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U. S. DEPARTMENT OF COMMERCE
LUTHER H. HODGES, Secretary
WEATHER BUREAU
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CLIMATOLOGICAL DATA

NATIONAL SUMMARY

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JANUARY 1962
Volume 13 No. 1

ASHEVILLE: 1962

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NOTE: Delayed data and corrections will be carried in the June and December issues of this publication.

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CLIMATOLOGICAL DATA

NATIONAL SUMMARY

Volume 13 No. 1 JANUARY 1962

GENERAL SUMMARY OF WEATHER CONDITIONS

One of the most severe and extensive cold spells in many years during the second and third weeks was responsible for below-normal average temperatures for January over virtually the entire country, even though the first and last weeks were abnormally mild. Damaging freezes occurred in the Southern States and Far Southwest, and snow fell on the west coast and in the deep South. Damaging glaze occurred in several areas, and blizzard conditions were reported locally in the North Central Interior. Heavy precipitation fell in much of the Southeast where it caused considerable flooding.

TEMPERATURE.--The month was as much as 8° colder than normal in the central Great Plains and Great Basin of the Far West, and several stations in the lower Missouri and middle Mississippi Valleys had their coldest Januarys since 1940, and some in the central Great Plains and northern Rockies their coldest since 1949.

The cold spell during the second and third weeks almost certainly will rank as one of the notable cold waves of the 20th century. In Texas the cold wave from the 9th to 12th was comparable to the disastrous cold waves of February 1951 and February 1899. Scattered stations in the South had their lowest temperatures since February 1899, including Tallahassee, Fla. (14° on the 13th), Mobile, Ala. (7° on the 11th), New Orleans, La. (13° on the 11th), and Brownsville, Tex. (19° on the 12th). At New Orleans, La., the temperature did not rise above freezing for a period of 67 consecutive hours on the 10th, 11th, and 12th, exceeding a 64-hour period in February 1899.

In Texas the Lavaca River at Hallettsville froze from bank to bank for the first time in 60 years (the river is 35 feet wide there). Galveston Bay at Texas City froze over from the shore to 100 yards out; long-time residents said this was the first such occurrence there in 62 years. Lakes and streams froze over in San Antonio and vicinity for the first time since 1918. Corpus Christi had a record low for January of 14°. Below-freezing temperatures overspread Florida on the 13th, causing some crop damage. Mobile, Ala., had 86 consecutive hours of subfreezing temperatures, a new record, and bays north of the Causeway were frozen over with 2 to 3 inches of ice except for channels.

The cold was also outstandingly severe in many northern areas. Denver, Colo., had 14 days with minima zero or below, the most there since 1875. Huron, S. Dak., had continuous subzero minima from the 17th through the 21st, the longest such period since 1936. Lowest temperature for the month was -55° recorded at stations in Wyoming, Colorado, and Montana. The -55° recorded at Sugar Loaf Reservoir, Colo., on the 10th was the lowest temperature ever recorded in Colorado during January, and -47° recorded at Eagle Nest, N. Mex., on the 11th was the lowest temperature ever recorded in that State during January. At the Minneapolis - St. Paul Weather Bureau Airport in Minnesota, the temperature remained at or below zero for 108 consecutive hours, the third longest such period on record.

PRECIPITATION. --Precipitation, relative to normal was spotty. Heaviest amounts fell in the Southeast where monthly totals ranged up to more than a foot in Georgia, Mississippi, North Carolina, and Tennessee, and considerable flooding occurred throughout the month.

Precipitation was less than 50 percent of normal in much of Texas, parts of the Pacific States, and in an area including portions of Nebraska, South Dakota, Minnesota, and Iowa. In most of the Florida Peninsula soil moisture was seriously short and a high fire hazard existed as a result of prolonged rainfall deficiencies.

SNOWFALL.--Monthly totals were generally above normal in areas that usually receive measurable snowfall, except in the Northeast where it was the least in many years. Snowfall also occurred at locations on the west coast and in the deep South where several years may pass without any snowfall at all.

Snowfall occurred at many locations in the deep South when the severe cold wave moved over the area during the second week. Montgomery, Ala., had an inch on the ground on the 10th, the most since 1948. Texarkana, Ark., had 7.5 inches on the 9th. Lake Charles, La., had a trace on the 10th. Meridian, Miss., had a 4-inch fall on the 9th and the ground was covered from the 10th through the 14th.

In the Midwest record to near-record amounts fell in the upper Mississippi and lower Missouri Valleys. At Chicago, Ill., 20.1 inches fell during the month which is about 300 percent of normal. Topeka, Kans., measured 18 inches for the month, a new record. At Kansas City, Mo., a total of 30.8 inches for January brought the seasonal amount through January up to 47.6 inches, a new record. St. Louis, Mo., had 13.2 inches, the most for January since 1909.

In the Northeast only 2.5 inches fell at Boston, Mass., the least there in January in 90 years. Concord, N. H., measured only 6.7 inches for the month; January totals there have been less only four times since 1871. Erie, Pa., and Providence, R. I., received only 50 percent of their normal January amounts.

In most of the Far West, the mountain snowpack was better than last year and the irrigation water outlook was much better than at the end of January 1961. In Nevada, however, the outlook was still for a shortage.

DESTRUCTIVE STORMS AND OTHER UNUSUAL WEATHER PHENOMENA.--Storm losses were nearly all a result of winter-type storms and freezes. Freezing in the South on 9-12th was one of the worst freezes of this century. Total freeze damage was many millions of dollars in the South, although no overall total is available. Some communities which estimated losses were as follows: Baton Rouge, La., $5 million; New Orleans, La., $15 million; and Meridian, Miss., $1 million. Damage consisted mostly of frozen car radiators, water pipes, and shrubs. There was also heavy damage to citrus in southern Texas and some losses of winter vegetables. Some crop damage occurred in Florida as a result of the freeze on the 13th.

Considerable glaze damage also occurred during the month. Jacksonville, Fla., reported glaze on the 11-12th as being among the worst on record there. Boston, Mass., had one of the most severe cases of glaze there in many years on the 6th. Lansing, Mich., reported severe glaze on the 5th, 1/4 to 1/2 inch thick. Glaze was 1/2 inch thick on wires at Wilmington, N. C., on the 11-12th, and Charleston, S. C., reported glaze with snow and sleet on the 11-12th.

The great mass of cold air which was responsible for extremely cold weather in North America during the second and third weeks of January was also notable for unusually high pressures measured in the continental United States. Numerous stations in the Rocky Mountains and Western Great Plains recorded their highest sea level pressures on record or for the month of January. Prior to January 1962 the highest sea level pressure measured in the United States outside Hawaii and Alaska was 31.29 inches at Lander, Wyo., December 20, 1924. The highest for Alaska was 31.32 inches measured at Bethel on December 21, 1937. Both these values were exceeded at Helena, Mont., on the 9th, when 31.40 inches was measured, a new high for the United States. The old record for the United States outside Alaska and Hawaii was also exceeded by 31.34 inches at Great Falls, Mont., and 31.31 inches at Casper, Wyo., on the 9th and by 31.30 inches at Havre and Missoula, Mont., on the 10th, and equaled at Grand Junction, Colo., on the 10th.

CONDENSED CLIMATOLOGICAL SUMMARY

JANUARY 1962

Section	Temperature						Precipitation			
	Monthly extremes						Monthly extremes			
	Station	Highest	Date	Station	Lowest	Date	Station	Greatest	Station	Least
		°F			°F			In.		In.
Alabama	Brewton 3SSE	81	25	Hamilton 3S	-8	11	Sylvania	11.39	Green Bay	3.06
Arizona	Yuma Valley	87	9	Alpine	-22	11	Greer	5.68	Wahweap	.05
Arkansas	2 Stations	77	31+	4 Stations	-12	11+	Malvern	8.91	Marshall	1.46
California	Indio US Date Garden	95	8	Jess Valley	-33	22	Bullards Bar PH	7.80	Death Valley	T
Colorado	Kit Carson	72	31	Sugar Loaf Res	-55	10	Crested Butte	4.88	Blanca	T
Connecticut	Falls Village	58	16	2 Stations	-5	31+	Groton	5.49	Cream Hill	2.93
Delaware	Bridgeville 1NW	64	6	Georgetown 5SW	3	12	Georgetown 5SW	6.19	2 Stations	2.51
Florida	Miles City Tower	90	23	Pensacola FAA AP	10	11	De Funiak Springs	6.53	Clewiston	.32
Georgia	Folkston 9SW	84	27	Blairsville Esp Sta	-4	11	Flat Top	14.89	Folkston 3SSW	1.97
Idaho	2 Stations	60	7	Obsidian 3SSE	-48	22	Burke 2ENE	5.53	Chilly Barton Flat	.07
Illinois	East St Louis Parks Col	68	3	3 Stations	-20	11+	Paris Waterworks	D6.42	Princeville 2NW	1.32
Indiana	Scottsburg	67	27	Paoli	-20	10	North Vernon 2SW	D7.05	2 Stations	2.16
Iowa	3 Stations	49	31+	Le Mars 2N	-30	20	Donnellson 4N	2.63	Dorchester 3S	.00
Kansas	Aetna 2S	75	31	Ellsworth	-19	20	Paola	3.05	Norcatur 2N	.09
Kentucky	Renfro Valley	74	27	Leburn 1E	-15	11	Russellville	8.02	La Grange 2NNW	1.41
Louisiana	Grand Isle LB Sta	85	24	4 Stations	-5	12	Franklinton	10.92	Burrwood WB	2.07
Maine	8 Stations	50	16+	Clayton Lake	-36	29	Machias	4.59	St. Francis	1.11
Maryland	Blackwater Refuge	68	25	Bittinger 2NW	-13	11	Salisbury	6.16	Hancock Fruit Lab	1.56
Massachusetts	Sandwich	61	7	Birch Hill Dam	-9	12	East Wareham	5.20	Hubbardston	1.86
Michigan	Monroe Sewage Plant	45	27+	Lupton 1SW	-30	19	Maple City	4.71	Cadillac 3WSW	.41
Minnesota	2 Stations	50	3	2 Stations	-45	17	Thief River Falls AP	2.39	2 Stations	.02
Mississippi	Canton	82	27	do	-10	12+	Macon 2NE	D12.60	Biloxi City	4.18
Missouri	Doniphan	70	3	Princeton	-24	11	Fisk	8.05	Waco	.72
Montana	Fort Benton	68	30	West Yellowstone	-55	10	Heron 2NW	3.39	Del Bonita	T
Nebraska	Broken Bow 2W	71	31	2 Stations	-30	20+	Tecumseh	1.57	2 Stations	.00
Nevada	Indian Springs	78	8	Mountain City RS	-40	21	Mt Rose Highway Sta	2.95	Indian Springs	T
New Hampshire	Keene	54	16+	First Conn Lake	-31	30	Lincoln	4.12	2 Stations	1.50
New Jersey	Toms River	65	15	High Point Park	-6	31	Atlantic City	4.83	Canton	1.73
New Mexico	Carlsbad FAA AP	75	21	Eagle Nest	-47	11	McCauley Ranch	3.57	Salt Lake 4NE	.04
New York	Bath	59	22	Chazy 3E	-30	31	Wanakena Ranger School	7.12	Ticonderoga	.98
North Carolina	Maysville 6SW	82	26	Celo 2S	-12	11	Haywood Gap	13.83	Red Springs	3.23
North Dakota	Bowman Court House	56	3	Medora 3NNE	-40	18	Walhalla	2.03	Reeder 14N	.07
Ohio	Ironton	71	26	Tom Jenkins Dam	-15	13	Higginsport	4.69	Marietta Lock 1	1.51
Oklahoma	Blanchard	78	29	Kenton	-12	11	Kiamichi Tower	5.95	Tipton 4S	.06
Oregon	Brookings	72	30	Seneca	-41	22	Government Camp	10.51	Arlington	.21
Pennsylvania	Waynesburg 2W	67	26	2 Stations	-15	10	Mercer 2NNE	4.82	Burnt Cabins 2NE	.96
Puerto Rico	Dos Bocas	93	2+	Guineo Reservoir	50	31+	Jajome Alto	16.24	Yauco 1S	.00
Rhode Island	Greenville	58	15	Greenville	2	31	Kingston	6.44	Woonsocket	3.93
South Carolina	9 Stations	80	27+	Caesars Head	4	11	Whitmire	8.42	Florence 2N	D2.45
South Dakota	Fort Meade	70	3	2 Stations	-33	20+	Lead	2.09	Bridgewater	T
Tennessee	Carthage	75	26	Mountain City 2	-15	11	Haw Knob	15.64	Dyersburg FAA AP	3.68
Texas	3 Stations	88	22+	3 Stations	-14	11+	Linden	7.05	Several Stations	.00
Utah	2 Stations	65	31+	2 Stations	-37	22	Alta	13.10	Hanksville FAA AP	.01
Vermont	Bennington 2NNW	54	15	West Burke	-26	30+	Somerset	4.66	Huntington Center	.95
Virginia	Mathews 1SSW	72	7	Chilhowie 1S	-17	11	Wakefield	9.74	Woodstock	1.27
Washington	2 Stations	67	31+	Chewelah 2S	-31	19	Rainier Paradise RS	14.11	4 Stations	.07
West Virginia	do	75	27	Kumbrabow State Forest	-22	11	Kumbrabow State Forest	D6.47	Petersburg	1.17
Wisconsin	Dodge	48	3	Couderay 2W	-42	18	Racine	3.72	Cashton 4SSE	T
Wyoming	2 Stations	64	3	Lamar RS	-55	10	Bondurant 3NW	2.74	Casper 2E	T

D Water equivalent of snowfall wholly or partly estimated, using a ratio of 1 inch water equivalent to every 10 inches of snowfall.

+ And also on an earlier date or dates.

NOTE: Dates in the above Condensed Climatological Summary apply to the period 24 hours prior to time of observation. In some cases the actual occurrence is on the calendar date preceding that shown. (See individual Climatological Data for times of observations).

CLIMATOLOGICAL DATA

ENGLISH UNITS

State and Station	Elevation (ground)	Pressure		Temperature											Average relative humidity	Precipitation							Wind					No. of days (sunrise to sunset)			Sky cover, tenths (sunrise to sunset)	Possible sunshine
												No. of days							No. of days		Snow, Sleet				Fastest mile							
		Station Ø	Sea level	Average maximum	Average minimum	Average	Departure from normal	Highest	Date	Lowest	Date	Max. 90 F. or above	Min. 32 F. or below	Average dew point		Total	Departure from normal	Greatest in 24 hours	01 inch or more	With thunderstorms	Total	Maximum depth on ground	Average speed	Prevailing direction	Speed	Direction	Date	Clear, 0-3	Partly cloudy, 4-7	Cloudy, 8-10		
ALABAMA	Ft.	Mb.	Mb.	F.	F.	F.	F	F.		F.				F.	%	In.	In.	In.			In.	In	M.p.h.		M.p.h.							%
BIRMINGHAM	610	996.9	1023.1	51	32	41.7	-3.8	69	26	1	11	0	17	33	69	8.64	3.61	2.52	15	0	3.8	4	9.8	N	42	SE	15	10	3	18	6.6	41
HUNTSVILLE	605	998.6	1022.8	48	29	38.8	-4.1	70	26	-2	11	0	19	31	67	8.53	3.31	2.15	16	1	4.9	5	9.3	ESE	28*	ENE	27+	7	4	20	6.9	
MOBILE	211	1020.3		59	38	48.9	-3.6	78	23	7	11	0	10			4.75	0.11	1.86	10	1	T	T	12.3		34*	NW	15+	11	6	14	5.7	
MONTGOMERY	195	1014.7	1023.1	56	38	46.8	-1.3	76	25	11	11	0	10	37	73	5.20	1.14	2.20	10	1	1.0	1	8.4	NW	31	W	6	9	6	16	6.1	46
ALASKA												B																				
ANCHORAGE	90	1010.5	1016.0	21	6	13.5	1.1	43	1	-22	27	0	31	5	72	0.88	0.08	0.26	9	0	12.1	9	5.6	N	30*	SE	30	5	5	21	7.6	31
ANNETTE	110	1013.9	1018.1	40	32	35.9	1.5	47	28	17	15	0	16	30	81	19.26	7.90	4.65	22	1	9.0	4	12.5	SSE	38*	SSE	1	4	3	24	8.3	
BARROW	22	1019.3	1019.9	6	-11	-2.4	13.8	31	19+	-39	26	0	31	-8	75	1.04	0.86	0.54	9	0	11.9	22	16.2	W	49*	E	12	6V	0V	2V		
BARTER ISLAND	39	1019.3	1021.2	5	-13	-4.0	12.8	39	19	-51	27	0	31	-10	72	4.08	3.68	2.25	8	0	35.0	33	21.3	W	58*	E	30	4X	0X	10X		
BETHEL	125	1018.3	1019.8	6	-8	-.8	-4.4	38	12	-30	29+	0	31	-9	68	0.32	-0.80	0.19	7	0	6.3	9	16.9	NNE	48*	SSW	12	17	3	11	4.5	
COLD BAY	94	1011.5	1015.9	28	18	22.7	-5.4	43	19	-5	29	0	27	17	79	2.53	0.21	0.89	11	0	3.1	5	18.6	N	60*	SSE	13	8	5	18	6.8	
CORDOVA	40	1011.9	1013.4	35	18	26.4	3.3	44	29+	-6	28+	0	28	20	78	6.88	0.78	1.49	17	0	31.7	7	6.7	ESE	23*	ESE	30	9	2	20	6.8	
FAIRBANKS	436	1004.1	1022.7	3	-18	-7.8	3.3	37	22+	-52	27+	0	31	-13	74	0.69	-0.20	0.19	12	0	8.9	21	3.7	N	23*	SW	22	8	2	21	7.2	
JUNEAU	17	1016.6	1017.6	32	21	26.7	1.6	45	1	-2	26	0	24	20	77	6.99	2.99	1.12	18	0	31.5	19	9.3	ESE	32*	ESE	1	6	2	23	7.9	29
KING SALMON	43	1013.9	1016.0	16	0	8.2	-5.2	42	21	-28	3	0	31	-1	70	0.94	-0.13	0.55	7	0	5.2	5	11.1	N	48*	E	8	12	3	16	5.6	
KOTZEBUE	10	1019.6	1020.3	6	-9	-1.8	3.9	32	15	-40	27	0	31	-8	76	0.40	0.01	0.15	9	0	8.3	13	15.7	ESE	44*	SE	13	12	4	15	5.6	
MC GRATH	334	1008.5	1022.3	1	-21	-9.7	-0.7	35	21	-52	26	0	31	-19	63	0.83	-0.43	0.51	7	0	14.7	38	4.5	N	23*	SW	22+	9	6	16	6.0	
NOME	13	1019.0	1019.8	11	-4	3.4	-1.0	35	15	-30	27+	0	31	-4	72	0.93	-0.09	0.33	12	0	11.2	27	13.9	E	46*	NW	22+	10	6	15	5.9	2[illegible]
ST. PAUL ISLAND	22	1016.6	1017.7	25	15	20.1	-5.3	37	14+	-5	31+	0	30	15	81	1.08	-0.73	0.35	12	0	6.0	8	19.1	N	56*	SE	10	11	6	14	5.6	
SHEMYA	122	1005.1	1008.6	36	30	33.1	1.8	40	18+	24	13+	0	19	29	84	1.92	-0.58	0.70	19	0	6.9	2	19.7	SE	58*	SSE	15	0	3	28	9.2	
YAKUTAT	28	1013.2	1014.4	33	21	26.8	-0.5	41	30+	-3	27	0	24	23	86	16.82	5.96	5.11	20	0	15.5	13	7.8	E	29*	ESE	29+	3	6	22	8.1	
ARIZONA																																
FLAGSTAFF	6993	790.7	1023.4	40	14	27.1	-1.2	56	8	-11	15	0	30	15	65	2.65	0.82	1.49	7	0	30.8	19	9.2	NE	37*	NNE	10	14	3	14	5.0	
PHOENIX	1109	979.7	1019.7	63	40	51.5	0.8	76	31+	22	12	0	5	29	48	1.20	0.47	0.73	8	0	T	T	5.6	E	28*	SSW	21	15	6	10	4.5	78
PRESCOTT	5014	849.3	1021.6	49	23	35.8	-1.3	65	8	5	15	0	30	20	60	1.48	0.47	0.97	6	0	5.3	3	5.6	S	56	SW	20	15	5	11	4.5	77
TUCSON	2584	928.5	1018.3	60	38	49.0	-0.3	73	31+	21	12+	0	7	28	52	1.39	0.57	0.53	7	1	0.0	0	10.3	ESE	40	E	10	16	7	8	4.1	84
WINSLOW	4880	854.7	1026.0	34	13	23.6	-7.9	57	20	-4	3	0	31	18	81	0.83	0.40	0.51	5	1	8.3	5	7.0	ESE	40*	S	21+	9	5	17	6.6	
YUMA	199	1014.6	1019.9	70	44	56.8	0.4	84	8	28	12	0	1	25	36	0.48	0.09	0.47	2	0	0.0	0	8.2	N	32	N	10	18	11	2	2.8	91
ARKANSAS																																
FORT SMITH	449	1005.8	1023.6	45	23	34.1	-5.7	70	29	-3	12+	0	26	26	75	3.08	0.42	1.06	9	4	3.9	4	7.8	ENE	31	W	7	12	4	15	6.1	48
LITTLE ROCK	257	1010.0	1023.8	48	27	37.2	-3.4	72	30	-4	12	0	21	27	72	6.84	1.62	3.62	13	3	6.0	5	9.0	WSW	34	NW	5	8	7	16	6.4	44
TEXARKANA	361			51	30	40.4	-4.7	73	30	0	10	0	15	33	79	6.22	1.38	2.08	11	0	7.5	7	8.1	WNW								
CALIFORNIA																																
BAKERSFIELD	494	1005.4	1024.1	52	33	42.6	-4.8	67	29+	23	24	0	16	35	81	0.59	-0.58	0.42	6	0	T	0	6.3	WNW	31*	SE	10	9	8	14	5.9	
BISHOP	4108	879.1		55	22	38.3	1.5	73	7	4	23	0	28			0.49	-0.50	0.47	4	0	1.2	1						15	5	11	4.3	
BLUE CANYON	5280	842.5		50	34	41.9	5.8	71	31	8	22	0	13			5.60	-6.10	3.89	5	0	37.8	36	10.8	ENE	49	ENE	22	17	6	8	3.9	
BURBANK	699	993.2	1019.6	69	44	56.2	2.6	87	7	34	22+	0	0	32	48	2.55	-0.59	1.33	4	0	T	0	6.9	S	29*	NE	24	19	4	8	3.3	
EUREKA U	43	1022.7		52	39	45.2	-2.2	66	10	28	21	0	4			3.26	-3.44	1.91	7	0	0.8	1	5.2	N#	27	SW	19	10	10	11	5.6	70
FRESNO	326	1010.5	1022.7	50	33	41.4	-4.1	65	28	25	24+	0	15	35	86	1.12	-0.91	0.77	5	0	2.2	2	3.7	NW	26	NW	20	6	9	16	6.7	48
LONG BEACH	34	1018.3	1019.7	66	43	54.7	2.3	82	7	37	14	0	0	39	63	2.35	0.36	1.37	4	1	T	0	6.4	WNW	32*	E	10	18	8	5	3.6	
LOS ANGELES	97	1015.9	1019.8	67	46	56.1	2.7	86	7	38	15+	0	0	39	61	2.68	0.02	1.23	4	1	T	T	5.8	E	38*	NW	21	18	7	6	3.5	
LOS ANGELES U	312			67	48	57.5	1.7	85	7	39	22	0	0	36	51	2.56	-0.51	1.59	5	2	T	0	6.2	N#	35	SE	22	21	2	8	3.4	83
MT SHASTA R	3544	899.1		43	23	32.6	-0.7	61	8	-2	21	0	28			2.02	-4.34	1.53	3	0	19.9	9						21	4	6	3.4	
OAKLAND	3	1022.0	1022.5	58	38	48.2	0.2	75	8	30	23	0	5	35	65	1.03	-2.80	0.75	3	0	T	T	5.3	NNE	29*	NW	19	15	6	10	4.5	
POINT ARGUELLO	367	1006.4		62	39	50.2	0.5	78	7	30	15+	0	4			1.53	-0.82	0.70	5	0	T	T	7.5		30*	NW	21	16	6	9	4.1	
RED BLUFF	341	1010.2	1023.5	58	35	46.5	1.0	77	8+	21	21	0	12	29	59	1.25	-3.04	0.78	4	0	T	T	10.0	NNW	56	SE	19	18	3	10	4.2	79
SACRAMENTO	17	1022.4	1023.4	51	32	41.8	-4.4	66	10	25	25+	0	17	34	82	1.00	-2.18	0.89	2	0	T	T	5.7	SE	34	S	19	14	4	13	5.4	63
SACRAMENTO U	23			53	35	44.1	-2.8	66	30+	25	22	0	8			0.95	-2.63	0.80	2		T	T										
SANDBERG R	4517	865.2		47	35	40.7	0.8	67	7	19	22	0	13			2.07	-0.48	1.77	4	0	18.4	18	17.6	NE	48*	ENE	10	18	5	8	3.4	
SAN DIEGO	13	1015.9	1019.1	67	46	56.7	1.2	83	28	40	15+	0	0	40	60	2.71	0.70	1.47	6	0	0.0	0	5.7	NW	31	S	20	18	9	4	3.4	80
SAN FRANCISCO	8	1022.0	1022.9	56	38	47.3	-1.3	71	9	30	21	0	7	38	75	1.70	-2.31	1.07	4	0	1.5	1	6.1	WNW	44	SSW	19	14	8	9	4.5	
SAN FRANCISCO U	52			59	45	51.9	1.2	79	8	32	21	0	1			1.08	-3.47	0.77	3	0	T	0	6.0	NW#	29	SW	19					79
SANTA MARIA	238	1011.9	1020.9	65	36	50.4	0.2	83	8+	26	14	0	7	37	66	2.01	-0.83	1.15	5	0	T	0	4.1	WNW	17*	NNE	23+	18	6	7	3.6	
COLORADO																																
ALAMOSA	7536	770.4		33	-3	15.2	-2.2	48	31	-24	11	0	31			0.08	-0.18	0.05	2	0	1.6	2						16	5	10	4.3	

See footnotes at end of table

CLIMATOLOGICAL DATA

ENGLISH UNITS

State and Station	Elevation (ground)	Pressure		Temperature								No. of days			Average relative humidity	Precipitation							Wind					No. of days sunrise to sunset			Sky cover, tenths (sunrise to sunset)	Possible sunshine
		Station Ø	Sea level	Average maximum	Average minimum	Average	Departure from normal	Highest	Date	Lowest	Date	Max. 90 F. or above	Min. 32 F. or below	Average dew point		Total	Departure from normal	Greatest in 24 hours	No. of days .01 inch or more	No. of days With thunderstorms	Snow, Sleet Total	Snow, Sleet Maximum depth on ground	Average speed	Prevailing direction	Fastest mile Speed	Fastest mile Direction	Fastest mile Date	Clear, 0-3	Partly cloudy 4-7	Cloudy, 8-10		
COLORADO	Ft.	Mb.	Mb.	F.	F.	F.	F.	F		F.				F.	%	In.	In	In.			In	In.	M.p.h.		M.p.h.							%
COLORADO SPRINGS	6173	811.0	1025.4	36	8	22.1	- 6.5	63	31	-20	10	0	31	9	62	0.42	0.13	0.32	5	0	6.4	5	8.4	NNE	30*	SW	20	14	5	12	4.7	
DENVER	5283	838.1	1024.4	33	6	19.5	-10.5	63	2	-24	10+	0	31	4	56	1.33	0.78	1.02	10	0	17.2	12	8.4	SSW	36	NE	6	15	3	13	4.8	76
GRAND JUNCTION	4849	864.2	1027.6	33	12	22.9	- 3.1	46	31+	- 3	16	0	31	13	67	0.39	-0.25	0.22	6	0	4.6	4	5.1	ENE	32	NE	9	16	4	11	4.8	69
PUEBLO	4639	858.1	1024.2	41	6	23.5	- 6.5	69	31	-25	11+	0	31	10	64	0.24	-0.07	0.20	5	0	7.6	6	7.6	W	56	N	6	18	4	9	4.4	79
CONNECTICUT																																
BRIDGEPORT	7	1019.5	1020.8	37	22	29.5	- 0.7	51	15	9	31	0	26	19	65	3.57	-0.12	2.42	10	0	1.8	1	14.3	WNW	39*	NNW	30	9	7	15	6.1	
HARTFORD	169	1012.9	1019.2	35	16	25.3	- 1.3	54	15	3	12	0	29	15	50	3.87	0.29	2.44	8	0	1.6	3	9.2	N	36	SW	30	8	8	15	6.5	57
NEW HAVEN	6	1020.3		37	21	28.9	- 0.7	52	15	8	31	0	26			3.92	-0.04	2.85	12	0	1.8	2	9.3		38	W	23	9	5	17	6.5	59
DELAWARE																																
WILMINGTON	78	1017.6	1021.0	40	23	31.2	- 2.2	57	7+	9	31+	0	27	22	69	2.51	-0.89	1.60	10	1	1.2	T	11.4	NW	29*	NNW	30+	7	8	16	6.7	
DIST.OF COLUMBIA																																
WASH NATL AP	14	1017.0	1021.6	43	27	34.6	- 2.3	62	4	9	11	0	24	21	54	1.59	-1.44	0.95	9	1	2.0	1	8.8	S	40	SW	15	7	8	16	6.7	46
FLORIDA																																
APALACHICOLA U	13	1020.1		59	44	51.6	- 3.5	72	25	22	11	0	4			2.05	-1.09	1.25	5	0	T	T	8.0		33	SE	5	12	5	14	5.5	69
DAYTONA BEACH	31	1020.5	1022.4	68	47	57.2	- 2.0	84	27	31	13	0	4	50	79	0.90	-1.06	0.61	6	0	0.0	0	9.1	N	36*	W	6	7	11	13	6.5	
FORT MYERS	13	1020.4		77	53	65.2	1.7	88	22	32	13	0	1			0.43	-1.09	0.19	6	0	0.0	0	9.6		27*	N	12	11	13	7	5.3	
JACKSONVILLE	24	1021.5	1022.9	64	44	53.6	- 2.3	84	27	24	13	0	3	46	79	2.16	-0.29	0.91	10	2	0.0	T	9.4	N	36	SW	6	7	5	19	6.9	38
KEY WEST	5	1019.4	1020.9	75	65	69.8	0.2	82	19	54	13+	0	0	62	78	0.95	-0.58	0.63	7	0	0.0	0	11.2	NE	30	N	12	11	15	5	4.8	71
LAKELAND U	214			72	50	61.0	- 0.7	84	27+	31	13	0	1			1.41	-0.64	0.46	5	0	0.0	0	7.7					9	13	9	5.5	59
MIAMI BEACH	9			75	64	69.5	0.4	82	8	44	3	0	0			1.45	-0.23	0.39	9	0	0.0	0	7.8		28	E	21+	8	15	8	5.3	56
MIAMI	7	1019.0	1020.5	76	60	68.1	1.2	82	19+	38	3	0	0	59	75	1.46	-0.57	0.50	7	0	0.0	0	9.7	ESE	27*	S	6	8	14	9	5.7	
ORLANDO	106	1017.5	1022.4	72	49	60.9	0.5	87	23	31	13	0	1	52	78	1.11	-0.89	0.44	5	1	0.0	0	9.7	NNE	23*	NW	28+	6	16	9	5.9	
PENSACOLA U	13			59	42	50.2	- 3.9	75	23	15	11	0	5			4.02	-0.26	1.95	13	2	T	T	10.3		26	N	10+					55
TALLAHASSEE	58	1020.2	1023.0	63	40	51.0	- 2.9	76	25+	14	13	0	10	44	81	1.68	-1.74	0.77	8	1	0.0	0	10.4	S	32*	SSW	6	9	5	17	6.3	
TAMPA	19	1020.6	1022.4	71	50	60.5	- 0.7	83	22	29	13	0	1	52	76	1.40	-0.73	1.05	6	2	0.0	0	11.5	N	31*	W	28+	6	16	9	5.8	67
WEST PALM BEACH	15	1019.8	1021.1	77	58	67.2	0.3	84	27	36	3	0	0	59	76	1.23	-1.25	0.69	7	0	0.0	0	10.2	NNW	27*	SSE	6	10	10	11	5.8	
GEORGIA																																
ATHENS	803	992.3	1022.5	51	33	41.9	- 2.7	71	26	15	13	0	18	35	79	5.23	0.34	1.95	14	0	2.0	1	9.0	S	29*	NW	15	7	4	20	6.9	
ATLANTA	975	979.7		50	32	41.0	- 3.8	69	26	8	11	0	17			5.24	0.80	1.43	14	0	3.5	2	10.3		25*	NW	10	7	8	16	6.6	44
AUGUSTA	143	1014.7	1022.5	56	35	45.6	- 2.0	76	26	14	13	0	14	37	77	6.50	3.51	2.26	10	1	T	T	6.6	N	27*	NW	15	8	5	18	7.2	
COLUMBUS	385	1008.3		55	35	45.0	- 2.8	72	26+	13	11	0	14			5.94	1.88	2.56	13	1	T	T	9.6		32*	SW	6	9	7	15	6.4	
MACON	356	1008.3	1022.6	56	36	46.2	- 3.0	75	26	18	13+	0	11	36	73	7.78	4.41	4.44	11	2	T	T	7.3	NW	38	S	6	8	5	18	6.7	47
ROME	637	999.2		48	29	38.6	- 3.5	71	26	5	13+	0	21			8.06	2.55	2.20	15	0	3.3	2						8	5	18	6.6	
SAVANNAH	48	1020.3	1023.3	60	38	49.0	- 2.7	81	26	16	13	0	8	41	79	5.11	2.33	2.09	8	2	T	T	9.4	WSW	33	W	6	8	6	17	6.5	61
THOMASVILLE U	283			61	41	51.0	- 2.7	77	25+	18	13	0	4			2.75	-0.83	0.88	10	0	T	T										
HAWAII																																
HILO	31	1013.2	1015.5	81	63	72.1	1.3	86	30+	59	27+	0	0	63	76	2.51	-9.31	0.75	11	2	0.0	0	9.3	SW	35*	S	6	6	14	11	6.0	56
HONOLULU	7	1014.6	1015.0	81	68	74.6	2.1	84	24+	63	4	0	0	64	72	2.20	-1.56	0.97	11	1	0.0	0	12.5	ENE	43	S	6	7	11	13	6.4	66
LIHUE	115	1008.8	1014.6	80	66	72.8	1.9	84	20	59	1	0	0	65	78	14.24	8.73	6.87	21	3	0.0	0	10.6	S	42	SW	6	6	9	16	6.7	57
IDAHO																																
BOISE	2838	929.9	1030.9	28	14	21.1	- 7.5	51	8+	-12	23+	0	31	13	70	1.00	-0.32	0.48	8	0	9.2	7	6.8	SE	24	SE	14	5	8	18	7.0	52
IDAHO FALLS 42NW R	4790			21	- 8	6.3	- 7.1	38	7	-42	23	0	31			0.52	-0.03	0.33	6													
IDAHO FALLS 46W R	4933	853.7		23	- 3	10.0	- 5.4	42	7	-40	21	0	31			0.80	0.07	0.54	6	0	8.6	9	4.5	WSW	24A	SW	7					
LEWISTON	1413	974.3		40	24	32.1	1.4	60	7	- 3	21	0	21			0.51	-0.59	0.32	7	0	4.0	2						5	3	23	8.1	
POCATELLO	4444	868.9	1031.1	27	5	15.7	- 6.6	44	7	-30	22	0	31	10	80	1.17	-0.04	0.69	10	0	17.4	12	8.4	WSW	47	S	20	6	8	17	7.2	49
ILLINOIS																																
CAIRO U	314	1009.3		41	25	33.0	- 4.4	61	26	- 2	10	0	25			5.74	1.28	2.18	13	4	2.7	2	10.2	SW#	35	NE	27	8	6	17	6.5	49
CHICAGO O HARE	658	994.0	1020.0	24	9	16.8		42	4+	-15	10	0	31	10	76	2.39		0.91	10	0	18.6	10	12.9	SW	35*	N	30	6	8	17	6.7	
CHICAGO MIDWAY	610	996.2	1020.3	25	11	18.1	- 8.0	42	4	-12	10	0	30	11	73	2.53	0.67	0.80	12	0	20.1	12	12.5	W	38	NW	30	6	8	17	6.8	38
MOLINE	582	997.9	1021.7	25	8	16.2	- 6.9	43	4+	-14	20	0	31	7	65	2.08	0.47	0.68	8	0	11.2	10	9.9	WNW	29	NW	8	7	6	18	6.8	57
PEORIA	652	998.3	1022.1	25	8	16.5	- 9.2	44	3	-14	11+	0	31	8	68	1.97	0.09	0.76	10	0	10.5	7	10.7	S	27	W	8	8	4	19	6.7	57
ROCKFORD	728	991.4	1020.4	23	7	14.5	- 7.5	40	3	-16	11	0	31	9	78	2.36	0.38	0.70	11	0	16.0	12	11.5	WNW	24*	SW	29	8	7	16	6.7	

See footnotes at end of table

CLIMATOLOGICAL DATA

ENGLISH UNITS

JANUARY 1962

State and Station	Elevation (ground)	Pressure			Temperature											Average relative humidity	Precipitation							Wind					No. of days (sunrise to sunset)			Sky cover tenths (sunrise to sunset)	Possible sunshine
												No of days							No. of days		Snow, Sleet				Fastest mile							
		Station ○	Sea level	Average maximum	Average minimum	Average	Departure from normal	Highest	Date	Lowest	Date	Max. 90° F. or above	Min. 32° F. or below	Average dew point		Total	Departure from normal	Greatest in 24 hours	.01 inch or more	With thunderstorms	Total	Maximum depth on ground	Average speed	Prevailing direction	Speed	Direction	Date	Clear, 0-3	Partly cloudy, 4-7	Cloudy, 8-10		
ILLINOIS	Ft.	Mb.	Mb.	F.	F.	F.	F.	F.		F				F.	%	In.	In.	In			In.	In	M.p.h.		M.p.h.							%
SPRINGFIELD	588	997.5	1022.1	28	12	20.2	- 8.2	50	4+	-11	10	0	29	13	74	3.04	1.15	1.33	12	0	12.7	6	12.3	WNW	35	S	13	6	10	15	6.6	57
INDIANA																																
EVANSVILLE	381	1005.7	1022.3	37	19	28.3	- 5.9	63	26	-11	10	0	28	23	81	4.38	0.40	2.09	12	2	2.9	1	9.4	NW	29	SW	6	8	5	18	6.7	44
FORT WAYNE	791	987.7	1020.7	28	15	21.8	- 4.7	45	26	- 9	10	0	30	16	77	3.10	0.43	0.98	14	0	4.2	4	13.2	SW	42	SW	7	7	4	20	6.9	49
INDIANAPOLIS	793	989.8	1021.2	32	16	23.7	- 5.4	56	26	-12	10	0	28	18	77	4.58	1.53	1.36	12	0	5.1	4	9.1	WSW	25	NW	15+	5	7	19	7.3	36
SOUTH BEND	768	990.1	1019.7	27	12	19.1	- 6.5	42	5	-12	10	0	31	14	79	3.36	1.16	0.98	19	0	18.7	8	12.5	SW	30*	NNW	30	6	6	19	7.2	
IOWA																																
BURLINGTON	694	995.1	1022.3	26	8	17.3	- 7.1	46	3	-13	20	0	31	10	72	1.99	0.35	0.68	12	0	10.5	7	11.7	WNW	33	NW	8	8	7	16	6.6	61
DES MOINES	948	990.3	1023.6	22	4	13.0	- 8.3	42	3	-19	20	0	31	7	79	0.54	-0.76	0.30	6	0	4.2	13	10.0	NW	28	NW	8+	6	6	19	7.1	48
DUBUQUE	1065	994.3		21	5	12.9	- 6.3	39	26	-13	9	0	31			1.46	-0.37	0.50	10	0	9.7	12						6	4	21	7.2	
SIOUX CITY	1095	979.2	1023.1	25	4	14.5	- 4.2	49	31	-18	20	0	31	8	76	0.32	-0.46	0.19	6	0	2.9	5	11.1	NNW	38	N	4	9	5	17	6.2	63
WATERLOO	868	987.7	1021.9	21	2	11.6	- 6.8	41	3	-22	20	0	31	7	78	0.10	-1.05	0.04	6	0	1.5	8	10.9	NW	33*	NNW	7	6	6	19	7.2	
KANSAS																																
CONCORDIA J	1375	971.2		33	14	23.7	- 4.3	61	31	- 7	20	0	30	14	69	0.92	0.22	0.50	9	0	4.7	3	8.7	W#	31	NW	7	11	8	12	5.5	65
DODGE CITY	2594	931.1	1023.1	38	15	26.5	- 4.6	69	31	- 8	11	0	30	16	70	0.56	-0.01	0.25	6	0	3.4	3	11.4	NNW	44	N	5	11	6	14	5.5	67
GOODLAND	3645	890.4	1022.9	37	10	23.1	- 4.3	67	31	-17	19	0	31	12	67	0.34	-0.35	0.26	5	0	6.8	3	13.0	WSW	44*	NW	6	12	9	10	5.0	
TOPEKA	877	986.0	1023.8	31	11	21.2	- 7.6	53	3	-10	23+	0	30	14	75	1.99	0.97	0.69	8	0	[illegible]	9	12.6	NNW	52	[illegible]	13	9	6	16	6.1	65
WICHITA	1321	972.1	1023.3	35	16	25.6	- 6.4	57	29+	-12	20	0	29	18	78	1.07	0.26	0.58	7	0	18.5	17	11.6	N	49	N	7	11	4	16	6.0	57
KENTUCKY																																
COVINGTON	869	988.1	1021.7	37	20	28.2	- 4.4	65	26	- 9	11+	0	28	22	60	3.98	0.42	1.85	10	1	3.9	2	11.8	SW	40*	W	26	6	5	20	7.4	
LEXINGTON	979	984.7	1022.1	39	21	29.9	- 4.6	68	26	- 9	11	0	27	25	70	4.29	-0.65	1.31	12	0	6.1	4	12.6	SW	39*	SW	6	8	5	18	6.9	
LOUISVILLE	474	1002.1	1022.1	40	21	30.5	- 4.0	69	26	- 6	10	0	27	25	63	[illegible]	-0.67	1.58	13	1	4.3	2	9.1	S	34	W	8	9	3	19	7.2	39
LOUISIANA																																
ALEXANDRIA	[illegible]	1018.2	1023.1	56	33	44.2		75	30+	5	12	0	15	37	78	6.00		1.85	10	3	1.4	1	7.0	N				9	5	17	6.3	
BATON ROUGE	64	1019.8	1022.9	59	37	47.8	- 4.6	80	25	10	11	0	12	40	78	6.41	1.63	2.70	10	1	0.3	T	9.8	NNE				10	4	17	6.2	
BURRWOOD	5		1022.8	60	45	52.4	- 5.1	75	24	21	11	0	4	48	85	[illegible]	[illegible]	1.00	7	2	T	0	13.6	NE								
LAKE CHARLES	14	[illegible]	1022.3	58	38	48.0	- 5.2	76	31	15	11+	0	8	39	74	[illegible]	-0.43	1.22	8	1	T	T	16.3	N	58*	NW	14	12	2	17	6.3	
NEW ORLEANS	3	[illegible]	[illegible]	61	40	50.5	- 3.6	81	26	14	11	0	10	43	79	4.19	[illegible]	1.10	9	3	T	T	8.6	[illegible]	27*	N	[illegible]	10	4	17	5.9	
NEW ORLEANS [illegible]	[illegible]	[illegible]		62	41	51.1		80	25	13	11	0	8			3.47		0.99	10		T	T						10	11	10		
SHREVEPORT	[illegible]	[illegible]	[illegible]	[illegible]	32	42.4	- 5.1	76	30	3	12	0	15	35	76	4.26	-0.54	1.52	10	2	[illegible]	4	10.1	SSE				8	7	16	6.3	52
MAINE																																
CARIBOU	[illegible]	[illegible]	[illegible]	21	- 2	9.7	- 0.8	45	16+	-22	31	0	31	12	67	[illegible]	[illegible]	0.37	15	0	12.7	6	13.6	WSW	48*	SW	16	7	10	14	6.3	
PORTLAND	51	[illegible]	[illegible]	[illegible]	10	20.6	- 1.2	48	15	-10	31	0	31	14	51	2.68	[illegible]	[illegible]	9	[illegible]	9.4	7	10.4	SW	43	E	15	11	6	14	5.7	54
MARYLAND																																
BALTIMORE	146	[illegible]	1021.3	[illegible]	23	32.4	- 2.4	[illegible]	25	3	11	0	25	19	50	2.02	-1.41	1.31	[illegible]	[illegible]	[illegible]	1	9.9	NW	34	SW	[illegible]	7	[illegible]	17	6.5	46
BALTIMORE U	14			[illegible]	27	34.5	- 2.6	[illegible]	25+	10	11	0	22			[illegible]	-1.31	1.45	7													
FREDERICK	[illegible]			[illegible]	21	30.2	- 2.7	[illegible]	25	[illegible]	12	0	28			[illegible]	[illegible]	[illegible]	[illegible]		[illegible]	1										
MASSACHUSETTS																																
BLUE HILL OBS R	629	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	- 1.2	55	15	[illegible]	[illegible]	[illegible]	28		61	[illegible]	[illegible]	[illegible]	[illegible]		[illegible]	[illegible]	17.5	[illegible]	[illegible]	NW	[illegible]					[illegible]
BOSTON	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	- 1.2	56	15	[illegible]	31	[illegible]	26	17	50	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	NW	[illegible]	[illegible]	11	12	6.1	[illegible]
NANTUCKET	43	1018.4	[illegible]	[illegible]	[illegible]	[illegible]	- 0.6	54	15	10	31	[illegible]	25	23	71	[illegible]	[illegible]	[illegible]	17	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	16	[illegible]	[illegible]
PITTSFIELD	[illegible]			[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	31	[illegible]	30			[illegible]	[illegible]	[illegible]	13		[illegible]	[illegible]										
WORCESTER	986	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	61	[illegible]	[illegible]	[illegible]	[illegible]	30	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	11.0	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	13	[illegible]	
MICHIGAN																																
ALPENA	689	[illegible]		[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	25	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
DETROIT	619	[illegible]	1017.6	[illegible]	16	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
DETROIT [illegible]	633	[illegible]	1019.3	[illegible]	14	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
DETROIT WILLOW RUN	721	[illegible]	1019.1	[illegible]	14	21.4	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
ESCANABA	594	993.3		21	6	13.3	[illegible]	39	26+	[illegible]	18	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
FLINT	766	[illegible]	1019.2	[illegible]	[illegible]	17.8	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
GRAND RAPIDS	681	[illegible]	1019.1	[illegible]	[illegible]	[illegible]	[illegible]	41	3	- 7	19	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

See footnotes at end of table.

CLIMATOLOGICAL DATA

ENGLISH UNITS

State and Station	Elevation (ground)	Pressure		Temperature												Precipitation							Wind					No. of days (sunrise to sunset)				
												No. of days							No. of days		Snow, Sleet				Fastest mile							
		Station Ø	Sea level	Average maximum	Average minimum	Average	Departure from normal	Highest	Date	Lowest	Date	Max. 90 F. or above	Min. 32 F. or below	Average dew point	Average relative humidity	Total	Departure from normal	Greatest in 24 hours	.01 inch or more	With thunderstorms	Total	Maximum depth on ground	Average speed	Prevailing direction	Speed	Direction	Date	Clear, 0-3	Partly cloudy, 4-7	Cloudy, 8-10	Sky cover, tenths (sunrise to sunset)	Possible sunshine
MICHIGAN	Ft.	Mb.	Mb.	F.	F.	F.	F.	F.		F.				F.	%	In.	In.	In.			In.	In.	M.p.h.		M.p.h.							%
LANSING	852	984.5	1018.8	26	10	17.7	- 6.6	41	3	-13	19	0	31	12	76	2.83	0.87	0.75	19	0	19.2	11	15.0	SSW	38	W	22	5	7	19	7.3	38
MARQUETTE U	677	988.1		21	8	14.2	- 5.3	39	3	-13	18	0	31			1.38	-0.51	0.28	18	0	24.1	22	9.6	W#	31	NW	30	4	5	22	7.9	38
MUSKEGON	627	994.3	1018.7	27	16	21.4	- 3.6	40	3	- 5	18	0	30	16	80	3.99	1.89	1.07	23	0	66.6	18	11.1	WNW	29*	SW	14+	1	2	28	9.2	
SAULT STE MARIE	721	992.8	1016.0	18	2	10.4	- 4.9	34	3	-13	31+	0	31	5	81	2.59	0.52	0.48	28	0	38.5	29	11.1	WSW	35*	NW	30+	1	9	21	8.3	32
MINNESOTA																																
DULUTH	1426	974.8	1019.0	12	- 6	3.4	- 5.3	36	3	-33	17	0	31	- 4	68	0.88	-0.27	0.25	15	0	14.2	16	11.9	NW	47	NW	26	7	7	17	7.0	38
INTERNATIONAL FALLS	1179	975.5	1020.1	9	-15	- 3.0	- 6.1	32	24	-40	17	0	31	-11	64	0.94	0.10	0.18	17	0	10.6	16	9.0	NW	25*	NW	24+	7	9	15	6.6	
MINNEAPOLIS	822	982.3	1021.4	16	- 2	7.1	- 5.3	40	3	-28	18	0	31	- 1	69	0.55	-0.15	0.17	10	0	5.9	7	11.3	NW	28	NW	8	4	12	15	7.2	45
ROCHESTER	1297	969.9	1020.6	17	1	9.0	- 5.6	39	3	-21	17	0	31	3	76	0.17	-0.74	0.10	6	0	2.5	7	13.6	NW				3	6	22	7.6	
ST CLOUD	1034	980.6	1021.4	16	- 4	6.2	- 3.9	42	3	-28	17	0	31		68	0.67	-0.05	0.19	9	0	10.9	11						7	6	18	6.9	
MISSISSIPPI																																
JACKSON	305	1010.6	1023.1	54	32	42.7	- 5.3	79	26	- 1	12	0	16	34	67	7.06	2.12	2.08	13	1	4.0	4	7.3	N	33	N	14	10	4	17	6.2	48
MERIDIAN	292	1008.9	1023.4	55	32	43.1	- 5.0	73	30	0	12	0	16	36	81	8.12	3.43	2.62	9	2	4.0	4	8.2	S	25*	N	10+	11	3	17	6.0	
VICKSBURG U	234	1013.3		52	33	42.6	- 6.4	76	26	2	11	0	10			7.96	2.83	2.62	13	3	3.0	3	9.1		32	S	14	10	3	18	6.3	45
MISSOURI																																
COLUMBIA	778	992.0	1021.8	32	14	23.3	- 7.0	60	3	- 8	10	0	29	16	75	1.66	-0.05	0.59	10	0	11.7	10	11.0	WSW	27	S	13+	10	7	14	6.1	54
KANSAS CITY	742	986.1	1023.0	32	15	23.5	- 7.2	51	4+	- 5	20+	0	28	15	71	2.95	1.54	0.92	9	0	30.5	21	8.9	SW	31	NW	9	9	8	14	5.9	54
ST JOSEPH	809	986.4		28	9	18.9	- 8.3	45	29+	-11	20	0	31			1.83	0.63	0.56	9	0	15.1	14	12.3	S	35*	NW	9+	10	11	10	5.5	
ST LOUIS	535	1000.6	1022.5	34	16	24.7	- 7.2	62	3	- 8	10	0	28	16	73	3.56	1.58	1.28	12	0	13.2	7	11.8	WNW	33	SE	13	8	9	14	6.4	50
ST LOUIS RFC	465			36	20	27.9	- 5.6	66	3	- 7	10	0	25			4.32	2.16	1.50	13		10.4	6										
SPRINGFIELD	1265	972.9	1022.7	38	17	27.0	- 6.6	61	3	- 8	20+	0	27	19	74	2.03	0.07	0.59	10	1	8.1	5	12.3	SSE	34	NW	7	10	4	17	6.2	52
MONTANA																																
BILLINGS	3567	894.7	1024.5	29	10	19.6	- 3.6	60	31	-25	21	0	25	6	58	1.90	1.36	0.84	11	0	23.2	13	17.7	WSW	38	SW	10	5	11	15	6.7	69
GLASGOW	2277	946.5		22	2	11.9	2.1	49	3+	-26	18	0	31	7	78	0.34	-0.14	0.07	9	0	3.0	2						4	7	20	7.3	
GREAT FALLS	3662	891.6	1024.2	28	10	19.0	- 3.6	61	31+	-25	21+	0	23	8	65	1.28	0.67	0.69	11	0	14.7	9	15.7	SW	47	SW	24	7	6	18	6.9	51
HAVRE	2582	930.2		26	6	16.0	2.1	57	31	-30	21	0	26			0.18	-0.31	0.04	1	0	3.1	2	12.5	SW#	42	NW	6	7	11	13	6.6	64
HELENA	3893	878.4	1028.6	26	6	15.7	- 2.9	56	31+	-32	21	0	26	4	61	0.67	0.20	0.20	11	0	10.1	6	8.8	WNW	54	W	6	5	3	23	7.6	60
KALISPELL	2965	918.7		25	9	17.0	- 0.3	46	28	-26	21	0	29			0.97	-0.40	0.32	13	0	15.1	16	7.3					3	5	23	8.3	
MILES CITY	2629			27	7	16.7	0.2	55	3	-25	21+	0	29	8	69	0.35	-0.09	0.11	7	0	5.9	4	11.7	W	46*	NNW	6	2	14	15	7.2	
MISSOULA	3190	909.2	1030.2	24	7	15.2	- 4.0	45	26	-23	22	0	30	9	75	1.21	0.29	0.85	12	0	9.0	5	6.4	ESE	34	E	8	4	5	22	7.9	42
NEBRASKA																																
GRAND ISLAND	1841	953.3		31	9	20.0	- 4.1	62	31	-15	20	0	30	10	67	0.13	-0.50	0.07	3	0	1.4	1	12.3	NNW				9	9	13	5.7	
LINCOLN U	1150			30	11	20.5	- 4.6	51	29	-12	20	0	30			0.52	-0.40	0.28	9	0	3.3	3	9.7	SW#	38	SE	13	8	9	14	6.1	66
NORFOLK	1544	963.7		28	5	16.6	- 2.8	57	31	-26	20	0	31			0.30	-0.48	0.16	5	0	3.5	5						9	7	15	5.9	
NORTH PLATTE	2779	918.6	1022.5	37	7	21.9	- 2.1	69	31	-15	19	0	31	7	59	0.07	-0.36	0.03	6	0	1.7	1	12.3	NNW	52	NW	6+	9	10	12	5.6	63
OMAHA	978	980.7	1023.2	28	9	18.2	- 4.1	48	3	-15	20	0	30	11	73	0.41	-0.41	0.20	8	0	5.0	5	12.0	NW	46	N	5	5	11	15	6.5	64
OMAHA N OMAHA AP	1323	971.9		25	7	16.2	- 4.1	44	29	-14	20	0	31			0.36	-0.55	0.15	7	0	4.5	6						5	12	14	6.4	
SCOTTSBLUFF	3950	881.2	1024.1	35	7	21.0	- 3.8	63	31	-24	19	0	31	8	61	0.37	0.08	0.14	5	0	4.7	2	14.4	WNW	46*	NW	6	9	7	15	5.9	
VALENTINE	2587	927.2		32	5	18.4	- 1.6	65	31	-24	20	0	31	11	75	0.03	-0.37	0.02	2	0	0.7	1	12.0	N#	56	N	6	9	5	17	6.1	72
NEVADA																																
ELKO	5075	850.7	1029.0	32	6	18.9	- 3.7	49	8	-24	23	0	28	12	74	0.81	-0.35	0.41	5	0	12.7	9	6.2	SW	29*	W	20	9	8	14	5.6	
ELY	6257	812.1	1026.6	36	4	20.4	- 2.4	52	3	-23	23	0	31	8	65	0.81	0.03	0.74	5	0	13.9	13	8.7	S	36	S	19	11	7	13	5.8	72
LAS VEGAS	2162	955.0	1022.0	57	32	44.3	0.7	75	7	17	12+	0	16	17	37	0.10	-0.43	0.10	1	0	T	0	8.9	WSW	35*	SW	20	17	5	9	3.7	84
RENO	4404	868.9	1028.4	42	11	26.7	- 5.2	64	3	-10	23	0	29	15	69	0.35	-0.84	0.21	3	0	3.5	2	4.8	SW	40	NW	20	13	7	11	4.9	70
WINNEMUCCA	4299	875.0		38	5	21.2	- 6.0	61	8	-22	23	0	31	14	74	0.76	-0.29	0.36	5	0	12.0	10	5.3	NE	38	S	20+	12	6	13	5.4	65
NEW HAMPSHIRE																																
CONCORD	339	1007.1	1018.6	32	9	20.6	- 0.6	51	15	- 9	18	0	31	12	35	2.66	-0.57	0.83	8	0	6.7	12	6.0	NW	30	SW	16	10	8	13	5.5	62
MT WASHINGTON OBS	6262	793.5		12	- 8	2.3	- 4.0	33	7+	-34	31	0	31		83	3.91	-1.53	1.14	19	0	22.9	10	52.4	W	133Y	W	27	5	7	19	7.4	36
NEW JERSEY																																
ATLANTIC CITY	58	1018.4	1021.2	42	24	33.2	- 1.6	58	6	7	11	0	24	23	67	4.21	0.65	2.62	11	0	7.1	6	13.0	WNW	35*	NW	23	9	4	18	6.6	43
ATLANTIC CITY U	10			41	30	35.2	- 0.6	53	6	18	31+	0	22			4.83	1.05	3.40	13				13.2		41*	NW	23					
NEWARK	11	1019.4	1020.6	38	23	30.8	- 1.5	56	15	9	31	0	27	19	54	2.56	-0.77	1.78	11	0	1.0	T	10.8	SW	32*	SW	15	8	7	16	6.4	

See footnotes at end of table

CLIMATOLOGICAL DATA

ENGLISH UNITS

State and Station	Elevation (ground)	Pressure		Temperature								No. of days			Average relative humidity	Precipitation			No. of days		Snow, Sleet		Wind		Fastest mile			No. of days (sunrise to sunset)			Sky cover, tenths (sunrise to sunset)	Possible sunshine
		Station Ø	Sea level	Average maximum	Average minimum	Average	Departure from normal	Highest	Date	Lowest	Date	Max. 90 F. or above	Min. 32 F. or below	Average dew point		Total	Departure from normal	Greatest in 24 hours	.01 inch or more	With thunderstorms	Total	Maximum depth on ground	Average speed	Prevailing direction	Speed	Direction	Date	Clear, 0-3	Partly cloudy, 4-7	Cloudy, 8-10		
NEW JERSEY	Ft.	Mb.	Mb.	F.	F.	F.	F.	F.		F.				F.	%	In.	In.	In.			In	In.	M.p.h		M.p.h.							%
TRENTON U	56	1012.9		39	24	31.6	- 1.5	59	15	10	31	0	27			2.49	-0.61	1.75	11	1	0.5	T	9.9	NW#	38	NW	30	10	6	15	6.4	55
NEW MEXICO																																
ALBUQUERQUE	5310	850.7	1021.6	43	20	31.6	- 3.4	57	20	- 6	11	0	30	17	60	1.01	0.60	0.87	6	0	4.0	2	7.4	N	43	E	10	11	7	13	5.3	74
CLAYTON	4969	845.6		43	15	29.1	- 4.1	67	31	-12	10	0	30			0.45	0.10	0.30	6	0	3.0	2						11	8	12	4.9	
RATON	6379	804.6		43	8	25.6	- 3.4	61	31	-24	11	0	31			0.36	0.00	0.22	6	0	3.8	2						13	8	10	4.8	
ROSWELL	3612	896.0		50	17	33.7	- 2.7	72	21	-24	11	0	29	20	64	0.38	-0.10	0.23	5	1	1.2	1	8.4		49	W	6	10	8	13	5.4	
SILVER CITY	5373	835.4		49	23	35.9		63	31	- 9	11	0	27			1.57		0.85	8	0	5.3	4						16	5	10	4.1	
NEW YORK																																
ALBANY	277	1015.4	1019.3	31	13	21.9	- 0.8	51	15	- 4	31	0	30	14	55	2.05	-0.42	0.89	8	0	2.3	6	9.7	S	38	W	15	6	9	16	6.7	49
BINGHAMTON	1590	956.2	1018.1	28	12	19.8	- 3.0	47	15	- 6	31	0	31	14	56	2.43	-0.07	0.87	13	1	7.6	5	11.4	WSW	47	SW	15	4	8	19	7.6	36
BUFFALO	706	955.8	1018.7	30	15	22.6	- 0.9	46	26	3	19	0	31	14	56	2.78	-0.06	0.53	21	0	26.2	23	16.0	WSW	50	SW	7	0	9	22	8.6	25
NEW YORK U	132	1007.6		40	26	32.6	- 0.1	56	15	11	31	0	24	55	17	2.62	-0.95	1.77	12	0	0.6	1	10.6	SW#	36	NW	30	9	11	11	5.5	55
NEW YORK	19	1018.6	1020.5	39	26	32.2	- 1.4	54	15+	10	31	0	23	20	61	2.59	-0.72	1.83	10	0	0.4	T	16.5	WNW	43	NW	30	9	5	17	6.4	
ROCHESTER	543	998.5	1018.9	31	15	22.9	- 2.3	48	24	0	31	0	31	15	73	1.84	-0.56	0.39	13	0	11.7	7	15.5	WSW	45	W	30+	2	9	20	7.8	43
SCHENECTADY	217			32	14	22.9	1.4	50	15	- 2	31	0	30			2.14	-0.28	1.28	8	0	1.8	6						15	8	8	4.6	
SYRACUSE	424	995.7	1018.9	33	15	24.1	0.1	50	7	- 4	31	0	29	14	56	2.87	-0.28	0.82	19	0	13.6	6	13.2	WSW	47	W	30	5	10	16	7.1	61
NORTH CAROLINA																																
ASHEVILLE U	2203	939.6		46	28	37.4	- 2.3	72	26	3	11	0	22			4.46	1.29	0.87	14	0	13.3	6	8.4	NW#	29	NW	30+	10	5	16	6.0	52
CAPE HATTERAS R	7	1020.2	1020.9	54	38	46.1	- 0.5	70	26	24	31	0	11	41	83	6.96	3.06	1.91	13	1	3.5	3	12.7	N	38	SW	7	8	5	18	6.7	
CHARLOTTE	735	992.5	1021.8	48	30	39.4	- 4.0	72	26	12	13+	0	19	30	69	7.44	3.91	3.57	11	1	11.7	4	7.2	SW	34	W	15	6	3	22	7.5	36
GREENSBORO	891	988.6	1021.8	45	26	35.8	- 3.9	71	26	4	11	0	22	28	76	5.77	2.37	2.47	12	0	14.4	4	8.3	SW	35	W	15	5	7	19	7.4	36
RALEIGH	433	1007.2	1021.6	49	29	38.8	- 2.8	73	26	5	11	0	21	39	76	6.56	3.34	2.71	10	1	10.1	5	8.2	SSW	35*	N	30	5	6	20	7.6	42
WILMINGTON	30	1019.3	1022.1	55	35	45.2	- 2.7	77	25	16	11	0	14	39	81	5.98	3.13	1.76	12	1	1.0	1	10.7	N	34	SW	6	8	6	17	6.7	50
WINSTON SALEM	967	985.2	1021.8	45	28	36.5	- 4.2	67	26	4	11	0	21	26	65	5.52	1.84	1.59	12	0	18.9	7	9.5	NE	46*	SW	15+	5	8	18	7.3	
NORTH DAKOTA																																
BISMARCK	1647	958.0	1022.3	22	0	10.7	1.8	49	3	-27	17	0	31	3	71	0.54	0.10	0.24	8	0	6.0	5	11.9	WNW	50	N	6	5	7	19	7.1	56
DEVILS LAKE U	1471	963.9		13	- 7	3.1	- 1.5	37	3+	-31	17	0	31			0.95	0.42	0.26	15	0	10.9	13	9.5	W#	33	N	6	7	6	18	7.3	52
FARGO	900	984.7	1021.9	14	- 6	4.4	- 2.4	40	2	-31	17	0	31	- 3	68	1.07	0.54	0.32	14	0	10.9	8	12.2	NNW	36	N	9+	6	8	17	6.9	41
WILLISTON U	1899	950.7		21	0	10.7	0.9	45	3+	-27	17	0	30			0.47	-0.08	0.18	8	0	4.7	3	9.7	W#	38	W	24+	5	9	17	7.4	36
OHIO																																
AKRON	1209	981.0	1021.0	32	16	23.9	- 3.4	56	26	- 9	10	0	30	19	60	2.57	-0.29	0.76	13	0	8.9	3	15.9	SW	40Y	SW	30+	6	4	21	7.4	
CINCINNATI OBS	761			37	20	28.6	- 5.1	66	26	- 8	10	0	28			3.90	0.23	1.80	11	1	4.4	2	7.5		24	S	6					46
CINCINNATI U	553	997.6		39	22	30.6	- 4.0	67	26	- 7	10	0	27			3.34	-0.10	1.58	10		2.8											
CLEVELAND	777	990.7	1020.0	32	16	23.9	- 3.7	55	26	- 8	10	0	30	18	59	2.83	0.16	0.89	14	0	6.0	3	13.7	SW	37	SW	7	4	7	20	7.7	48
COLUMBUS	812	990.1	1021.7	32	17	24.6	- 6.3	59	26	- 9	10	0	30	19	57	3.17	0.01	0.79	11	0	3.9	2	10.1	SSW	45	SW	7	7	5	19	7.2	40
COLUMBUS U	724			34	19	26.7	- 5.1	62	26	- 8	10	0	28			2.57	-0.33	0.58	10	0	3.1	2										
DAYTON	1002	982.8	1021.0	33	17	25.2	- 4.4	58	26	-11	10	0	28	20	63	2.90	-0.28	1.15	11	0	4.7	4	12.0	SSW	39*	SW	7	6	7	18	7.0	45
MANSFIELD	1296			31	16	23.4	- 3.9	57	26	-12	10	0	27			2.93	-0.29	0.87	11	0	5.4	4						6	7	18	7.2	
SANDUSKY U	603	996.5		32	17	24.6	- 4.7	52	26	- 8	10	0	30			3.22	0.83	0.95	14	0	7.1	2	11.2		46	SW	7	7	11	13	6.3	59
TOLEDO	676	993.9	1020.4	29	14	21.8	- 4.5	49	26	- 8	10	0	31	17	62	2.46	0.13	0.72	15	0	6.9	2	11.8	WSW	31	SW	7	6	7	18	6.9	51
YOUNGSTOWN	1178	975.5	1020.2	30	14	22.3	- 5.4	54	26	- 9	10	0	29	17	59	2.41	-0.75	0.60	16	1	9.9	4	11.9	SW	35*	SW	7	5	7	19	7.5	
OKLAHOMA																																
OKLAHOMA CITY	1280	978.4	1023.8	43	22	32.3	- 4.2	70	31+	- 1	11	0	24	22	70	1.45	0.14	1.00	9	0	8.5	6	13.7	N	36	NW	18+	11	7	13	5.6	59
TULSA	650	997.7	1023.5	41	19	30.2	- 7.0	68	31+	0	11+	0	28	21	72	1.33	-0.38	0.50	8	1	2.7	1	11.3	N	36	NW	5	10	4	17	6.0	49
OREGON																																
ASTORIA	8	1025.1	1025.8	47	33	40.1	- 0.6	63	30	14	21	0	14	35	84	6.53	-5.18	1.65	17	0	T	0	9.9	ESE	35*	SSW	14	4	5	22	7.8	
BURNS U	4151	879.1		32	10	21.0	- 3.8	55	8	-26	21	0	29	14	74	0.77	-0.85	0.42	6	0	11.2	9						7	5	19	7.2	
EUGENE	361	1012.5		46	29	37.5	- 1.6	62	6	6	22	0	20			1.39	-4.94	0.38	9	0	2.0	2	7.7		37*	SW	3	5	9	17	7.2	
MEACHAM	4050			31	18	24.6	- 1.4	47	31+	-12	21	0	28			3.06	-1.14	1.02	16	0	20.5	11						4	6	21	7.8	
MEDFORD	1298	978.3	1027.9	39	24	31.5	- 5.4	58	10	0	22	0	27	27	85	1.69	-1.45	0.86	9	0	8.8	7	2.8	N	23*	SW	3	2	7	22	8.2	
PENDLETON	1482	971.6	1027.2	40	25	32.3	0.6	59	7	-10	21	0	19	25	76	0.70	-0.72	0.30	6	0	8.2	6	8.7	SSE	49*	W	3	3	6	22	8.2	
PORTLAND	21	1021.0	1026.7	45	32	38.6	0.2	59	30	9	21	0	15	30	74	1.58	-3.79	0.51	13	0	0.7	T	7.9	ESE	38	E	10	5	6	20	7.8	30
PORTLAND U	30			46	34	39.7	- 0.5	60	31	16	21	0	8			1.58	-4.76	0.57	12		0.9	T										

See footnotes at end of table

CLIMATOLOGICAL DATA

ENGLISH UNITS

State and Station	Elevation (ground)	Pressure		Temperature											Average relative humidity	Precipitation							Wind					No of days (sunrise to sunset)			Sky cover, tenths (sunrise to sunset)	Possible sunshine
												No. of days							No of days		Snow, Sleet				Fastest mile							
		Station Ø	Sea level	Average maximum	Average minimum	Average	Departure from normal	Highest	Date	Lowest	Date	Max. 90 F. or above	Min. 32 F. or below	Average dew point		Total	Departure from normal	Greatest in 24 hours	01 inch or more	With thunderstorms	Total	Maximum depth on ground	Average speed	Prevailing direction	Speed	Direction	Date	Clear, 0-3	Partly cloudy, 4-7	Cloudy, 8-10		
OREGON	Ft.	Mb.	Mb.	F.	F.	°F.	F.	F.		F.				F.	%	In.	In.	In			In	In.	M.p.h		M.p h							%
ROSEBURG	505	1007.5		46	28	37.1	- 3.2	62	7	- 1	22	0	22			1.36	-4.15	0.61	13	0	7.5	8	2.9	S#	19	SW	3	2	11	18	7.7	37
SALEM	195	1019.3	1026.6	45	30	37.1	- 1.9	60	7	8	22	0	19	29	73	1.11	-5.59	0.28	10	0	2.5	2	7.8	S	28*	S	14	3	5	23	8.0	
SEXTON SUMMIT R	3836	889.3		43	31	36.9	3.3	62	31	- 2	21	0	16			1.81	-3.78	0.91	11	0	14.8	12	9.9	ESE				11	5	15	5.6	
PACIFIC AREA																																
CANTON ISLAND	8	1007.9	1008.3	89	78	83.7	0.6	90	31+	76	16+	5	0	72	71	0.11	-2.50	0.08	4	0	0.0	0	14.6	E	23*	ENE	29+	19	12	0	3.4	
ENIWETOK	13	1008.8		86	79	82.6	1.4	88	31+	76	26	0	0	72	71	0.37	-0.65	0.08	10	0	0.0	0	18.4									
JOHNSTON	7	1010.2	1010.7	82	71	76.4	- 0.6	86	18	65	23	0	0	69	76	1.95	-1.94	1.01	9	0	0.0	0	13.0	E	30	E	8	15	13	3	4.0	91
KOROR R	94	1005.4	1007.9	85	75	80.2	- 0.1	89	5	73	31+	0	0	75	86	16.78	5.05	3.93	25	2	0.0	0	7.9	NE	26	NE	15	0	0	31	9.9	41
KWAJALEIN	8	1007.1	1008.0	86	77	81.3	1.2	87	25+	74	19+	0	0	73	77	3.50	-0.11	1.48	18	0	0.0	0	19.7	ENE	30*	E	9+	7	12	12	6.3	
MAJURO	10	1008.5	1009.5	85	77	80.9	0.7	87	13+	74	16	0	0	75	81	17.55	10.57	4.83	27	1	0.0	0	13.5	ENE	34	NE	23	0	6	25	8.8	65
PONAPE R	123	1003.1	1007.5	85	75	80.1	- 0.3	88	27	73	29+	0	0	74	84	26.67	15.60	4.70	26	4	0.0	0	8.1	NE	26	E	22	0	4	27	9.4	40
TAGUAC GUAM R	361			85	70	77.3	- 0.8	87	27+	60	20+	0	0			2.24	-2.39	1.86	9	0	0.0	0	7.2	E#	31	E	8					67
TRUK MOEN ISLAND	5	1007.2	1007.5	85	78	81.3	0.6	88	2+	74	4	0	0	75	81	7.91	-0.49	3.47	24	1	0.0	0	8.1	NNE	18	NE	18	0	6	25	8.9	55
WAKE ISLAND	11	1012.4	1012.8	82	73	77.5	0.1	87	4	67	16	0	0	67	73	0.49	-0.65	0.22	6	0	0.0	0	11.1	E	29*	NE	12	11	15	5	4.7	
YAP R	55	1007.1	1008.0	86	76	80.7	0.3	89	3+	72	29+	0	0	75	84	8.53	0.66	2.45	20	0	0.0	0	11.7	NE	33	NE	25	0	0	31	9.9	68
PENNSYLVANIA																																
ALLENTOWN	376	1005.7	1020.7	35	18	26.4	- 2.6	57	15	5	12	0	30	18	64	2.90	-0.27	1.78	12	0	0.9	4	11.0	WSW	42*	W	30	8	4	19	6.8	
ERIE	732	990.2	1019.3	32	16	23.9	- 3.4	53	26	- 2	10	0	31	17	69	3.30	0.63	0.79	18	1	9.5	4	15.5	SW	39*	SW	7	2	7	22	8.0	
HARRISBURG	335	1006.4	1020.9	37	19	28.0	- 3.8	55	25	5	12	0	29	18	58	2.15	-0.61	1.18	9	0	2.3	5	7.8	W	32	NW	30	5	7	19	7.0	41
PHILADELPHIA	5	1016.0	1020.7	38	22	30.0	- 2.3	57	15+	9	31+	0	28	20	64	2.95	-0.37	2.08	11	0	1.1	T	9.6	WSW	33	SW	30	6	8	17	6.7	53
PHILADELPHIA U	35			41	27	34.1	- 0.8	60	15	12	31+	0	24																			
PITTSBURGH	1151	989.3	1020.9	35	18	26.2	- 2.7	60	26	- 3	10	0	28	19	56	2.33	-0.64	0.87	13	0	4.0	2	11.1	WSW	32*	SW	7	6	2	23	7.5	44
PITTSBURGH U	749			37	21	29.3	- 4.0	63	26	- 1	10	0	27			2.62	-0.20	0.89	11		3.8											26
READING U	266	1008.0	1020.6	38	23	30.3	- 2.4	57	15+	9	11	0	28			2.79	-0.28	1.71	11	0	0.9	3	10.8		47	NW	30	9	3	19	6.6	45
SCRANTON	940	984.4	1020.3	34	16	24.9	- 1.8	55	15	2	31	0	28	15	50	2.67	0.38	1.33	10	1	2.7	5	9.7	SW	40	SW	15	8	5	18	6.8	44
WILLIAMSPORT	527	1001.0	1020.9	35	17	26.1	- 2.7	53	7	2	12	0	29	15	55	3.10	0.43	0.92	14	1	6.1	4	8.9	W	31*	NW	30	8	3	20	6.9	
RHODE ISLAND																																
BLOCK ISLAND	110	1014.5	1019.0	38	24	30.9	- 1.7	57	7+	8	31	0	25			5.07	1.23	4.06	11	0	3.8	3						7	11	13	6.5	
PROVIDENCE	55	1012.9	1019.4	37	20	28.5	- 0.7	55	15	6	31	0	28	17	47	4.70	0.89	3.34	10	0	4.9	6	12.1	N	38*	SSW	30	9	9	13	5.8	59
SOUTH CAROLINA																																
CHARLESTON	41	1020.0	1022.2	58	36	47.1	- 3.2	78	27+	16	13	0	14	37	73	3.59	1.05	1.05	11	1	T	T	9.1	NNE	51Y	S	6	8	5	18	6.7	50
CHARLESTON U	9			57	40	48.5	- 3.0	76	27+	24	12	0	5			2.74	0.34	1.10	11		T	T	10.4		33	SW	6					
COLUMBIA	217	1009.1	1022.5	56	34	44.8	- 2.1	76	26	13	13	0	14	35	74	6.49	3.47	2.23	10	1	T	T	7.1	SW	35*	W	15+	7	6	18	6.9	46
FLORENCE	146	1015.6	1021.6	55	34	44.6	- 2.9	78	26	16	13	0	15	34	72	3.68	1.04	1.11	12	0	0.3	T	8.7	N	35*	SW	6	9	4	18	6.6	
GREENVILLE	1009	982.8	1021.5	50	33	41.3	- 3.1	70	26	15	13	0	14	32	74	4.65	0.36	1.49	13	0	8.7	5	8.8	WSW	34	W	15	6	5	20	7.3	34
SPARTANBURG	801	990.8	1021.8	49	32	40.4	- 3.2	68	26+	14	11	0	19	32	77	5.22	0.95	1.48	13	1	9.9	7	8.4	SW	46*	NW	15	6	4	21	7.3	
SOUTH DAKOTA																																
HURON	1282	972.9	1023.2	23	- 1	11.0	- 2.5	59	3	-25	20	0	31	5	77	0.22	-0.26	0.09	7	0	3.7	3	13.1	NNW	48	NW	8	8	5	18	6.7	53
RAPID CITY	3165	903.3	1023.0	31	8	19.3	- 2.7	61	31	-18	22+	0	29	9	65	0.51	0.15	0.15	7	0	4.9	3	11.8	NNW	50	NW	6	8	6	17	6.3	59
SIOUX FALLS	1420	967.0	1022.1	23	2	12.8	- 2.4	47	3	-22	20	0	31	2	61	0.29	-0.33	0.15	8	0	3.8	5	11.1	NW	31*	NW	9	8	7	16	6.4	
TENNESSEE																																
BRISTOL	1507	965.1	1021.5	45	27	35.5	- 2.8	67	26	- 4	11	0	25	27	69	5.15	1.46	1.52	17	0	10.8	5	7.6	SW	35*	SW	15	9	1	21	7.1	
CHATTANOOGA	670	994.1	1022.7	47	30	38.5	- 3.2	71	26	4	10	0	19	31	68	7.79	2.18	1.57	16	1	5.2	3	8.3	SSW	37	W	15	7	3	21	7.2	41
KNOXVILLE	950	985.7	1022.4	46	28	37.0	- 3.9	70	26	1	11+	0	19	28	68	6.22	1.34	1.51	15	0	15.1	9	9.6	WSW	53	SW	6	8	1	22	7.3	38
MEMPHIS	263	1007.8	1023.1	45	27	36.2	- 5.8	66	26	- 4	12	0	22	29	68	4.19	-1.88	1.68	12	2	5.0	4	8.6	N	36	SE	14	7	7	17	6.6	48
MEMPHIS U	271			45	29	36.8	- 5.3	66	26	- 1	10	0	20			5.95	0.14	3.64	13		4.5	4										
NASHVILLE	577	1001.7	1022.5	45	26	35.3	- 4.6	73	26	- 2	11+	0	25	29	68	6.51	1.02	2.04	14	1	2.2	2	8.7	S	36	SW	15	8	3	20	7.0	43
OAK RIDGE	905	988.6		45	27	36.0	- 3.9	69	26	- 1	11	0	22			5.93	-0.01	1.16	15	0	8.7	7	4.6		40Y		6	8	1	22	7.3	
TEXAS																																
ABILENE	1759	959.2	1022.4	53	26	39.7	- 4.9	75	31	6	11	0	24	23	58	0.07	-0.81	0.03	3	1	0.4	T	10.8	S	35	N	5	11	6	14	5.6	64
AMARILLO	3607	891.2	1021.4	46	18	31.7	- 4.5	69	31	- 8	11	0	28	16	60	0.47	-0.18	0.24	6	0	2.3	2	15.1	N	45	N	4	10	8	13	5.6	71
AUSTIN	597	1000.5	1023.4	57	34	45.5	- 4.9	78	31	13	12+	0	13	30	63	0.56	-1.79	0.29	9	1	T	T	9.6	N	47	N	5	9	7	15	6.3	46
BROWNSVILLE	16	1019.3	1022.1	67	45	55.9	- 5.5	79	4	19	12	0	4	47	76	0.60	-0.75	0.30	6	0	0.0	0	11.7	NNW	36	N	10	9	5	17	6.3	48

See footnotes at end of table

CLIMATOLOGICAL DATA

ENGLISH UNITS

State and Station	Elevation (ground)	Pressure		Temperature											Average relative humidity	Precipitation							Wind						No. of days (sunrise to sunset)			Sky cover, tenths (sunrise to sunset)	Possible sunshine
												No. of days							No. of days		Snow, Sleet				Fastest mile							
		Station Ø	Sea level	Average maximum	Average minimum	Average	Departure from normal	Highest	Date	Lowest	Date	Max. 90 F. or above	Min. 32° F. or below	Average dew point		Total	Departure from normal	Greatest in 24 hours	.01 inch or more	With thunderstorms	Total	Maximum depth on ground	Average speed	Prevailing direction	Speed	Direction	Date	Clear, 0-3	Partly cloudy, 4-7	Cloudy, 8-10		
TEXAS	Ft.	Mb.	Mb.	F	F	F.	F.	F.		F.				F.	%	In.	In.	In.			In.	In.	M.p.h.		M.p.h.							%
CORPUS CHRISTI	43	1021.3	1022.8	63	38	50.5	- 6.9	81	14	14	12	0	6	38	67	0.22	-1.41	0.07	9	0	0.0	0	12.8	N	38	N	5	7	5	19	6.8	52
DALLAS	481	1004.1	1023.8	52	29	40.5	- 5.4	74	30	8	11+	0	21	27	66	1.32	-1.00	0.35	9	1	3.2	2	11.3	S	42	N	5	8	12	11	5.8	56
DEL RIO U	957			58	35	46.8	- 5.1	79	4	13	12	0	10			0.15	-0.68	0.06	5	1	T	0										
EL PASO	3918	889.3	1020.7	54	27	40.5	- 3.4	68	8	- 8	11	0	21	22	54	0.94	0.48	0.50	6	0	1.6	1	6.9	NNE	52	N	4	14	10	7	4.2	80
FORT WORTH	544	1001.7	1023.4	52	28	39.6	- 5.9	74	31+	7	11	0	22	28	68	1.00	-1.04	0.25	10	0	2.6	2	13.3	S	43*	N	9	10	9	12	5.7	
GALVESTON U	7			57	43	49.9	- 5.0	70	31	18	11+	0	4			1.24	-2.22	0.43	11		0.0	0	13.8		35	NW	5					52
GALVESTON	5	1020.5	1023.0	56	42	49.0	- 5.4	68	4	17	11	0	4	40	74	0.87	-2.89	0.31	9	0	0.0	0	11.8	N				10	3	18	6.5	
HOUSTON U	41			61	42	51.5	- 3.1	80	31	20	11+	0	4			1.04	-2.68	0.66	10		T	0										
HOUSTON	50	1020.3	1023.6	61	38	49.3	- 5.3	80	25	17	12+	0	7	40	73	1.73	-2.05	0.72	11	1	0.0	0	12.4	NNW				9	3	19	6.8	45
LAREDO	500	1006.8	1022.6	63	39	51.2	- 6.5	82	4	18	12	0	6	33	57	0.33	-0.80	0.13	6	0	0.0	0	9.6	NNW	36*	NW	5	9	9	13	5.7	
LUBBOCK	3243	907.1	1022.6	49	20	34.4	- 4.8	69	31+	- 4	11	0	29	20	63	0.26	-0.42	0.19	6	0	0.3	T	14.1	N	46*	N	5	11	10	10	5.4	
MIDLAND	2854	919.4	1021.1	53	25	39.1	- 4.9	71	30+	- 8	11	0	22	22	58	0.17	-0.63	0.12	3	0	1.6	2	10.6	S	31*	NW	4	10	9	12	5.5	
PORT ARTHUR	16	1020.8	1022.5	59	36	47.3	- 5.8	77	31	14	12	0	11	40	77	2.10	-2.13	0.51	9	1	T	T	10.7	N	49	NW	14	11	2	18	6.5	46
SAN ANGELO	1903	953.2	1022.5	56	27	41.5	- 5.4	76	31	8	11	0	25	23	55	0.02	-0.95	0.01	2	0	T	T	9.8	S	28*	NE	9+	13	9	9	4.9	
SAN ANTONIO	792	996.9	1022.8	58	33	45.9	- 6.1	76	31+	10	12	0	12	32	63	0.48	-1.26	0.18	9	0	0.0	0	9.7	N	37	N	9	11	6	14	6.0	48
VICTORIA	104	1018.2		61	36	48.6	- 6.8	77	4	16	12	0	9			0.46	-1.88	0.13	8	0	0.0	0	12.6		54Y	N	9	8	9	14	6.4	
WACO	500	1001.5	1023.5	56	31	43.0	- 5.0	79	30	13	11+	0	19	30	68	0.65	-1.62	0.25	10	1	T	T	14.1	NNW	46*	NNW	14+	12	6	13	5.7	
WICHITA FALLS	994	984.7	1023.1	50	23	36.5	- 5.3	74	30	- 1	11	0	24	23	63	0.27	-0.85	0.12	5	0	1.2	1	10.5	S	36*	N	5	12	4	15	5.4	
UTAH																																
MILFORD	5028	848.6		34	5	19.3	- 5.3	59	8	-22	24	0	31			0.39	-0.18	0.25	5	0	7.9	6						10	11	10	5.0	
SALT LAKE CITY	4220	874.4	1029.6	29	12	20.5	- 7.7	50	7	-14	23	0	30	16	83	0.84	-0.51	0.56	7	1	15.6	9	7.0	N	49	S	20	6	6	19	7.1	43
WENDOVER	4237	877.4		32	16	24.0	- 3.0	59	7+	- 3	23	0	29			0.29	-0.03	0.23	4	0	2.8	2						9	3	19	6.5	
VERMONT																																
BURLINGTON	331	1002.7		27	4	15.5	- 2.7	45	15	-11	31+	0	31			1.07	-0.88	0.44	10	0	6.9	14	10.2		47	S	16	8	4	19	6.9	59
VIRGINIA																																
LYNCHBURG	947	995.7		43	26	34.3	- 3.3	64	25	5	11	0	22			3.50	0.21	1.09	12	0	17.3	7	8.5		30	W	15+	5	12	14	6.8	38
NORFOLK	26	1019.7	1021.7	48	30	38.9	- 2.3	67	6	12	13	0	20	32	76	5.56	2.23	1.44	14	0	11.9	6	12.2	SW	43	NE	1	8	3	20	7.0	45
RICHMOND	162	1015.5	1022.1	47	27	36.6	- 2.1	70	25	4	11	0	21	28	74	5.95	2.49	3.31	11	1	20.6	7	7.8	SW	30	SW	15	6	5	20	7.3	37
ROANOKE	1174	977.6	1021.6	44	27	35.7	- 2.4	66	25	2	11	0	23	23	59	2.54	-0.58	0.98	12	0	8.3	3	9.4	SW	34*	SW	3	9	7	15	6.5	
WASHINGTON																																
OLYMPIA	190	1018.6	1026.0	44	29	36.5	- 1.6	60	31	4	21	0	23	31	83	3.22	-4.63	1.20	14	0	2.1	2	7.6	SW	29*	SW	3	2	7	22	8.2	
SEATTLE TACOMA	400	1010.5	1025.0	44	33	38.4	0.1	57	31	13	21	0	15	31	78	2.43	-3.30	1.44	12	0	1.0	T	9.9	SSW	35*	SSW	14	4	4	23	7.8	
SEATTLE			1025.3											32	77								5.7	SSE								
SEATTLE U	14			46	37	41.5	0.3	54	28+	20	21	0	6			2.50	-2.69	1.17	12		T	0			44	SW	3					28
SPOKANE	2357	955.6	1027.2	29	16	22.6	- 2.7	47	29+	-13	21+	0	26	16	73	1.39	-1.05	0.47	11	0	12.2	8	8.2	NNE	30	SW	25	3	6	22	8.1	39
STAMPEDE PASS R	3958	883.8		32	22	26.6	3.1	56	31	- 2	19	0	24			12.69	0.66	2.77	17	0	37.0	75						3	3	25	8.2	
TATOOSH ISLAND	101	1021.3	1024.4	45	39	41.8	- 0.2	53	1	25	19	0	4	37	83	7.11	-3.71	1.54	17	0	T	0	18.4	ENE	52	S	26	4	3	24	7.9	30
WALLA WALLA U	949	989.8		40	27	33.8	0.6	62	3	1	21	0	20			0.63	-1.26	0.28	8	0	2.5	2	4.9	E#	37	W	7	1	8	22	8.5	28
YAKIMA	1061	987.1	1027.7	40	20	29.9	2.4	61	7	1	22	0	27	21	74	0.16	-1.03	0.05	4	0	2.2	1	6.1	WNW	44*	SW	25	3	4	24	8.0	
WEST INDIES																																
SAN JUAN P.R. U	47			80	71	75.8	0.7	87	2	68	31	0	0			4.16	0.03	1.08	24													
SAN JUAN P.R.	15	1015.6	1018.7	82	69	75.2	0.8	87	3+	61	31	0	0	68	81	4.24	-0.46	1.26	24	0	0.0	0	7.7	ENE	34	E	22	4	24	3	5.1	62
SWAN ISLAND	28	1015.4		83	74	78.8	0.5	86	15+	70	27	0	0			3.87	0.43	1.14	13	0	0.0	0						1	22	8	6.1	
WEST VIRGINIA																																
CHARLESTON	939	984.9	1021.8	43	24	33.6	- 4.0	73	26	- 9	11	0	22	23	53	2.81	-1.51	0.95	13	1	3.9	2	7.4	WSW	35*	SW	15	5	7	19	7.6	
HUNTINGTON U	827	990.4	1021.7	43	24	33.4	- 4.2	74	26	- 5	11	0	24	23	58	2.62	-1.22	1.00	12	0	1.8	1	7.2	SW	29*	SW	15	6	6	19	7.6	
PARKERSBURG U	621			40	21	30.4	- 4.2	70	26	- 6	11	0	25			2.62	-0.72	0.90	10	1	5.6	3	6.8		40	W	26					35
WISCONSIN																																
GREEN BAY	682	995.0	1019.1	20	3	11.4	- 4.9	40	26	-23	18	0	31	3	70	1.27	0.12	0.39	12	0	15.8	15	11.1	SW	33	W	29	6	5	20	7.1	35
LA CROSSE	652	994.5		21	5	12.8	- 3.7	43	3	-16	18	0	31	4	67	0.19	-1.00	0.10	5	0	2.9	5	12.1	S	45*	NW	29	4	9	18	7.4	
MADISON	858	982.7	1019.8	20	5	12.4	- 5.6	40	3	-18	18	0	31	5	73	1.12	-0.28	0.52	13	0	10.0	11	10.3	WNW	32	N	30	4	8	19	7.4	44
MILWAUKEE	670	993.9	1020.5	22	7	14.5	- 6.1	39	3	-12	18+	0	31	8	74	2.48	0.65	1.17	13	0	22.1	14	11.8	W	35	N	6	7	7	17	6.7	43

See footnotes at end of table

CLIMATOLOGICAL DATA

ENGLISH UNITS

State and Station		Pressure		Temperature												Precipitation							Wind					No of days (sunrise to sunset)				
												No of days							No. of days		Snow, Sleet				Fastest mile							
	Elevation (ground)	Station Ø	Sea level	Average maximum	Average minimum	Average	Departure from normal	Highest	Date	Lowest	Date	Max. 90 F. or above	Min. 32 F. or below	Average dew point	Average relative humidity	Total	Departure from normal	Greatest in 24 hours	.01 inch or more	With thunderstorms	Total	Maximum depth on ground	Average speed	Prevailing direction	Speed	Direction	Date	Clear, 0-3	Partly cloudy, 4-7	Cloudy, 8-10	Sky cover, tenths (sunrise to sunset)	Possible sunshine
WYOMING	Ft.	Mb.	Mb.	F.	F.	F.	F.	F.		F.				F.	%	In	In.	In.			In	In	M.p.h.		M p.h.							%
CASPER	5319	838.1	1024.4	25	5	15.4	- 8.0	48	31	-30	9	0	31	6	66	0.85	0.29	0.34	8	0	16.2	8	15.4	SW	35*	SSW	11	10	6	15	6.0	
CHEYENNE	6126	811.7	1022.7	32	6	19.0	- 6.9	56	3	-22	19	0	31	5	55	0.67	-.15	0.48	7	0	13.0	11	15.7	WNW	45	NW	6	12	8	11	5.3	64
LANDER	5563	837.1		20	- 3	8.6	-10.7	47	27	-32	22	0	31	- 3	61	1.34	0.88	0.74	5	0	26.5	21	4.6	SE#	27	SW	31	9	7	15	5.7	72
SHERIDAN	3942	887.6	1018.2	27	5	16.0	- 5.3	55	31	-24	19	0	31	8	68	0.72	0.08	0.38	10	0	9.6	7	7.5	NW	63	NW	6	6	11	14	6.4	62

Data from airport unless otherwise specified. U indicates Urban, R indicates Rural, sites.

* Data entered in column "Fastest Mile" is the fastest mile observed. This station is not equipped with automatic wind recording instrument.

Ø Station pressures apply to elevations shown in the "Elevations - Station Pressure" table of the annual issue of this publication.

V Sun below horizon January 1-24, inclusive.

X Sun below horizon January 1-16, inclusive.

A Maximum hourly average.

+ And also on an earlier date or dates.

B Number of days maximum 70°F. or above for Alaskan Stations.

# Wind direction to 8 compass points only.

Y Peak Gust.

CLIMATOLOGICAL DATA

METRIC UNITS

State and Station	Elevation (ground)	Pressure		Temperature								No. of days			Average relative humidity	Precipitation			No. of days		Snow, Sleet		Wind		Fastest mile (1.6 kilometers)			No. of days (sunrise to sunset)			Sky cover, tenths (sunrise to sunset)	Possible sunshine
		Station Ø	Sea level	Average maximum	Average minimum	Average	Departure from normal	Highest	Date	Lowest	Date	Max. 32.2 °C or above	Min. 0 C or lower	Average dew point		Total	Departure from normal	Greatest in 24 hours	25 mm. or more	With thunderstorms	Total	Maximum depth on ground	Average speed	Prevailing direction	Speed	Direction	Date	Clear, 0-3	Partly cloudy, 4-7	Cloudy, 8-10		
	M.	Mb.	Mb.	C.	C.	C.	C.	C.		C.				C.	%	Mm.	Mm.	Mm.			Mm.	Mm.	M.p.s.		M.p.s.							%
ALABAMA																																
BIRMINGHAM	186	996.9	1023.1	10.6	0.0	5.4	-2.1	20.6	26	-17.2	11	0	17	0.6	69	219	92	64	15	0	97	102	4.4	N	18.8	SE	15	10	3	18	6.6	41
HUNTSVILLE	184	998.6	1022.8	8.9	- 1.7	3.8	-2.3	21.1	26	-18.9	11	0	19	- 0.6	67	217	84	55	16	1	124	127	4.2	ESE	12.5*	ENE	27+	7	4	20	6.9	
MOBILE	64	1020.3		15.0	3.3	9.4	-2.0	25.6	23	-13.9	11	0	10			121	3	47	10	1	T	T	5.5		15.2*	NW	15+	11	6	14	5.7	
MONTGOMERY	59	1014.7	1023.1	13.3	3.3	8.2	-0.7	24.4	25	-11.7	11	0	10	2.8	73	132	29	56	10	1	25	25	3.8	NW	13.9	W	6	9	6	16	6.1	46
ALASKA																																
ANCHORAGE	27	1010.5	1016.0	- 6.1	-14.4	-10.3	0.6	6.1	1	-30.0	27	B 0	31	-15.0	72	22	2	7	9	0	307	229	2.5	N	13.4*	SE	30	5	5	21	7.6	31
ANNETTE	34	1013.9	1018.1	4.4	0.0	2.2	0.8	8.3	28	- 8.3	15	0	16	- 1.1	81	489	201	118	22	1	229	102	5.6	SSE	17.0*	SSE	1	4	3	24	8.3	
BARROW	7	1019.3	1019.9	-14.4	-23.9	-19.1	7.7	- 0.6	19+	-39.4	26	0	31	-22.2	75	26	22	14	9	0	302	559	7.2	W	21.9*	E	12	6	0	2		
BARTER ISLAND	12	1019.3	1021.2	-15.0	-25.0	-20.0	7.1	3.9	19	-46.1	27	0	31	- 3.3	72	104	93	57	8	0	889	838	9.5	W	25.9*	E	30	4	0	10		
BETHEL	38	1018.3	1019.8	-14.4	-22.2	-18.2	-2.4	3.3	12	-34.4	29+	0	31	-22.8	68	8	- 20	5	7	0	160	229	7.6	NNE	21.5*	SSW	12	17	3	11	4.5	
COLD BAY	29	1011.5	1015.9	- 2.2	- 7.8	- 5.2	-3.0	6.1	19	-20.6	29	0	27	- 8.3	79	64	5	23	11	0	79	127	8.3	N	26.8*	SSE	13	8	5	18	6.8	
CORDOVA	12	1011.9	1013.4	1.7	- 7.8	- 3.1	1.8	6.7	29+	-21.1	28+	0	28	- 6.7	78	175	20	38	17	0	805	178	3.0	ESE	10.3*	ESE	30	9	2	20	6.8	
FAIRBANKS	133	1004.1	1022.7	-16.1	-27.8	-22.1	1.8	2.8	22+	-46.7	27+	0	31	-25.0	74	18	- 5	5	12	0	226	533	1.7	N	10.3*	WSW	22	8	2	21	7.2	
JUNEAU	5	1016.6	1017.6	0.0	- 6.1	- 2.9	0.9	7.2	1	-18.9	26	0	24	- 6.7	77	178	76	28	18	0	800	483	4.2	ESE	14.3*	ESE	1	6	2	23	7.9	29
KING SALMON	13	1013.9	1016.0	- 8.9	-17.8	-13.2	-2.9	5.6	21	-33.3	3	0	31	-18.3	70	24	- 3	14	7	0	132	127	5.0	N	21.5*	E	8	12	3	16	5.6	
KOTZEBUE	3	1019.6	1020.3	-14.4	-22.8	-18.8	2.2	0.0	15	-40.0	27	0	31	-22.2	76	10	0	4	9	0	211	330	7.0	ESE	19.7*	SE	13	12	4	15	5.6	
MC GRATH	102	1008.5	1022.3	-17.2	-29.4	-23.2	-0.4	1.7	21	-46.7	26	0	31	-28.3	63	21	- 11	13	7	0	373	965	2.0	N	10.3*	SW	22+	9	6	16	6.0	
NOME	4	1019.0	1019.8	-11.7	-20.0	-15.9	-0.6	1.7	15	-34.4	27+	0	31	- 0.0	72	24	- 2	8	12	0	284	686	6.2	E	20.6*	NW	22+	10	6	15	5.9	25
ST. PAUL ISLAND	7	1016.6	1017.7	- 3.9	- 9.4	- 6.6	-2.9	2.8	14+	-20.6	31+	0	30	- 9.4	81	27	- 19	9	12	0	152	203	8.5	N	25.0*	SE	10	11	6	14	5.6	
SHEMYA	37	1005.1	1008.6	2.2	- 1.1	0.6	1.0	4.4	18+	- 4.4	13+	0	19	- 1.7	84	49	- 15	18	19	0	175	51	8.8	SE	25.9*	SSE	15	0	3	28	9.2	
YAKUTAT	9	1013.2	1014.4	0.6	- 6.1	- 2.9	-0.3	5.0	30+	-19.4	27	0	24	- 5.0	86	427	151	130	20	0	394	330	3.5	E	13.0*	ESE	29+	3	6	22	8.1	
ARIZONA																																
FLAGSTAFF	2131	790.7	1023.4	4.4	-10.0	- 2.7	-0.7	13.3	8	-23.9	15	0	30	- 9.4	65	67	21	38	7	0	782	483	4.1	NE	16.5*	NNE	10	14	3	14	5.0	
PHOENIX	338	979.7	1019.7	17.2	4.4	10.8	0.4	24.4	31+	- 5.6	12	0	5	- 1.7	48	30	12	19	8	0	T	T	2.5	E	12.5*	SSW	21	15	6	10	4.5	78
PRESCOTT	1528	849.3	1021.6	9.4	- 5.0	2.1	-0.7	18.3	8	-15.0	15	0	30	- 6.7	60	38	12	25	6	0	135	76	2.5	S	25.0	SW	20	15	5	11	4.5	77
TUCSON	788	928.5	1018.3	15.6	3.3	9.4	-0.2	22.8	31+	- 6.1	12+	0	7	- 2.2	52	35	14	13	7	1	0	0	4.6	ESE	17.9	E	10	16	7	8	4.1	84
WINSLOW	1487	854.7	1026.0	1.1	-10.6	- 4.7	-4.4	13.9	20	-20.0	3	0	31	- 7.8	81	21	10	13	5	1	211	127	3.1	ESE	17.9*	S	21+	9	5	17	6.6	
YUMA	61	1014.6	1019.9	21.1	6.7	13.8	0.2	28.9	8	- 2.2	12	0	1	- 3.9	36	12	2	12	2	0	0	0	3.7	N	14.3	N	10	18	11	2	2.8	91
ARKANSAS																																
FORT SMITH	137	1005.8	1023.6	7.2	- 5.0	1.2	-3.2	21.1	29	-19.4	12+	0	26	- 3.3	75	78	11	27	9	4	99	102	3.5	ENE	13.9	W	7	12	4	15	6.1	48
LITTLE ROCK	78	1010.0	1023.8	8.9	- 2.8	2.9	-1.9	22.2	30	-20.0	12	0	21	- 2.8	72	174	41	92	13	3	152	127	4.0	WSW	15.2	NW	5	8	7	16	6.4	44
TEXARKANA	110			10.6	- 1.1	4.7	-2.6	22.8	30	-17.8	10	0	15	0.6	79	158	35	53	11	0	191	178	3.8	WNW								
CALIFORNIA																																
BAKERSFIELD	151	1005.4	1024.1	11.1	0.6	5.9	-2.7	19.4	29+	- 5.0	24	0	16	1.7	81	15	- 15	11	6	0	T	0	2.8	WNW	13.9*	SE	10	9	8	14	5.9	
BISHOP	1252	879.1		12.8	- 5.6	3.5	0.8	22.8	7	-15.6	23	0	28			12	- 13	12	4	0	30	25						15	5	11	4.3	
BLUE CANYON	1609	842.5		10.0	1.1	5.5	3.2	21.7	31	-13.3	22	0	13			142	-155	99	5	0	960	914	4.8	ENE	21.9	ENE	22	17	6	8	3.9	
BURBANK	213	993.2	1019.6	20.6	6.7	13.4	1.4	30.6	7	1.1	22+	0	0	0.0	48	65	- 15	34	4	0	T	0	3.1	S	13.0*	NE	24	19	4	8	3.3	
EUREKA U	13	1022.7		11.1	3.9	7.3	-1.2	18.9	10	- 2.2	21	0	4			83	- 87	49	7	0	20	25	2.3	N#	12.1	SW	19	10	10	11	5.6	70
FRESNO	99	1010.5	1022.7	10.0	0.6	5.2	-2.3	18.3	28	- 3.9	24+	0	15	1.7	86	28	- 23	20	5	0	56	51	1.7	NW	11.6	NW	20	6	9	16	6.7	48
LONG BEACH	10	1018.3	1019.7	18.9	6.1	12.6	1.3	27.8	7	2.8	14	0	0	3.9	63	60	9	35	4	1	T	0	2.9	WNW	14.3*	E	10	18	8	5	3.6	
LOS ANGELES	30	1015.9	1019.8	19.4	7.8	13.4	1.5	30.0	7	3.3	15+	0	0	3.9	61	68	1	31	4	1	T	T	2.6	E	17.0*	NW	21	18	7	6	3.5	
LOS ANGELES U	95			19.4	8.9	14.2	0.9	29.4	7	3.9	22	0	0	2.2	51	65	- 13	40	5	2	T	0	2.8	N#	15.6	SE	22	21	2	8	3.4	83
MT SHASTA R	1080	899.1		6.1	- 5.0	0.3	-0.4	16.1	8	-18.9	21	0	28			51	-110	39	3	0	505	229						21	4	6	3.4	
OAKLAND	1	1022.0	1022.5	14.4	3.3	9.0	0.1	23.9	8	- 1.1	23	0	5	1.7	65	26	- 71	19	3	0	T	T	2.4	NNE	13.0*	WNW	19	15	6	10	4.5	
POINT ARGUELLO	112	1006.4		16.7	3.9	10.1	0.3	25.6	7	- 1.1	15+	0	4			39	- 21	18	5	0	T	T	3.4		13.4*	WNW	21	16	6	9	4.1	
RED BLUFF	104	1010.2	1023.5	14.4	1.7	8.1	0.6	25.0	8+	- 6.1	21	0	12	- 1.7	59	32	- 77	20	4	0	T	T	4.5	NNW	25.0	SE	19	18	3	10	4.2	79
SACRAMENTO	5	1022.4	1023.4	10.6	0.0	5.4	-2.4	18.9	10	- 3.9	25+	0	17	1.1	82	25	- 55	23	2	0	T	T	2.5	SE	15.2	S	19	14	4	13	5.4	63
SACRAMENTO U	7			11.7	1.7	6.7	-1.6	18.9	30+	- 3.9	22	0	8			24	- 67	20	2		T	T										
SANDBERG R	1377	865.2		8.3	1.7	4.8	0.4	19.4	7	- 7.2	22	0	13			53	- 12	45	4	0	467	457	7.9	NE	21.5*	ENE	10	18	5	8	3.4	
SAN DIEGO	4	1015.9	1019.1	19.4	7.8	13.7	0.7	28.3	28	4.4	15+	0	0	4.4	60	69	18	37	6	0	0	0	2.5	NW	13.9	S	20	18	9	4	3.4	80
SAN FRANCISCO	2	1022.0	1022.9	13.3	3.3	8.5	-0.7	21.7	9	- 1.1	21	0	7	3.3	75	43	- 59	27	4	0	38	25	2.7	WNW	19.7	SSW	19	14	8	9	4.5	
SAN FRANCISCO U	16			15.0	7.2	11.1	0.7	26.1	8	0.0	21	0	1			27	- 88	20	3	0	T	0	2.7	NW#	13.0	SW	19					79
SANTA MARIA	73	1011.9	1020.9	18.3	2.2	10.2	0.1	28.3	8+	- 3.3	14	0	7	2.8	66	51	- 21	29	5	0	T	0	1.8	WNW	7.6*	NNE	23+	18	6	7	3.6	
COLORADO																																
ALAMOSA	2297	770.4		0.6	-19.4	- 9.3	-1.2	8.9	31	-31.1	11	0	31			2	- 5	1	2	0	41	51						16	5	10	4.3	
COLORADO SPRINGS	1882	811.0	1025.4	2.2	-13.3	- 5.5	-3.6	17.2	31	-28.9	10	0	31	-12.8	62	11	3	8	5	0	163	127	3.8	NNE	13.4*	SW	20	14	5	12	4.7	
DENVER	1610	838.1	1024.4	0.6	-14.4	- 6.9	-5.8	17.2	2	-31.1	10+	0	31	-15.6	56	34	20	26	10	0	437	305	3.8	SSW	16.1	NE	6	15	3	13	4.8	76

See footnotes at end of table

CLIMATOLOGICAL DATA

METRIC UNITS

State and Station	Elevation (ground)	Pressure		Temperature											Average relative humidity	Precipitation							Wind					No. of days sunrise to sunset				
												No. of days							No. of days		Snow, Sleet				Fastest mile (1.6 kilometers)							
		Station	Sea level	Average maximum	Average minimum	Average	Departure from normal	Highest	Date	Lowest	Date	Max 32.2 °C or above	Min 0 °C or lower	Average dew point		Total	Departure from normal	Greatest in 24 hours	25 mm or more	With thunderstorms	Total	Maximum depth on ground	Average speed	Prevailing direction	Speed	Direction	Date	Clear 0-3	Partly cloudy 4-7	Cloudy 8-10	Sky cover, tenths, sunrise to sunset	Possible sunshine
	M	Mb	Mb	C	C	C.	C	C		C				C.	%	Mm	Mm.	Mm			Mm	Mm	M.p.s		M.p.s							
COLORADO																																
GRAND JUNCTION	1478	864.2	1027.6	0.6	-11.1	- 5.1	-1.7	7.8	31+	-19.4	16	0	31	-10.6	67	10	- 6	6	6	0	117	102	2.3	ENE	14.3	NE	9	16	4	11	4.8	69
PUEBLO	1414	858.1	1024.2	5.0	-14.4	- 4.7	-3.6	20.6	31	-31.7	11+	0	31	-12.2	64	6	- 2	5	5	0	193	152	3.4	W	25.0	N	6	19	4	9	4.4	77
CONNECTICUT																																
BRIDGEPORT	2	1019.5	1020.8	2.8	- 5.6	- 1.4	-0.4	10.6	15	-12.8	31	0	26	- 7.2	65	91	- 3	61	10	0	46	25	6.4	WNW	17.4*	NNW	30	9	7	15	6.1	
HARTFORD	52	1012.9	1019.2	1.7	- 8.9	- 3.7	-0.7	12.2	15	-16.1	12	0	29	- 9.4	50	98	7	62	8	0	41	76	4.1	N	16.1	SW	[illegible]	8	8	15	6.5	57
NEW HAVEN	2	1020.3		2.8	- 6.1	- 1.7	-0.4	11.1	15	-13.3	31	0	26			100	- 1	72	12	0	46	51	4.2		17.0	W	23	9	5	17	6.5	59
DELAWARE																																
WILMINGTON	24	1017.6	1021.0	4.4	- 5.0	- 0.4	-1.2	13.9	7+	-12.8	31+	0	27	- 5.6	69	64	- 23	41	10	1	30	T	5.1	NW	13.0*	NNW	30	7	8	16	6.7	
DIST.OF COLUMBIA																																
WASH NATL AP	4	1017.0	1021.6	6.1	- 2.8	1.4	-1.3	16.7	4	-12.8	11	0	24	- 6.1	54	40	- 37	24	9	1	51	25	3.9	S	17.9	WSW	15	7	8	16	6.7	46
FLORIDA																																
APALACHICOLA U	4	1020.1		15.0	6.7	10.9	-1.9	22.2	25	- 5.6	11	0	4			52	- 28	32	5	0	T	T	3.6		14.8	SE	5	12	5	14	5.5	69
DAYTONA BEACH	9	1020.5	1022.4	20.0	8.3	14.0	-1.1	28.9	27	- 0.6	13	0	4	10.0	79	23	- 27	15	6	0	0	0	4.1	N	16.1*	W	6	7	11	13	6.5	
FORT MYERS	4	1020.4		25.0	11.7	18.4	0.9	31.1	22	0.0	13	0	1			11	- 28	5	6	0	0	0	4.3		12.1*	N	12	11	13	7	5.3	
JACKSONVILLE	7	1021.5	1022.9	17.8	6.7	12.0	-1.3	28.9	27	- 4.4	13	0	3	7.8	79	55	- 7	23	10	2	0	T	4.2	N	16.1	SW	6	7	5	19	6.9	38
KEY WEST	2	1019.4	1020.9	23.9	18.3	21.0	0.1	27.8	19	12.2	13+	0	0	16.7	78	24	- 15	16	7	0	0	0	5.0	NE	13.4	N	12	11	15	5	4.8	71
LAKELAND U	65			22.2	10.0	16.1	-0.4	28.9	27+	- 0.6	13	0	1			36	- 16	12	5	0	0	0	3.4					9	13	9	5.5	59
MIAMI BEACH	3			23.9	17.8	20.8	0.2	27.8	8	6.7	3	0	0			37	- 6	10	9	0	0	0	3.5		12.5	E	21+	8	15	8	5.3	56
MIAMI	2	1019.0	1020.5	24.4	15.6	20.1	0.7	27.8	19+	3.3	3	0	0	15.0	75	37	- 14	13	7	0	0	0	4.3	ESE	12.1*	S	6	8	14	9	5.7	
ORLANDO	32	1017.5	1022.4	22.2	9.4	16.1	0.3	30.6	23	- 0.6	13	0	1	11.1	78	28	- 23	11	5	1	0	0	4.3	NNE	10.3*	WNW	28+	6	16	9	5.9	
PENSACOLA U	4			15.0	5.6	10.1	-2.2	23.9	23	- 9.4	11	0	5			102	- 7	50	13	2	T	T	4.6		11.6	N	10+					55
TALLAHASSEE	18	1020.2	1023.0	17.2	4.4	10.6	-1.6	24.4	25+	-10.0	13	0	10	6.7	81	43	- 44	20	8	1	0	0	4.6	S	14.3*	SSW	6	9	5	17	6.3	
TAMPA	6	1020.6	1022.4	21.7	10.0	15.8	-0.4	28.3	22	- 1.7	13	0	1	11.1	76	36	- 19	27	6	2	0	0	5.1	N	13.9*	W	28+	6	16	9	5.8	67
WEST PALM BEACH	5	1019.8	1021.1	25.0	14.4	19.6	0.2	28.9	27	2.2	3	0	0	15.0	76	31	- 32	18	7	0	0	0	4.6	NNW	12.1*	SSE	6	10	10	11	5.8	
GEORGIA																																
ATHENS	245	992.3	1022.5	10.6	0.6	5.5	-1.5	21.7	26	- 9.4	13	0	18	1.7	79	133	9	50	14	0	51	25	4.0	S	13.0*	NW	15	7	4	20	6.9	
ATLANTA	297	979.7		10.0	0.0	5.0	-2.1	20.6	26	-13.3	11	0	17			133	20	36	14	0	89	51	4.6		11.2*	NW	10	7	8	16	6.6	44
AUGUSTA	44	1014.7	1022.5	13.3	1.7	7.6	-1.1	24.4	26	-10.0	13	0	14	2.8	77	165	89	57	10	1	T	T	3.0	N	12.1*	WNW	15	8	5	18	7.2	
COLUMBUS	117	1008.3		12.8	1.7	7.2	-1.6	22.2	26+	-10.6	11	0	14			151	48	65	13	1	T	T	4.3		14.3*	SW	6	9	7	15	6.4	
MACON	109	1008.3	1022.6	13.3	2.2	7.9	-1.7	23.9	26	- 7.8	13+	0	11	2.2	73	198	112	113	11	2	T	T	3.3	NW	17.0	S	6	8	5	18	6.7	47
ROME	194	999.2		8.9	- 1.7	3.7	-1.9	21.7	26	-15.0	13+	0	21			205	65	56	15	0	84	51						8	5	18	6.6	
SAVANNAH	15	1020.3	1023.3	15.6	3.3	9.4	-1.5	27.2	26	- 8.9	13	0	8	5.0	79	130	59	53	8	2	T	T	4.2	WSW	14.8	W	6	8	6	17	6.5	61
THOMASVILLE U	86			16.1	5.0	10.6	-1.5	25.0	25+	- 7.8	13	0	4			70	- 21	22	10	0	T	T										
HAWAII																																
HILO	9	1013.2	1015.5	27.2	17.2	22.3	0.7	30.0	30+	15.0	27+	0	0	17.2	76	64	-236	19	11	2	0	0	4.2	SW	15.6*	S	6	6	14	11	6.0	56
HONOLULU	2	1014.6	1015.0	27.2	20.0	23.7	1.2	28.9	24+	17.2	4	0	0	17.8	72	56	- 40	25	11	1	0	0	5.6	ENE	19.2	S	6	7	11	13	6.4	66
LIHUE	35	1008.8	1014.6	26.7	18.9	22.7	1.1	28.9	20	15.0	1	0	0	18.3	78	362	222	174	21	3	0	0	4.7	S	18.8	SW	6	6	9	16	6.7	57
IDAHO																																
BOISE	865	929.9	1030.9	- 2.2	-10.0	- 6.1	-4.2	10.6	8+	-24.4	23+	0	31	-10.6	70	25	- 8	12	8	0	234	178	3.0	SE	10.7	SE	14	5	8	18	7.0	52
IDAHO FALLS 42NW R	1460			- 6.1	-22.2	-14.3	-3.9	3.3	7	-41.1	23	0	31			13	- 1	8	6													
IDAHO FALLS 46W R	1504	853.7		- 5.0	-19.4	-12.2	-3.0	5.6	7	-40.0	21	0	31			20	2	14	6	0	218	229	2.0	WSW	10.7A	SW	7					
LEWISTON	431	974.3		4.4	- 4.4	0.1	0.8	15.6	7	-19.4	21	0	21			13	- 15	8	7	0	102	51						5	3	23	8.1	
POCATELLO	1355	868.9	1031.1	- 2.8	-15.0	- 9.1	-3.7	6.7	7	-34.4	22	0	31	-12.2	80	30	- 1	18	10	0	442	305	3.8	WSW	21.0	S	20	6	8	17	7.2	49
ILLINOIS																																
CAIRO U	96	1009.3		5.0	- 3.9	0.6	-2.4	16.1	26	-18.9	10	0	25			146	33	55	13	4	69	51	4.6	SW#	15.6	NE	27	8	6	17	6.5	49
CHICAGO O HARE	201	994.0	1020.0	- 4.4	-12.8	- 8.4		5.6	4+	-26.1	10	0	31	-12.2	76	61		23	10	0	472	254	5.8	SW	15.6*	N	30	6	8	17	6.7	
CHICAGO MIDWAY	186	996.2	1020.3	- 3.9	-11.7	- 7.7	-4.4	5.6	4	-24.4	10	0	30	-11.7	73	64	17	20	12	0	511	305	5.6	W	17.0	NW	30	6	8	17	6.8	38
MOLINE	177	997.9	1021.7	- 3.9	-13.3	- 8.8	-3.8	6.1	4+	-25.6	20	0	31	-13.9	65	53	12	17	8	0	284	254	4.4	WNW	13.0	NW	8	7	6	18	6.8	57
PEORIA	199	998.3	1022.1	- 3.9	-13.3	- 8.6	-5.1	6.7	3	-25.6	11+	0	31	-13.3	68	50	2	19	10	0	267	178	4.8	S	12.1	W	8	8	4	19	6.7	57
ROCKFORD	222	991.4	1020.4	- 5.0	-13.9	- 9.7	-4.2	4.4	3	-26.7	11	0	31	-12.8	78	60	10	18	11	0	406	305	5.1	WNW	10.7*	WSW	29	8	7	16	6.7	
SPRINGFIELD	179	997.5	1022.1	- 2.2	-11.1	- 6.6	-4.6	10.0	4+	-23.9	10	0	29	-10.6	74	77	29	34	12	0	323	152	5.5	WNW	15.6	S	13	6	10	15	6.6	57
INDIANA																																
EVANSVILLE	116	1005.7	1022.3	2.8	- 7.2	- 2.1	-3.3	17.2	26	-23.9	10	0	28	- 5.0	81	111	10	53	12	2	74	25	4.2	NW	13.0	SW	6	8	5	18	6.7	44

See footnotes at end of table

CLIMATOLOGICAL DATA

METRIC UNITS

JANUARY 1962

State and Station	Elevation (ground)	Pressure		Temperature											Average relative humidity	Precipitation							Wind					No. of days (sunrise to sunset)			Sky cover, tenths (sunrise to sunset)	Possible sunshine
												No. of days							No of days		Snow, Sleet				Fastest mile (1.6 kilometers)							
		Station O	Sea level	Average maximum	Average minimum	Average	Departure from normal	Highest	Date	Lowest	Date	Max 32.2 °C or above	Min. 0 C or lower	Average dew point		Total	Departure from normal	Greatest in 24 hours	25 mm or more	With thunderstorms	Total	Maximum depth on ground	Average speed	Prevailing direction	Speed	Direction	Date	Clear, 0-3	Partly cloudy, 4-7	Cloudy, 8-10		
	M.	Mb.	Mb.	C.	C.	C.	C.	C.		C.				C.	%	Mm.	Mm	Mm			Mm.	Mm.	M.p.s.		M.p.s.							%
INDIANA																																
FORT WAYNE	241	987.7	1020.7	- 2.2	- 9.4	- 5.7	-2.6	7.2	26	-22.8	10	0	30	- 8.9	77	79	11	25	14	0	107	102	5.9	SW	18.8	SW	7	7	4	20	6.9	49
INDIANAPOLIS	242	989.8	1021.2	0.0	- 8.9	- 4.6	-3.0	13.3	26	-24.4	10	0	28	- 7.8	77	116	39	35	12	0	130	102	4.1	WSW	11.2	NW	15+	5	7	19	7.3	36
SOUTH BEND	234	990.1	1019.7	- 2.8	-11.1	- 7.2	-3.6	5.6	5	-24.4	10	0	31	-10.0	79	85	29	25	19	0	475	203	5.6	SW	13.4*	NNW	30	6	6	19	7.2	
IOWA																																
BURLINGTON	212	995.1	1022.3	- 3.3	-13.3	- 8.2	-3.9	7.8	3	-25.0	20	0	31	-12.2	72	51	9	17	12	0	267	178	5.2	WNW	14.8	NW	8	8	7	16	6.6	61
DES MOINES	289	990.3	1023.6	- 5.6	-15.6	-10.6	-4.6	5.6	3	-28.3	20	0	31	-13.9	79	14	- 19	8	6	0	107	330	4.5	NW	12.5	NW	8+	6	6	19	7.1	48
DUBUQUE	325	994.3		- 6.1	-15.0	-10.6	-3.5	3.9	26	-25.0	9	0	31			37	- 9	13	10	0	246	305						6	4	21	7.2	
SIOUX CITY	334	979.2	1023.1	- 3.9	-15.6	- 9.7	-2.3	9.4	31	-27.8	20	0	31	-13.3	76	8	- 12	5	6	0	74	127	5.0	NNW	17.0	N	4	9	5	17	6.2	63
WATERLOO	265	987.7	1021.9	- 6.1	-16.7	-11.3	-3.8	5.0	3	-30.0	20	0	31	-13.9	78	3	- 27	1	6	0	38	203	4.9	NW	14.8*	NNW	7	6	6	19	7.2	
KANSAS																																
CONCORDIA U	419	971.2		0.6	-10.0	- 4.6	-2.4	16.1	31	-21.7	20	0	30	-10.0	69	23	6	13	9	0	119	76	3.9	W#	13.9	NW	7	11	8	12	5.5	65
DODGE CITY	791	931.1	1023.1	3.3	- 9.4	- 3.1	-2.6	20.6	31	-22.2	11	0	30	- 8.9	70	14	- 0	6	6	0	86	76	5.1	NNW	19.7	N	5	11	6	14	5.5	67
GOODLAND	1111	890.4	1022.9	2.8	-12.2	- 4.9	-2.4	19.4	31	-27.2	19	0	31	-11.1	67	9	- 1	7	5	0	173	76	5.8	WSW	19.7*	NW	6	12	9	10	5.0	
TOPEKA	267	986.0	1023.8	- 0.6	-11.7	- 6.0	-4.2	11.7	3	-23.3	23+	0	30	-10.0	75	51	25	18	8	0	457	229	5.6	NNW	23.2	S	13	9	6	16	6.1	65
WICHITA	403	972.1	1023.3	1.7	- 8.9	- 3.6	-3.6	13.9	29+	-24.4	20	0	29	- 7.8	78	27	7	15	7	0	470	432	5.2	N	21.9	N	7	11	4	16	6.0	57
KENTUCKY																																
COVINGTON	265	988.1	1021.7	2.8	- 6.7	- 2.1	-2.4	18.3	26	-22.8	11+	0	28	- 5.6	60	101	11	47	10	1	99	51	5.3	SW	17.9*	W	26	6	5	20	7.4	
LEXINGTON	298	984.7	1022.1	3.9	- 6.1	- 1.2	-2.6	20.0	26	-22.8	11	0	27	- 3.9	70	109	- 17	33	12	[illegible]	155	[illegible]	5.6	SW	17.4*	WSW	6	8	5	18	6.9	
LOUISVILLE	144	1002.1	1022.1	4.4	- 6.1	- 0.8	-2.2	20.6	26	-21.1	10	0	27	- 3.9	63	102	- 2	40	13	1	122	51	4.1	S	17.4	W	8	9	3	19	7.2	39
LOUISIANA																																
ALEXANDRIA	28	1018.2	1023.1	13.3	0.6	6.8		23.9	30+	-15.0	12	0	15	2.8	78	152		47	10	3	36	25	3.1	N				9	5	17	6.3	
BATON ROUGE	20	1019.8	1022.9	15.0	2.8	8.8	-2.6	26.7	25	-12.2	11	0	12	4.4	78	163	41	69	10	1	8	T	4.4	NNE				10	4	17	6.2	
BURWOOD R	2		1022.8	15.6	7.2	11.3	-2.8	23.9	24	- 6.1	11	0	4	8.9	85	53	- 51	25	7	2	T	0	6.1	NE								
LAKE CHARLES	4	[illegible]	1022.3	14.4	3.3	8.9	-2.9	24.4	31	- 9.4	11+	0	8	3.9	74	[illegible]	- 11	31	8	1	T	T	7.3	N	25.9*	NW	14	12	2	17	6.3	
NEW ORLEANS	1	1020.4	1022.8	16.1	4.4	10.3	-2.0	27.2	26	-10.0	11	0	10	6.1	79	106	9	28	3	3	T	T	3.8	N	12.1*	N	4	10	4	17	5.9	
NEW ORLEANS AUDUBON	3	1015.8		16.7	5.0	10.6		26.7	25	-10.6	11	0	8			88		25	10		T	T						10	11	10		
SHREVEPORT	77	1013.9	1023.6	11.7	0.0	5.8	-2.8	24.4	30	-16.1	12	[illegible]	15	1.7	78	108	- 14	39	10	2	89	102	4.5	SSE				8	7	16	6.3	52
MAINE																																
CARIBOU	190	990.4	[illegible]	- 6.1	-18.9	-12.4	-0.4	7.2	16+	-30.0	31	[illegible]	31	-11.1	67	47	- 7	14	[illegible]	0	323	152	6.1	WSW	21.5*	SW	16	7	[illegible]	14	6.3	
PORTLAND	19	1013.7	[illegible]	[illegible]	-12.2	- 6.3	-0.7	8.9	15	-23.3	31	[illegible]	31	-10.0	51	68	- 43	26	9	0	251	178	4.6	SW	[illegible]	[illegible]	15	11	6	14	[illegible]	59
MARYLAND																																
BALTIMORE	[illegible]	[illegible]	[illegible]	[illegible]	- 5.0	[illegible]	-1.3	16.1	25	-16.1	11	[illegible]	25	- 7.2	[illegible]	[illegible]	- 36	33	8	[illegible]	51	25	4.4	NW	15.2	SW	7	[illegible]	7	17	[illegible]	[illegible]
BALTIMORE U	[illegible]			[illegible]	- 2.8	1.4	-1.6	15.6	25+	-12.2	11	[illegible]	22			54	- 33	37	7													
FREDERICK	[illegible]			[illegible]	[illegible]	- 1.0	[illegible]	14.4	25	-15.0	12	[illegible]	[illegible]			[illegible]	- 25	34	9		36	25										
MASSACHUSETTS																																
BLUE HILL OBS R	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	- 3.4	[illegible]	[illegible]	[illegible]	-16.7	31	[illegible]	[illegible]		[illegible]	[illegible]	- 11	56	10		[illegible]	[illegible]	7.8	WNW	[illegible]	WNW	[illegible]					[illegible]
BOSTON	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	- 1.8	-0.7	[illegible]	[illegible]	-14.4	31	[illegible]	6	[illegible]	[illegible]	[illegible]	[illegible]	47	[illegible]	0	[illegible]	[illegible]	7.2	WNW	19.8	[illegible]	[illegible]	[illegible]	11	[illegible]	[illegible]	[illegible]
NANTUCKET	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	31	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	17	0	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
PITTSFIELD	[illegible]			[illegible]	[illegible]	- 6.2	-0.5	[illegible]	[illegible]	[illegible]	31	[illegible]	[illegible]			[illegible]	11	[illegible]	13		[illegible]	[illegible]										
WORCESTER	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	-0.3	[illegible]	[illegible]	-18.3	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	105	11	[illegible]	[illegible]	0	[illegible]	[illegible]	[illegible]	[illegible]	13.9*	W	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	
MICHIGAN																																
[illegible]	[illegible]	[illegible]		[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]		[illegible]	[illegible]	[illegible]	[illegible]	14	0	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	21	[illegible]	[illegible]
DETROIT	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	0	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	19	[illegible]	[illegible]
DETROIT W WAYNE CO	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	0	[illegible]	[illegible]	[illegible]	W				[illegible]	[illegible]	16	[illegible]	
DETROIT WILLOW RUN	217	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	0	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	7	[illegible]	[illegible]	
ESCANABA	[illegible]	[illegible]		[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	0	[illegible]	[illegible]	[illegible]		[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
FLINT	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	0	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	
GRAND RAPIDS	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	0	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	
LANSING	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	0	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	
MARQUETTE	[illegible]	[illegible]		[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	0	[illegible]	[illegible]	[illegible]	W	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	
MUSKEGON	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	0	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	NW	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	
SAULT STE MARIE	[illegible]	[illegible]	[illegible]	[illegible]	-16.7	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	0	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	
MINNESOTA																																
DULUTH	[illegible]	974.8	[illegible]	-11.1	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	31	[illegible]		[illegible]	[illegible]	[illegible]	15		61	[illegible]	[illegible]	NW		[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

[illegible]

CLIMATOLOGICAL DATA

METRIC UNITS

State and Station	Elevation (ground)	Pressure		Temperature											Average relative humidity	Precipitation							Wind					No. of days (sunrise to sunset)			Sky cover, tenths (sunrise to sunset)	Possible sunshine
												No. of days							No. of days		Snow, Sleet				Fastest mile (1.6 kilometers)							
		Station Ø	Sea level	Average maximum	Average minimum	Average	Departure from normal	Highest	Date	Lowest	Date	Max 32.2 °C or above	Min. 0 C or lower	Average dew point		Total	Departure from normal	Greatest in 24 hours	25 mm or more	With thunderstorms	Total	Maximum depth on ground	Average speed	Prevailing direction	Speed	Direction	Date	Clear, 0-3	Partly cloudy, 4-7	Cloudy, 8-10		
	M.	Mb.	Mb.	C.	C.	C.	C.	C.		C.				C.	%	Mm.	Mm.	Mm.			Mm	Mm.	M.p.s.		M.p.s.							%
MINNESOTA																																
INTERNATIONAL FALLS	359	975.5	1020.1	-12.8	-26.1	-19.4	-3.4	0.0	24	-40.0	17	0	31	-23.9	64	24	3	5	17	0	269	406	4.0	NW	11.2*	NW	24+	7	9	15	6.6	
MINNEAPOLIS	251	982.3	1021.4	- 8.9	-18.9	-13.8	-2.9	4.4	3	-33.3	18	0	31	-18.3	69	14	- 4	4	10	0	150	178	5.1	NW	12.5	NW	8	4	12	15	7.2	45
ROCHESTER	395	969.9	1020.6	- 8.3	-17.2	-12.8	-3.1	3.9	3	-29.4	17	0	31	-16.1	76	4	- 19	3	6	0	64	178	6.1	NW				3	6	22	7.6	
ST CLOUD	315	980.6	1021.4	- 8.9	-20.0	-14.3	-2.2	5.6	3	-33.3	17	0	31		68	17	- 1	5	9	0	277	279						7	6	18	6.9	
MISSISSIPPI																																
JACKSON	93	1010.6	1023.1	12.2	0.0	5.9	-2.9	26.1	26	-18.3	12	0	16	1.1	67	179	54	53	13	1	102	102	3.3	N	14.8	N	14	10	4	17	6.2	48
MERIDIAN	89	1008.9	1023.4	12.8	0.0	6.2	-2.8	22.8	30	-17.8	12	0	16	2.2	81	206	87	67	9	2	102	102	3.7	S	1.2*	N	10+	11	3	17	6.0	
VICKSBURG U	71	1013.3		11.1	0.6	5.9	-3.6	24.4	26	-16.7	11	0	10			202	72	67	13	3	76	76	4.1		14.3	S	14	10	3	18	6.3	45
MISSOURI																																
COLUMBIA	237	992.0	1021.8	0.0	-10.0	- 4.8	-3.9	15.6	3	-22.2	10	0	29	- 8.9	75	42	- 1	15	10	0	297	254	4.9	WSW	12.1	S	13+	10	7	14	6.1	54
KANSAS CITY	226	986.1	1023.0	0.0	- 9.4	- 4.7	-4.0	10.6	4+	-20.6	20+	0	28	- 9.4	71	75	39	23	9	0	775	533	4.0	SW	13.9	NW	9	9	8	14	5.9	54
ST JOSEPH	247	986.4		- 2.2	-12.8	- 7.3	-4.6	7.2	29+	-23.9	20	0	31			46	16	14	9	0	384	356	5.5	S	15.6*	NW	9+	10	11	10	5.5	
ST LOUIS	163	1000.6	1022.5	1.1	- 8.9	- 4.1	-4.0	16.7	3	-22.2	10	0	28	- 8.9	73	90	40	33	12	0	335	178	5.3	WNW	14.8	SE	13	8	9	14	6.4	50
ST LOUIS RFC	142			2.2	- 6.7	- 2.3	-3.1	18.9	3	-21.7	10	0	25			110	55	38	13		264	152										
SPRINGFIELD	386	972.9	1022.7	3.3	- 8.3	- 2.8	-3.7	16.1	3	-22.2	20+	0	27	- 7.2	74	52	2	15	10	1	206	127	5.5	SSE	15.2	NW	7	10	4	17	6.2	52
MONTANA																																
BILLINGS	1087	894.7	1024.5	- 1.7	-12.2	- 6.9	-2.0	15.6	31	-31.7	21	0	25	-14.4	58	48	35	21	11	0	589	330	7.9	WSW	17.0	SW	10	5	11	15	6.7	69
GLASGOW	694	946.5		- 5.6	-16.7	-11.2	1.2	9.4	3+	-32.2	18	0	31	-13.9	78	9	- 4	2	9	0	76	51						4	7	20	7.3	
GREAT FALLS	1116	891.6	1024.2	- 2.2	-12.2	- 7.2	-2.0	16.1	31+	-31.7	21+	0	23	-13.3	65	33	17	18	11	0	373	229	7.0	SW	21.0	SW	24	7	6	18	6.9	51
HAVRE	787	930.2		- 3.3	-14.4	- 8.9	1.2	13.9	31	-34.4	21	0	26			5	- 8	1	1	0	79	51	5.6	SW#	18.8	NW	6	7	11	19	6.6	64
HELENA	1187	878.4	1028.6	- 3.3	-14.4	- 9.1	-1.6	13.3	31+	-35.6	21	0	26	- 5.6	61	17	5	5	11	0	257	152	3.9	WNW	24.1	W	6	5	3	23	7.6	60
KALISPELL	904	918.7		- 3.9	-12.8	- 8.3	-0.2	7.8	28	-32.2	21	0	29			25	- 10	8	13	0	384	406	3.3					3	5	23	8.3	
MILES CITY	801			- 2.8	-13.9	- 8.5	0.1	12.8	3	-31.7	21+	0	29	-13.3	69	9	- 2	3	7	0	150	102	5.2	W	20.6*	NNW	6	2	14	15	7.2	
MISSOULA	972	909.2	1030.2	- 4.4	-13.9	- 9.3	-2.2	7.2	26	-30.6	22	0	30	-12.8	75	31	7	22	12	0	229	127	2.9	ESE	15.2	E	8	4	5	22	7.9	42
NEBRASKA																																
GRAND ISLAND	561	953.3		- 0.6	-12.8	- 6.7	-2.3	16.7	31	-26.1	20	0	30	-12.2	67	3	- 13	2	3	0	36	25	5.5	NNW				9	9	13	5.7	
LINCOLN U	351			- 1.1	-11.7	- 6.4	-2.6	10.6	29	-24.4	20	0	30			13	- 10	7	9	0	84	76	4.3	SW#	17.0	SE	13	8	9	14	6.1	66
NORFOLK	471	963.7		- 2.2	-15.0	- 8.6	-1.6	13.9	31	-32.2	20	0	31			8	- 12	4	5	0	89	127						9	7	15	5.9	
NORTH PLATTE	847	918.6	1022.5	2.8	-13.9	- 5.6	-1.2	20.6	31	-26.1	19	0	31	-13.9	59	2	- 9	1	6	0	43	25	5.5	NNW	23.2	NW	6+	9	10	12	5.6	63
OMAHA	298	980.7	1023.2	- 2.2	-12.8	- 7.7	-2.3	8.9	3	-26.1	20	0	30	-11.7	73	10	- 10	5	8	0	127	127	5.4	NW	20.6	N	5	5	11	15	6.5	64
OMAHA N OMAHA AP	403	971.9		- 3.9	-13.9	- 8.8	-2.3	6.7	29	-25.6	20	0	31			9	- 14	4	7	0	114	152						5	12	14	6.4	
SCOTTSBLUFF	1204	881.2	1024.1	1.7	-13.9	- 6.1	-2.1	17.2	31	-31.1	19	0	31	- 3.3	61	9	2	4	5	0	119	51	6.4	WNW	20.6*	NW	6	9	7	15	5.9	
VALENTINE	789	927.2		0.0	-15.0	- 7.6	-0.9	18.3	31	-31.1	20	0	31	-11.7	75	1	- 9	1	2	0	18	25	5.4	N#	25.0	N	6	9	5	17	6.1	72
NEVADA																																
ELKO	1547	850.7	1029.0	0.0	-14.4	- 7.3	-2.1	9.4	8	-31.1	23	0	28	-11.1	74	21	- 9	10	5	0	323	229	2.8	SW	13.0*	W	20	9	8	14	5.6	
ELY	1907	812.1	1026.6	2.2	-15.6	- 6.4	-1.3	11.1	3	-30.6	23	0	31	-13.3	65	21	1	19	5	0	353	330	3.9	S	16.1	S	19	11	7	13	5.8	72
LAS VEGAS	659	955.0	1022.0	13.9	0.0	6.8	0.4	23.9	7	- 8.3	12+	0	16	- 8.3	37	3	- 11	3	1	0	T	0	4.0	WSW	15.6*	WSW	20	17	5	9	3.7	84
RENO	1342	868.9	1028.4	5.6	-11.7	- 2.9	-2.9	17.8	3	-23.3	23	0	29	- 9.4	69	9	- 21	5	3	0	89	51	2.1	SW	17.9	NW	20	13	7	11	4.9	70
WINNEMUCCA	1310	875.0		3.3	-15.0	- 6.0	-3.3	16.1	8	-30.0	23	0	31	-10.0	74	19	- 7	9	5	0	305	254	2.4	NE	17.0	S	20+	12	6	13	5.4	65
NEW HAMPSHIRE																																
CONCORD	103	1007.1	1018.6	0.0	-12.8	- 6.3	-0.3	10.6	15	-22.8	18	0	31	-11.1	35	68	- 14	21	8	0	170	305	2.7	NW	13.4	SW	16	10	8	13	5.5	62
MT WASHINGTON OBS	1909	793.5		-11.1	-22.2	-16.5	-2.2	0.6	7+	-36.7	31	0	31		83	99	- 39	29	19	0	582	254	23.4	W	59.5Y	W	27	5	7	19	7.4	36
NEW JERSEY																																
ATLANTIC CITY	18	1018.4	1021.2	5.6	- 4.4	0.7	-0.9	14.4	6	-13.9	11	0	24	- 5.0	67	107	17	67	11	0	180	152	5.8	WNW	15.6*	WNW	23	9	4	18	6.6	43
ATLANTIC CITY U	3			5.0	- 1.1	1.8	-0.3	11.7	6	- 7.8	31+	0	22			123	27	86	13				5.9		18.3*	NW	23					
NEWARK	3	1019.4	1020.6	3.3	- 5.0	- 0.7	-0.8	13.3	15	-12.8	31	0	27	- 7.2	54	65	- 20	45	11	0	25	T	4.8	SW	14.3*	SW	15	8	7	16	6.4	
TRENTON U	17	1012.9		3.9	- 4.4	- 0.2	-0.8	15.0	15	-12.2	31	0	27			63	- 15	44	11	1	13	T	4.4	NW#	17.0	NW	30	10	6	15	6.4	55
NEW MEXICO																																
ALBUQUERQUE	1618	850.7	1021.6	6.1	- 6.7	- 0.2	-1.9	13.9	20	-21.1	11	0	30	- 8.3	60	26	15	22	6	0	102	51	3.3	N	19.2	E	10	11	7	13	5.3	74
CLAYTON	1515	845.6		6.1	- 9.4	- 1.6	-2.3	19.4	31	-24.4	10	0	30			11	3	8	6	0	76	51						11	8	12	4.9	
RATON	1944	804.6		6.1	-13.3	- 3.6	-1.9	16.1	31	-31.1	11	0	31			9	0	6	6	0	97	51						13	8	10	4.8	
ROSWELL	1101	896.0		10.0	- 8.3	0.9	-1.5	22.2	21	-31.1	11	0	29	- 6.7	64	10	- 3	6	5	1	30	25	3.8		21.9	W	6	10	8	13	5.4	
SILVER CITY	1638	835.4		9.4	- 5.0	2.2		17.2	31	-22.8	11	0	27			40		22	8	0	135	102						16	5	10	4.1	

See footnotes at end of table

CLIMATOLOGICAL DATA

METRIC UNITS

State and Station	Elevation (ground)	Pressure		Temperature											Average relative humidity	Precipitation							Wind					No. of days (sunrise to sunset)			Sky cover, tenths (sunrise to sunset)	Possible sunshine
		Station ⊙	Sea level	Average maximum	Average minimum	Average	Departure from normal	Highest	Date	Lowest	Date	No. of days: Max 32.2 °C or above	No. of days: Min. 0 C or lower	Average dew point		Total	Departure from normal	Greatest in 24 hours	No. of days: 25 mm or more	No. of days: With thunderstorms	Snow, Sleet: Total	Snow, Sleet: Maximum depth on ground	Average speed	Prevailing direction	Fastest mile (1.6 kilometers): Speed	Fastest mile (1.6 kilometers): Direction	Fastest mile (1.6 kilometers): Date	Clear, 0-3	Partly cloudy, 4-7	Cloudy, 8-10		
	M.	Mb.	Mb.	C.	C.	C.	C.	C.		C.				C.	%	Mm.	Mm.	Mm.			Mm	Mm.	M.p.s.		M.p.s							%
NEW YORK																																
ALBANY	84	1015.4	1019.3	- 0.6	-10.6	- 5.6	-0.4	10.6	15	-20.0	31	0	30	-10.0	55	52	- 11	23	8	0	58	152	4.3	S	17.0	W	15	6	9	16	6.7	49
BINGHAMTON	485	956.2	1018.1	- 2.2	-11.1	- 6.8	-1.7	8.3	15	-21.1	31	0	31	-10.0	56	62	- 2	22	13	1	193	127	5.1	WSW	21.0	SW	15	4	8	19	7.6	36
BUFFALO	215	955.8	1018.7	- 1.1	- 9.4	- 5.2	-0.5	7.8	26	-16.1	19	0	31	-10.0	56	71	- 2	13	21	0	665	584	7.2	WSW	22.4	SW	7	0	9	22	8.6	25
NEW YORK U	40	1007.6		4.4	- 3.3	0.3	-0.1	13.3	15	-11.7	31	0	24	12.8	17	67	- 24	45	12	0	15	25	4.7	SW#	16.1	NW	30	9	11	11	5.5	55
NEW YORK	6	1018.6	1020.5	3.9	- 3.3	0.1	-0.8	12.2	15+	-12.2	31	0	23	- 6.7	61	66	- 18	46	10	0	10	T	7.4	WNW	19.2	WNW	30	9	5	17	6.4	
ROCHESTER	166	998.5	1018.9	- 0.6	- 9.4	- 5.1	-1.3	8.9	24	-17.8	31	0	31	- 9.4	73	47	- 14	10	13	0	297	178	6.9	WSW	20.1	W	30+	2	9	20	7.8	43
SCHENECTADY	66			0.0	-10.0	- 5.1	0.8	10.0	15	-18.9	31	0	30			54	- 7	33	8	0	46	152						15	8	8	4.6	
SYRACUSE	129	995.7	1018.9	0.6	- 9.4	- 4.4	0.1	10.0	7	-20.0	31	0	29	-10.0	56	73	- 7	21	19	0	345	152	5.9	WSW	21.0	W	30	5	10	16	7.1	61
NORTH CAROLINA																																
ASHEVILLE U	671	939.6		7.8	- 2.2	3.0	-1.3	22.2	26	-16.1	11	0	22			113	33	22	14	0	338	152	3.8	NW#	13.0	NW	30+	10	5	16	6.0	52
CAPE HATTERAS R	2	1020.2	1020.9	12.2	3.3	7.8	-0.3	21.1	6	- 4.4	31	0	11	5.0	83	177	78	49	13	1	89	76	5.7	N	17.0	SW	7	8	5	18	6.7	
CHARLOTTE	224	992.5	1021.8	8.9	- 1.1	4.1	-2.2	22.2	26	-11.1	13+	0	19	- 1.1	69	189	99	91	11	1	297	102	3.2	SW	15.2	W	15	6	3	22	7.5	36
GREENSBORO	272	988.6	1021.8	7.2	- 3.3	2.1	-2.2	21.7	26	-15.6	11	0	22	- 2.2	76	147	60	63	12	0	366	102	3.7	SW	15.6	W	15	5	7	19	7.4	36
RALEIGH	132	1007.2	1021.6	9.4	- 1.7	3.8	-1.6	22.8	26	-15.0	11	0	21	3.9	76	167	85	69	10	1	257	127	3.7	SSW	15.6*	N	30	5	6	20	7.6	42
WILMINGTON	9	1019.3	1022.1	12.8	1.7	7.3	-1.5	25.0	25	- 8.9	11	0	14	3.9	81	152	80	45	12	1	25	25	4.8	N	15.2	SW	6	8	6	17	6.7	50
WINSTON SALEM	295	985.2	1021.8	7.2	- 2.2	2.5	-2.3	19.4	26	-15.6	11	0	21	- 3.3	65	140	47	40	12	0	480	178	4.2	NE	20.6*	WSW	15+	5	8	18	7.3	
NORTH DAKOTA																																
BISMARCK	502	958.0	1022.3	- 5.6	-17.8	-11.8	1.0	9.4	3	-32.8	17	0	31	-16.1	71	14	3	6	8	0	152	127	5.3	WNW	22.4	N	6	5	7	19	7.1	56
DEVILS LAKE U	448	963.9		-10.6	-21.7	-16.1	-0.8	2.8	3+	-35.0	17	0	31			24	11	7	15	0	277	330	4.2	W#	14.8	N	6	7	6	18	7.3	52
FARGO	274	984.7	1021.9	-10.0	-21.1	-15.3	-1.3	4.4	2	-35.0	17	0	31	-19.4	68	27	14	8	14	0	277	203	5.5	NNW	16.1	N	9+	6	8	17	6.9	41
WILLISTON U	579	950.7		- 6.1	-17.8	-11.8	0.5	7.2	3+	-32.8	17	0	30			12	- 2	5	8	0	119	76	4.3	W#	17.0	W	24+	5	9	17	7.4	36
OHIO																																
AKRON	369	981.0	1021.0	0.0	- 8.9	- 4.5	-1.9	13.3	26	-22.8	10	0	30	- 7.2	60	65	- 7	19	13	0	226	76	7.1	SW	17.9*	WSW	30+	6	4	21	7.4	
CINCINNATI OBS	232			2.8	- 6.7	- 1.9	-2.8	18.9	26	-22.2	10	0	28			99	6	46	11	1	112	51	3.4		10.7	S	6					46
CINCINNATI U	169	997.6		3.9	- 5.6	- 0.8	-2.2	19.4	26	-21.7	10	0	27			85	- 3	40	10		71											
CLEVELAND	237	990.7	1020.0	0.0	- 8.9	- 4.5	-2.1	12.8	26	-22.2	10	0	30	- 7.8	59	72	4	23	14	0	152	76	6.1	SW	16.5	SW	7	4	7	20	7.7	48
COLUMBUS	247	990.1	1021.7	0.0	- 8.3	- 4.1	-3.5	15.0	26	-22.8	10	0	30	- 7.2	57	81	0	20	11	0	99	51	4.5	SSW	20.1	SW	7	7	5	19	7.2	40
COLUMBUS U	221			1.1	- 7.2	- 2.9	-2.8	16.7	26	-22.2	10	0	28			65	- 8	15	10	0	79	51										
DAYTON	305	982.8	1021.0	0.6	- 8.3	- 3.8	-2.4	14.4	26	-23.9	10	0	28	- 6.7	63	74	- 7	29	11	0	119	102	5.4	SSW	17.4*	SW	7	6	7	18	7.0	45
MANSFIELD	395			- 0.6	- 8.9	- 4.8	-2.2	13.9	26	-24.4	10	0	27			74	- 7	22	11	0	137	102						6	7	18	7.2	
SANDUSKY U	184	996.5		0.0	- 8.3	- 4.1	-2.6	11.1	26	-22.2	10	0	30			82	21	24	14	0	180	51	5.0		20.6	SW	7	7	11	13	6.3	59
TOLEDO	206	993.9	1020.4	- 1.7	-10.0	- 5.7	-2.5	9.4	26	-22.2	10	0	31	- 8.3	62	62	3	18	15	0	175	51	5.3	WSW	13.9	SW	7	6	7	18	6.9	51
YOUNGSTOWN	359	975.5	1020.2	- 1.1	-10.0	- 5.4	-3.0	12.2	26	-22.8	10	0	29	- 8.3	59	61	- 19	15	16	1	251	102	5.3	SW	15.6*	SW	7	5	7	19	7.5	
OKLAHOMA																																
OKLAHOMA CITY	390	978.4	1023.8	6.1	- 5.6	0.2	-2.3	21.1	31+	-18.3	11	0	24	- 5.6	70	37	4	25	9	0	216	152	6.1	N	16.1	NW	18+	11	7	13	5.6	59
TULSA	198	997.7	1023.5	5.0	- 7.2	- 1.0	-3.9	20.0	31+	-17.8	11+	0	28	- 6.1	72	34	- 10	13	8	1	69	25	5.1	N	16.1	NW	5	10	4	17	6.0	49
OREGON																																
ASTORIA	2	1025.1	1025.8	8.3	0.6	4.5	-0.3	17.2	30	-10.0	21	0	14	1.7	84	166	-132	42	17	0	T	0	4.4	ESE	15.6*	SSW	14	4	5	22	7.8	
BURNS U	1265	879.1		0.0	-12.2	- 6.1	-2.1	12.8	8	-32.2	21	0	29	-10.0	74	20	- 22	11	6	0	284	229						7	5	19	7.2	
EUGENE	110	1012.5		7.8	- 1.7	3.1	-0.9	16.7	6	-14.4	22	0	20			35	-125	10	9	0	51	51	3.4		16.5*	SW	3	5	9	17	7.2	
MEACHAM	1234			- 0.6	- 7.8	- 4.1	-0.8	8.3	31+	-24.4	21	0	28			78	- 29	26	16	0	521	279						4	6	21	7.8	
MEDFORD	396	978.3	1027.9	3.9	- 4.4	- 0.3	-3.0	14.4	10	-17.8	22	0	27	- 2.8	85	43	- 37	22	9	0	224	178	1.3	N	10.3*	WSW	3	2	7	22	8.2	
PENDLETON	452	971.6	1027.2	4.4	- 3.9	0.2	0.3	15.0	7	-23.3	21	0	19	- 3.9	76	18	- 18	8	6	0	208	152	3.9	SSE	21.9*	W	3	3	6	22	8.2	
PORTLAND	6	1021.0	1026.7	7.2	0.0	3.7	0.1	15.0	30	-12.8	21	0	15	- 1.1	74	40	- 96	13	13	0	18	T	3.5	ESE	17.0	E	1[illegible]	5	6	20	7.8	30
PORTLAND U	9			7.8	1.1	4.3	-0.3	15.6	31	- 8.9	21	0	8			40	-121	14	12		23	T										
ROSEBURG	154	1007.5		7.8	- 2.2	2.8	-1.8	16.7	7	-18.3	22	0	22			35	-105	15	13	0	191	203	1.3	S#	8.5	SW	3	2	11	18	7.7	37
SALEM	59	1019.3	1026.6	7.2	- 1.1	2.8	-1.1	15.6	7	-13.3	22	0	19	- 1.7	73	28	-142	7	10	0	64	51	3.5	S	12.5*	S	14	3	5	23	8.0	
SEXTON SUMMIT R	1169	889.3		6.1	- 0.6	2.7	1.8	16.7	31	-18.9	21	0	16			46	- 96	23	11	0	376	305	4.4	ESE				11	5	15	5.6	
PACIFIC AREA																																
CANTON ISLAND	2	1007.9	1008.3	31.7	25.6	28.7	0.3	32.2	31+	24.4	16+	5	0	22.2	71	3	- 64	2	4	0	0	0	6.5	E	10.3*	ENE	29+	19	12	0	3.4	
ENIWETOK	4	1008.8		30.0	26.1	28.1	0.8	31.1	31+	24.4	26	0	0	22.2	71	9	- 17	2	10	0	0	0	8.2									
JOHNSTON	2	1010.2	1010.7	27.8	21.7	24.7	-0.3	30.0	18	18.3	23	0	0	20.6	76	50	- 49	26	9	0	0	0	5.8	E	13.4	E	8	15	13	3	4.0	91
KOROR R	29	1005.4	1007.9	29.4	23.9	26.8	-0.1	31.7	5	22.8	31+	0	0	23.9	86	426	128	100	25	2	0	0	3.5	NE	11.6	NE	15	0	0	31	9.9	41
KWAJALEIN	2	1007.1	1008.0	30.0	25.0	27.4	0.7	30.6	25+	23.3	19+	0	0	22.8	77	89	- 3	38	18	0	0	0	8.8	ENE	13.4*	E	9+	7	12	12	6.3	
MAJURO	3	1008.5	1009.5	29.4	25.0	27.2	0.4	30.6	13+	23.3	16	0	0	23.9	81	446	268	123	27	1	0	0	6.0	ENE	15.2	NE	23	0	6	25	8.8	65
PONAPE R	37	1003.1	1007.5	29.4	23.9	26.7	-0.2	31.1	27	22.8	29+	0	0	23.3	84	677	396	119	26	4	0	0	3.6	NE	11.6	E	22	0	4	27	9.4	40

See footnotes at end of table

CLIMATOLOGICAL DATA

METRIC UNITS

State and Station	Elevation (ground)	Pressure		Temperature											Average relative humidity	Precipitation							Wind					No. of days (sunrise to sunset)			Sky cover, tenths (sunrise to sunset)	Possible sunshine
												No. of days							No. of days		Snow, Sleet				Fastest mile (1.6 kilometers)							
		Station Ø	Sea level	Average maximum	Average minimum	Average	Departure from normal	Highest	Date	Lowest	Date	Max 32.2 °C or above	Min. 0 C or lower	Average dew point		Total	Departure from normal	Greatest in 24 hours	.25 mm. or more	With thunderstorms	Total	Maximum depth on ground	Average speed	Prevailing direction	Speed	Direction	Date	Clear, 0-3	Partly cloudy, 4-7	Cloudy, 8-10		
	M.	Mb.	Mb.	°C.	C.	C.	°C.	C.		C.				°C.	%	Mm.	Mm.	Mm.			Mm.	Mm.	M.p.s.		M.p.s.							%
PACIFIC AREA																																
TAGUAC GUAM R	110			29.4	21.1	25.2	-0.4	30.6	27+	15.6	20+	0	0			57	- 61	47	9	0	0	0	3.2	E#	13.9	E	8					67
TRUK MOEN ISLAND	2	1007.2	1007.5	29.4	25.6	27.4	0.3	31.1	2+	23.3	4	0	0	23.9	81	201	- 12	88	24	1	0	0	3.6	NNE	8.0	NE	18	0	6	25	8.9	55
WAKE ISLAND	3	1012.4	1012.8	27.8	22.8	25.3	0.1	30.6	4	19.4	16	0	0	19.4	73	12	- 17	6	6	0	0	0	5.0	E	13.0*	NE	12	11	15	5	4.7	
YAP R	17	1007.1	1008.0	30.0	24.4	27.1	0.2	31.7	3+	22.2	29+	0	0	23.9	84	217	17	62	20	0	0	0	5.2	NE	14.8	NE	25	0	0	31	9.9	68
PENNSYLVANIA																																
ALLENTOWN	115	1005.7	1020.7	1.7	- 7.8	- 3.1	-1.4	13.9	15	-15.0	12	0	30	- 7.8	64	74	- 7	45	12	0	23	102	4.9	WSW	18.8*	W	30	8	4	19	6.8	
ERIE	223	990.2	1019.3	0.0	- 8.9	- 4.5	-1.9	11.7	26	-18.9	10	0	31	- 8.3	69	84	16	20	18	1	241	102	6.9	SW	17.4*	SW	7	2	7	22	8.0	
HARRISBURG	102	1006.4	1020.9	2.8	- 7.2	- 2.2	-2.1	12.8	25	-15.0	12	0	29	- 7.8	58	55	- 15	30	9	0	58	127	3.5	W	14.3	NW	30	5	7	19	7.0	41
PHILADELPHIA	2	1016.0	1020.7	3.3	- 5.6	- 1.1	-1.3	13.9	15+	-12.8	31+	0	28	- 6.7	64	75	- 9	53	11	0	28	T	4.3	WSW	14.8	SW	30	6	8	17	6.7	53
PHILADELPHIA U	11			5.0	- 2.8	1.2	-0.4	15.6	15	-11.1	31+	0	24																			
PITTSBURGH	351	989.3	1020.9	1.7	- 7.8	- 3.2	-1.5	15.6	26	-19.4	10	0	28	- 7.2	56	59	- 16	22	13	0	102	51	5.0	WSW	14.3*	SW	7	6	2	23	7.5	44
PITTSBURGH U	228			2.8	- 6.1	- 1.5	-2.2	17.2	26	-18.3	10	0	27			67	- 5	23	11		97											26
READING U	81	1008.0	1020.6	3.3	- 5.0	- 0.9	-1.3	13.9	15+	-12.8	11	0	28			71	- 7	43	11	0	23	76	4.8		21.0	NW	30	9	3	19	6.6	45
SCRANTON	287	984.4	1020.3	1.1	- 8.9	- 3.9	-1.0	12.8	15	-16.7	31	0	28	- 9.4	50	68	10	34	10	1	69	127	4.3	SW	17.9	SW	15	8	5	18	6.8	44
WILLIAMSPORT	161	1001.0	1020.9	1.7	- 8.3	- 3.3	-1.5	11.7	7	-16.7	12	0	29	- 9.4	55	79	11	23	14	1	155	102	4.0	W	13.9*	WNW	30	8	3	20	6.9	
RHODE ISLAND																																
BLOCK ISLAND	34	1014.5	1019.0	3.3	- 4.4	- 0.6	-0.9	13.9	7+	-13.3	31	0	25			129	31	103	11	0	97	76						7	11	13	6.5	
PROVIDENCE	17	1012.9	1019.4	2.8	- 6.7	- 1.9	-0.4	12.8	15	-14.4	31	0	28	- 8.3	47	119	23	85	10	0	124	152	5.4	N	17.0*	SSW	30	9	9	13	5.8	59
SOUTH CAROLINA																																
CHARLESTON	12	1020.0	1022.2	14.4	2.2	8.4	-1.8	25.6	27+	- 8.9	13	0	14	2.8	73	91	27	27	11	1	T	T	4.1	NNE	22.8Y	S	6	8	5	18	6.7	50
CHARLESTON U	3			13.9	4.4	9.2	-1.7	24.4	27+	- 4.4	12	0	5			70	9	28	11		T	T	4.6		14.8	SW	6					
COLUMBIA	66	1009.1	1022.5	13.3	1.1	7.1	-1.2	24.4	26	-10.6	13	0	14	1.7	74	165	88	57	10	1	T	T	3.2	SW	15.6*	W	15+	7	6	18	6.9	46
FLORENCE	45	1015.6	1021.6	12.8	1.1	7.0	-1.6	25.6	26	- 8.9	13	0	15	1.1	72	93	26	28	12	0	8	T	3.9	N	15.6*	SW	6	9	4	18	6.6	
GREENVILLE	308	982.8	1021.5	10.0	0.6	5.2	-1.7	21.1	26	- 9.4	13	0	14	0.0	74	118	9	38	13	0	221	127	3.9	WSW	15.2	W	15	6	5	20	7.3	34
SPARTANBURG	244	990.8	1021.8	9.4	0.0	4.7	-1.8	20.0	26+	-10.0	11	0	19	0.0	77	133	24	38	13	1	251	178	3.8	SW	20.6*	WNW	15	6	4	21	7.3	
SOUTH DAKOTA																																
HURON	391	972.9	1023.2	- 5.0	-18.3	-11.7	-1.4	15.0	3	-31.7	20	0	31	-15.0	77	6	- 7	2	7	0	94	76	5.9	NNW	21.5	NW	8	8	5	18	6.7	53
RAPID CITY	965	903.3	1023.0	- 0.6	-13.3	- 7.1	-1.5	16.1	31	-27.8	22+	0	29	-12.8	65	13	4	4	7	0	124	76	5.3	NNW	22.4	NW	6	8	6	17	6.3	59
SIOUX FALLS	433	967.0	1022.1	- 5.0	-16.7	-10.7	-1.3	8.3	3	-30.0	20	0	31	-16.7	61	7	- 8	4	8	0	97	127	5.0	NW	13.9*	NW	9	8	7	16	6.4	
TENNESSEE																																
BRISTOL	459	965.1	1021.5	7.2	- 2.8	1.9	-1.6	19.4	26	-20.0	11	0	25	- 2.8	69	131	37	39	17	0	274	127	3.4	SW	15.6*	WSW	15	9	1	21	7.1	
CHATTANOOGA	204	994.1	1022.7	8.3	- 1.1	3.6	-1.8	21.7	26	-15.6	10	0	19	- 0.6	68	198	55	40	16	1	132	76	3.7	SSW	16.5	W	15	7	3	21	7.2	41
KNOXVILLE	290	985.7	1022.4	7.8	- 2.2	2.8	-2.2	21.1	26	-17.2	11+	0	19	- 2.2	68	158	34	38	15	0	384	229	4.3	WSW	23.7	SW	6	8	1	22	7.3	38
MEMPHIS	80	1007.8	1023.1	7.2	- 2.8	2.3	-3.2	18.9	26	-20.0	12	0	22	- 1.7	68	106	- 48	43	12	2	127	102	3.8	N	16.1	SE	14	7	7	17	6.6	48
MEMPHIS U	83			7.2	- 1.7	2.7	-2.9	18.9	26	-18.3	10	0	20			151	4	92	13		114	102										
NASHVILLE	176	1001.7	1022.5	7.2	- 3.3	1.8	-2.6	22.8	26	-18.9	11+	0	25	- 1.7	68	165	26	52	14	1	56	51	3.9	S	16.1	SW	15	8	3	20	7.0	43
OAK RIDGE	276	988.6		7.2	- 2.8	2.2	-2.2	20.6	26	-18.3	11	0	22			151	0	29	15	0	221	178	2.1		17.9Y		6	8	1	22	7.3	
TEXAS																																
ABILENE	536	959.2	1022.4	11.7	- 3.3	4.3	-2.7	23.9	31	-14.4	11	0	24	- 5.0	58	2	- 21	1	3	1	10	T	4.8	S	15.6	N	5	11	6	14	5.6	64
AMARILLO	1099	891.2	1021.4	7.8	- 7.8	- 0.2	-2.5	20.6	31	-22.2	11	0	28	- 8.9	60	12	- 5	6	6	0	58	51	6.8	N	20.1	N	4	10	8	13	5.6	71
AUSTIN	182	1000.5	1023.4	13.9	1.1	7.5	-2.7	25.6	31	-10.6	12+	0	13	- 1.1	63	14	- 45	7	9	1	T	T	4.3	N	21.0	N	5	9	7	15	6.3	46
BROWNSVILLE	5	1019.3	1022.1	19.4	7.2	13.3	-3.1	26.1	4	- 7.2	12	0	4	8.3	76	15	- 19	8	6	0	0	0	5.2	NNW	16.1	N	10	9	5	17	6.3	48
CORPUS CHRISTI	13	1021.3	1022.8	17.2	3.3	10.3	-3.8	27.2	14	-10.0	12	0	6	3.3	67	6	- 36	2	9	0	0	0	5.7	N	17.0	N	5	7	5	19	6.8	52
DALLAS	147	1004.1	1023.8	11.1	- 1.7	4.7	-3.0	23.3	30	-13.3	11+	0	21	- 2.8	66	34	- 25	9	9	1	81	51	5.1	S	18.8	N	5	8	12	11	5.8	56
DEL RIO U	292			14.4	1.7	8.2	-2.8	26.1	4	-10.6	12	0	10			4	- 17	2	5	1	T	0										
EL PASO	1194	889.3	1020.7	12.2	- 2.8	4.7	-1.9	20.0	8	-22.2	11	0	21	- 5.6	54	24	12	13	6	0	41	25	3.1	NNE	23.2	N	4	14	10	7	4.2	80
FORT WORTH	166	1001.7	1023.4	11.1	- 2.2	4.2	-3.3	23.3	31+	-13.9	11	0	22	- 2.2	68	25	- 26	6	10	0	66	51	5.9	S	19.2*	N	9	10	9	12	5.7	
GALVESTON U	2			13.9	6.1	9.9	-2.8	21.1	31	- 7.8	11+	0	4			31	- 56	11	11		0	0	6.2		15.6	NW	5					52
GALVESTON	2	1020.5	1023.0	13.3	5.6	9.4	-3.0	20.0	4	- 8.3	11	0	4	4.4	74	22	- 73	8	9	0	0	0	5.3	N				10	3	18	6.5	
HOUSTON U	12			16.1	5.6	10.8	-1.7	26.7	31	- 6.7	11+	0	4			26	- 68	17	10		T	0										
HOUSTON	15	1020.3	1023.6	16.1	3.3	9.6	-2.9	26.7	25	- 8.3	12+	0	7	4.4	73	44	- 52	18	11	1	0	0	5.5	NNW				9	3	19	6.8	45
LAREDO	152	1006.8	1022.6	17.2	3.9	10.7	-3.6	27.8	4	- 7.8	12	0	6	0.6	57	8	- 20	3	6	0	0	0	4.3	NNW	16.1*	NW	5	9	9	13	5.7	
LUBBOCK	988	907.1	1022.6	9.4	- 6.7	1.3	-2.7	20.6	31+	-20.0	11	0	29	- 6.7	63	7	- 11	5	6	0	8	T	6.3	N	20.6*	N	5	11	10	10	5.4	
MIDLAND	870	919.4	1021.1	11.7	- 3.9	3.9	-2.7	21.7	30+	-22.2	11	0	22	- 5.6	58	4	- 16	3	3	0	41	51	4.7	S	13.9*	NW	4	10	9	12	5.5	
PORT ARTHUR	5	1020.8	1022.5	15.0	2.2	8.5	-3.2	25.0	31	-10.0	12	0	11	4.4	77	53	- 54	13	9	1	T	T	4.8	N	21.9	NW	14	11	2	18	6.5	46
SAN ANGELO	580	953.2	1022.5	13.3	- 2.8	5.3	-3.0	24.4	31	-13.3	11	0	25	- 5.0	55	1	- 24	0	2	0	T	T	4.4	S	12.5*	NE	9+	13	9	9	4.9	

See footnotes at end of table

CLIMATOLOGICAL DATA
METRIC UNITS

JANUARY 1962

State and Station	Elevation (ground)	Pressure: Station Ø	Pressure: Sea level	Temperature: Average maximum	Temperature: Average minimum	Temperature: Average	Temperature: Departure from normal	Temperature: Highest	Temperature: Date	Temperature: Lowest	Temperature: Date	Temperature: No. of days: Max 32.2 °C or above	Temperature: No. of days: Min. 0 C or lower	Average dew point	Average relative humidity	Precipitation: Total	Precipitation: Departure from normal	Precipitation: Greatest in 24 hours	Precipitation: No. of days: .25 mm or more	Precipitation: No. of days: With thunderstorms	Snow, Sleet: Total	Snow, Sleet: Maximum depth on ground	Wind: Average speed	Wind: Prevailing direction	Wind: Fastest mile (1.6 kilometers): Speed	Wind: Fastest mile: Direction	Wind: Fastest mile: Date	No. of days (sunrise to sunset): Clear, 0-3	Partly cloudy, 4-7	Cloudy, 8-10	Sky cover, tenths (sunrise to sunset)	Possible sunshine
	M.	Mb.	Mb.	C.	C	C	C.	C.		C.				C.	%	Mm.	Mm.	Mm.			Mm.	Mm.	M.p.s.		M.p.s.							%
TEXAS																																
SAN ANTONIO	241	996.9	1022.8	14.4	0.6	7.7	-3.4	24.4	31+	-12.2	12	0	12	0.0	63	12	- 32	5	9	0	0	0	4.3	N	16.5	N	9	11	6	14	6.0	48
VICTORIA	32	1018.2		16.1	2.2	9.2	-3.8	25.0	4	- 8.9	12	0	9			12	- 48	3	8	0	0	0	5.6		24.1Y	N	9	8	9	14	6.4	
WACO	152	1001.5	1023.5	13.3	- 0.6	6.1	-2.8	26.1	30	-10.6	11+	0	19	- 1.1	68	17	- 41	6	10	1	T	T	6.3	NNW	20.6*	NNW	14+	12	6	13	5.7	
WICHITA FALLS	303	984.7	1023.1	10.0	- 5.0	2.5	-2.9	23.3	30	-18.3	11	0	24	- 5.0	63	7	- 22	3	5	0	30	25	4.7	S	6.1*	N	5	12	4	15	5.4	
UTAH																																
MILFORD	1533	848.6		1.1	-15.0	- 7.1	-2.9	15.0	8	-30.0	24	0	31			10	- 5	6	5	0	201	152						10	11	10	5.0	
SALT LAKE CITY	1286	874.4	1029.6	- 1.7	-11.1	- 6.4	-4.3	10.0	7	-25.6	23	0	30	- 8.9	83	21	- 13	14	7	1	396	229	3.1	N	21.9	S	20	6	6	19	7.1	43
WENDOVER	1291	877.4		0.0	- 8.9	- 4.4	-1.7	15.0	7+	-19.4	23	0	29			7	- 1	6	4	0	71	51						9	3	19	6.5	
VERMONT																																
BURLINGTON	101	1002.7		- 2.8	-15.6	- 9.2	-1.5	7.2	15	-23.9	31+	0	31			27	- 22	11	10	0	175	356	4.6		21.0	S	16	8	4	19	6.9	59
VIRGINIA																																
LYNCHBURG	289	995.7		6.1	- 3.3	1.3	-1.8	17.8	25	-15.0	11	0	22			89	5	28	12	0	439	178	3.8		13.4	W	15+	5	12	14	6.8	38
NORFOLK	8	1019.7	1021.7	8.9	- 1.1	3.8	-1.3	19.4	6	-11.1	13	0	20	0.0	76	141	57	37	14	0	302	152	5.5	SW	19.2	NE	1	8	3	20	7.0	45
RICHMOND	49	1015.5	1022.1	8.3	- 2.8	2.6	-1.2	21.1	25	-15.6	11	0	21	- 2.2	74	151	63	84	11	1	523	178	3.5	SW	13.4	SW	15	6	5	20	7.3	37
ROANOKE	358	977.6	1021.6	6.7	- 2.8	2.1	-1.3	18.9	25	-16.7	11	0	23	- 5.0	59	65	- 15	25	12	0	211	76	4.2	SW	15.2*	SW	3	9	7	15	6.5	
WASHINGTON																																
OLYMPIA	58	1018.6	1026.0	6.7	- 1.7	2.5	-0.9	15.6	31	-15.6	21	0	23	- 0.6	83	82	-118	30	14	0	53	51	3.4	SW	13.0*	SW	3	2	7	22	8.2	
SEATTLE TACOMA	122	1010.5	1025.0	6.7	0.6	3.6	0.1	13.9	31	-10.6	21	0	15	- 0.6	78	62	- 84	37	12	0	25	T	4.4	SSW	15.6*	SSW	14	4	4	23	7.8	
SEATTLE			1025.3											0.0	77								2.5	SSE								
SEATTLE U	4			7.8	2.8	5.3	0.2	12.2	28+	- 6.7	21	0	6			64	- 68	30	12		T	0			19.7	SW	3					28
SPOKANE	718	955.6	1027.2	- 1.7	- 8.9	- 5.2	-1.5	8.3	29+	-25.0	21+	0	26	- 8.9	73	35	- 27	12	11	0	310	203	3.7	NNE	13.4	SW	25	3	6	22	8.1	39
STAMPEDE PASS R	1206	883.8		0.0	- 5.6	- 3.0	1.7	13.3	31	-18.9	19	0	24			322	17	70	17	0	940	1905						3	3	25	8.2	
TATOOSH ISLAND	31	1021.3	1024.4	7.2	3.9	5.4	-0.1	11.7	1	- 3.9	19	0	4	2.8	83	181	- 94	39	17	0	T	0	8.2	ENE	23.2	S	26	4	3	24	7.9	30
WALLA WALLA U	289	989.8		4.4	- 2.8	1.0	0.3	16.7	3	-17.2	21	0	20			16	- 32	7	8	0	64	51	2.2	E#	16.5	W	7	1	8	22	8.5	28
YAKIMA	323	987.1	1027.7	4.4	- 6.7	- 1.2	1.3	16.1	7	-17.2	22	0	27	- 6.1	74	4	- 26	1	4	0	56	25	2.7	WNW	19.7*	WSW	25	3	4	24	8.0	
WEST INDIES																																
SAN JUAN P.R. U	14			26.7	21.7	24.3	0.4	30.6	2	20.0	31	0	0			106	1	27	24													
SAN JUAN P.R.	5	1015.6	1018.7	27.8	20.6	24.0	0.4	30.6	3+	16.1	31	0	0	20.0	81	108	- 12	32	24	0	0	0	3.4	ENE	15.2	E	22	4	24	3	5.1	62
SWAN ISLAND	9	1015.4		28.3	23.3	26.0	0.3	30.0	15+	21.1	27	0	0			98	11	29	13	0	0	0						1	22	8	6.1	
WEST VIRGINIA																																
CHARLESTON	286	984.9	1021.8	6.1	- 4.4	0.9	-2.2	22.8	26	-22.8	11	0	22	- 5.0	53	71	- 38	24	13	1	99	51	3.3	WSW	15.6*	WSW	15	5	7	19	7.6	
HUNTINGTON U	252	990.4	1021.7	6.1	- 4.4	0.8	-2.3	23.3	26	-20.6	11	0	24	- 5.0	58	67	- 31	25	12	0	46	25	3.2	SW	13.0*	SW	15	6	6	19	7.6	
PARKERSBURG U	189			4.4	- 6.1	- 0.9	-2.3	21.1	26	-21.1	11	0	25			67	- 18	23	10	1	142	76	3.0		17.9	W	26					35
WISCONSIN																																
GREEN BAY	208	995.0	1019.1	- 6.7	-16.1	-11.4	-2.7	4.4	26	-30.6	18	0	31	-16.1	70	32	3	10	12	0	401	381	5.0	SW	14.8	W	29	6	5	20	7.1	35
LA CROSSE	199	994.5		- 6.1	-15.0	-10.7	-2.1	6.1	3	-26.7	18	0	31	-15.6	67	5	- 25	3	5	0	74	127	5.4	S	20.1*	NW	29	4	9	18	7.4	
MADISON	262	982.7	1019.8	- 6.7	-15.0	-10.9	-3.1	4.4	3	-27.8	18	0	31	-15.0	73	28	- 7	13	13	0	254	279	4.6	WNW	14.3	N	30	4	8	19	7.4	44
MILWAUKEE	204	993.9	1020.5	- 5.6	-13.9	- 9.7	-3.4	3.9	3	-24.4	18+	0	31	-13.3	74	63	17	30	13	0	561	356	5.3	W	15.6	N	6	7	7	17	6.7	43
WYOMING																																
CASPER	1621	838.1	1024.4	- 3.9	-15.0	- 9.2	-4.4	8.9	31	-34.4	9	0	31	-14.4	66	22	7	9	8	0	411	203	6.9	SW	15.6*	SSW	11	10	6	15	6.0	
CHEYENNE	1867	811.7	1022.7	0.0	-14.4	- 7.2	-3.8	13.3	3	-30.0	19	0	31	-15.0	55	17	4	12	7	0	330	279	7.0	WNW	20.1	NW	6	12	8	11	5.3	64
LANDER	1696	837.1		- 6.7	-19.4	-13.0	-5.9	8.3	27	-35.6	22	0	31	-19.4	61	34	22	19	5	0	673	533	2.1	SE#	12.1	SW	31	9	7	15	5.7	72
SHERIDAN	1202	887.6	1018.2	- 2.8	-15.0	- 8.9	-2.9	12.8	31	-31.1	19	0	31	-13.3	68	18	2	10	10	0	244	178	3.4	NW	28.2	NW	6	6	11	14	6.4	62

Data from airport unless otherwise specified. U indicates Urban, R indicates Rural, sites.
* Data entered in column "Fastest Mile" is the fastest mile observed. This station is not equipped with automatic wind recording instrument.
A Maximum hourly average.
+ And also on an earlier date or dates.
Ø Station pressures apply to elevations shown in the "Elevations - Station Pressure" table of the annual issue of this publication.
B Number of days maximum 21.1°C. or above for Alaskan Stations.
# Wind direction to 8 compass points only.
Y Peak Gust.
V Sun below horizon January 1-24, inclusive.
X Sun below horizon January 1-16, inclusive.

See footno

Data in this table is obtained by conversion from data in the English Units table.

HEATING DEGREE DAYS

(Base 65°F.)

JANUARY 1962

State and station	Current season		Normals
	This month	Period July through this month	July through this month
ALABAMA			
Birmingham	718	1671	1753
Huntsville	806	1997	
Mobile	511	1085	1039
Montgomery	564	1377	1381
ALASKA			
Anchorage	1593	7067	6419
Annette	893	3890	3964
Barrow	2089	10693	10875
Barter Island	2140	11017	
Bethel	2039	8182	7363
Cold Bay	1301	5592	5263
Cordova	1191	5916	5430
Fairbanks	2258	9543	8693
Juneau	1182	5327	5169
King Salmon	1761	7324	6505
Kotzebue	2070	9086	8850
McGrath	2318	9551	8663
Nome	1910	8415	7808
St. Paul	1388	6243	5753
Shemya	982	5234	
Yakutat	1179	5474	5265
ARIZONA			
Flagstaff	1168	4319	4198
Phoenix (U)	385	1002	980
Phoenix	414	1086	1119
Prescott	899	2774	2641
Tucson	491	1308	1123
Winslow	1278	3590	2904
Yuma	253	655	682
ARKANSAS			
Ft. Smith	952	2314	2048
Little Rock	857	2131	1898
Texarkana	756	1832	1513
CALIFORNIA			
Bakersfield	687	1725	1380
Bishop	819	2611	2515
Blue Canyon	708	2727	2899
Burbank	278	865	976
Eureka (U)	607	2775	2585
Fresno	724	1886	1640
Long Beach	314	847	
Los Angeles (U)	240	678	779
Los Angeles	275	842	1075
Mt. Shasta (R)	997	3339	3324
Oakland	514	1659	1790
Point Arguello (R)	453	1967	
Red Bluff	568	1656	1559
Sacramento (U)	642	1705	1594
Sacramento	709	1855	1714
Sandberg (R)	748	2482	2184
San Diego	257	711	813
San Francisco (U)	398	1641	1709
San Francisco	541	1761	1890
San Jose (U)	461	1366	1348
Santa Maria	444	1598	1566
COLORADO			
Alamosa	1539	5407	5112
Colorado Springs	1324	4326	3513
Denver	1411	4209	3489
Grand Junction	1295	3957	3564
Pueblo	1278	3889	3383
CONNECTICUT			
Bridgeport	1094	2952	3169
Hartford	1225	3454	3458
Middletown	1178	2870	
New Haven	1114	3024	3276
DELAWARE			
Wilmington	1042	2857	2824
DIST. OF COLUMBIA			
Washington (U)	1014	2431	2488
Washington	932	2470	2523
FLORIDA			
Apalachicola (U)	408	791	827
Daytona Beach	259	492	533
Fort Myers	96	196	250
Jacksonville	363	761	804
Key West	24	44	46
Lakeland (U)	175	344	412
Miami	58	122	118
Miami Beach	41	79	80
Orlando	176	346	410
Pensacola (U)	463	945	912
Tallahassee	433	999	991
Tampa	175	332	424
West Palm Beach	69	153	154
GEORGIA			
Athens	710	1779	1738
Atlanta	736	1866	1757
Augusta	597	1508	1356
Columbus	610	1443	1514
Macon	577	1360	1321
Rome	812	2090	1956
Savannah	502	1202	1099
Thomasville (U)	442	971	945
IDAHO			
Boise	1354	3963	3509
Idaho Falls 46W (R)	1699	5264	4991
IDAHO (Cont'd.)			
Idaho Falls 42NW(R)	1816	5603	5239
Lewiston	1013	3476	3307
Pocatello	1526	4567	4060
ILLINOIS			
Cairo (U)	985	2481	2321
Chicago (Midway)	1450	3747	3595
Chicago (O'Hare)	1489	3971	
Moline	1510	3960	3730
Peoria	1501	3989	3563
Rockford	1559	4172	
Springfield	1381	3554	3359
INDIANA			
Evansville	1131	2914	2654
Ft. Wayne	1332	3725	3582
Indianapolis	1272	3403	3263
South Bend	1413	3764	3694
IOWA			
Burlington	1476	3892	3605
Des Moines	1609	4362	3802
Dubuque	1612	4470	4215
Sioux City	1560	4413	4156
Waterloo	1650	4452	4193
KANSAS			
Concordia (U)	1275	3647	3192
Dodge City	1188	3404	3027
Goodland	1295	4069	3676
Topeka	1352	3678	3152
Wichita	1213	3270	2786
KENTUCKY			
Lexington	1081	2834	2892
Louisville	1065	2797	2666
LOUISIANA			
Alexandria	641	1537	
Baton Rouge	542	1199	1039
Lake Charles	525	1093	1009
New Orleans (U)*	451		
New Orleans	467	972	848
Shreveport	690	1600	1398
MAINE			
Caribou	1713	4894	5663
Greenville (U)	1694	4919	
Portland	1369	3966	4220
MARYLAND			
Baltimore (U)	939	2422	2417
Baltimore	1004	2772	2773
Frederick	1072	3010	2842
MASSACHUSETTS			
Blue Hill Obs. (R)	1208	3409	
Boston	1118	3019	3128
Nantucket	1018	2841	3098
Pittsfield	1363	4011	4291
Worcester	1280	3736	
MICHIGAN			
Alpena	1514	4462	4320
Detroit (City AP)	1318	3477	3536
Detroit (M. Wayne Co.)	1342	3614	
Detroit (Willow Run)	1346	3739	3614
Escanaba (U)	1598	4585	4686
Flint	1455	3953	3964
Grand Rapids	1409	3789	3927
Lansing	1459	3960	
Marquette (U)	1568	4568	4602
Muskegon	1345	3635	3836
S. Ste. Marie	1687	4839	5162
MINNESOTA			
Duluth	1912	5624	5600
Internat. Falls	2109	6085	6145
Minneapolis	1794	4913	4577
Rochester	1731	4960	4716
St. Cloud	1818	5259	5173
MISSISSIPPI			
Jackson	690	1628	1417
Meridian	671	1637	1517
Vicksburg (U)	691	1601	1282
MISSOURI			
Columbia	1289	3354	3064
Kansas City	1280	3327	2960
St. Joseph	1423	3845	3223
St. Louis (RFC)	1144	2879	2686
St. Louis	1242	3143	2822
Springfield	1169	3073	2842
MONTANA			
Billings	1402	4586	4072
Butte	1806	6033	5604
Glasgow	1643	5494	5141
Great Falls	1426	4875	4270
Havre	1513	5388	4811
Helena	1528	5084	4818
Kalispell	1488	5260	4720
Miles City	1497	4949	4584
Missoula	1541	5210	4684
NEBRASKA			
Grand Island	1391	4203	3761
Lincoln (U)	1372	3957	3490
Norfolk	1498	4453	4161
North Platte	1333	4328	3852
Omaha	1444	4094	3675
Omaha N. Omaha AP	1507	4329	
Scottsbluff	1361	4326	3925
Valentine	1441	4469	4091
NEVADA			
Elko	1424	4535	4241
Ely	1381	4694	4232
Las Vegas	635	1902	1622
Reno	1178	3803	3474
Tonopah	1177	3672	3323
Winnemucca	1351	4150	3765
NEW HAMPSHIRE			
Concord	1369	3818	4299
Mt. Washington Obs. (R)	1942	7255	
NEW JERSEY			
Atlantic City	977	2677	
Atlantic City (U)	919	2281	2502
Newark	1052	2759	2951
Trenton (U)	1031	2780	2856
NEW MEXICO			
Albuquerque	1030	3003	2727
Clayton	1104	3460	2986
Raton	1215	3971	3737
Roswell	964	2677	2202
Silver City	896	2496	
NEW YORK			
Albany	1327	3683	3901
Binghamton	1392	3999	4193
Buffalo	1310	3567	3695
New York (U)	997	2582	2766
New York (LaGuardia)	1006	2620	2724
Rochester	1296	3548	3765
Schenectady	1299	3610	3965
Syracuse	1262	3482	3594
NORTH CAROLINA			
Asheville (U)	851	2408	2427
Cape Hatteras (R)	579	1461	1315
Charlotte	787	1936	1978
Greensboro	898	2334	2319
Raleigh	810	2159	2036
Wilmington	609	1530	1402
Winston-Salem	876	2229	2255
NORTH DAKOTA			
Bismarck	1681	5322	5254
Devils Lake (U)	1920	5923	5769
Fargo	1880	5439	5399
Grand Forks CAA	1925	5615	
Pembina	2049	5960	
Williston (U)	1681	5434	5271
OHIO			
Akron	1265	3477	3464
Cincinnati (U)	1056	2741	2653
Cincinnati	1132	2875	3028
Cincinnati Obs.	1123	2973	2850
Cleveland	1264	3371	3313
Columbus	1249	3386	3233
Columbus (U)	1183	3133	3046
Dayton	1227	3343	3222
Mansfield	1284	3569	
Sandusky (U)	1247	3246	3238
Toledo	1323	3756	3573
Youngstown	1319	3644	3437
OKLAHOMA			
Oklahoma City	1006	2567	2282
Tulsa	1072	2719	2238
OREGON			
Astoria	765	2991	2733
Burns (U)	1359	4446	4103
Eugene	845	2881	2770
Meacham	1242	4569	4348
Medford	1032	3156	2711
Pendleton	1006	3349	3161
Portland (U)	775	2483	2418
Portland	811	2750	2673
Roseburg	857	2792	2603
Salem	857	2916	2640
Sexton Summit (R)	863	3510	3278
PENNSYLVANIA			
Allentown	1193	3347	3337
Erie	1266	3340	3499
Harrisburg	1139	3037	3022
Philadelphia (U)	953	2464	2557
Philadelphia	1078	3048	2777
Pittsburgh (U)	1100	2913	2882
Pittsburgh	1197	3294	3384
Reading (U)	1072	2811	2888
Scranton	1236	3531	3413
Williamsport	1198	3319	3382
RHODE ISLAND			
Block Island	1052	2868	2989
RHODE ISLAND (Cont'd.)			
Providence	1123	3108	3346
SOUTH CAROLINA			
Charleston (U)	505	1100	1103
Charleston	553	1342	1250
Columbia	620	1572	1544
Florence	629	1562	1603
Greenville	729	1810	1873
Spartanburg	751	1896	1881
SOUTH DAKOTA			
Huron	1675	4968	4626
Pierre	1546	4589	
Rapid City	1414	4405	4219
Sioux Falls	1616	4734	4637
TENNESSEE			
Bristol	906	2439	2506
Chattanooga	813	2075	2105
Knoxville	862	2275	2214
Memphis (U)	866	2113	1858
Memphis	887	2200	1973
Nashville	916	2330	2150
Oak Ridge	891	2340	2503
TEXAS			
Abilene	777	1935	1721
Amarillo	1026	2859	2651
Austin	598	1293	1130
Brownsville	292	468	437
Corpus Christi	448	795	695
Dallas	748	1753	1477
Del Rio (U)	559	1162	
El Paso	754	1924	1756
Ft. Worth	781	1802	1512
Galveston (U)	461	847	758
Galveston	489	868	780
Houston (U)	417	774	843
Houston	480	967	903
Laredo	422	777	576
Lubbock	942	2508	2256
Midland	796	1980	1705
Port Arthur	543	1080	993
San Angelo	719	1805	1410
San Antonio	586	1179	1062
Victoria	501	971	760
Waco	674	1526	1311
Wichita Falls	875	2163	1937
UTAH			
Milford	1407	4220	3828
Salt Lake City	1373	4054	3473
Wendover	1265	3860	
VERMONT			
Burlington	1529	4297	4385
VIRGINIA			
Lynchburg	945	2514	2471
Norfolk	800	2052	1986
Richmond	875	2439	2360
Roanoke	904	2492	2472
WASHINGTON			
Olympia	878	3320	3122
Seattle (U)	722	2531	2529
Seattle	781	2730	2756
Seattle-Tacoma	821	2964	3025
Spokane	1309	4387	3993
Stampede Pass (R)	1182	5248	5111
Tatoosh Island (R)	712	3329	3193
Walla Walla	1004	3323	
Walla Walla (U)	963	3145	2989
Yakima	1081	3779	3657
WEST VIRGINIA			
Charleston	965	2712	2607
Huntington (U)	972	2583	2434
Parkersburg (U)	1068	2842	2773
WISCONSIN			
Green Bay	1657	4722	4641
La Crosse	1613	4508	4459
Madison	1630	4593	4269
Milwaukee	1561	4262	3999
WYOMING			
Casper	1537	4966	4345
Cheyenne	1419	4733	4137
Lander	1746	5583	4833
Sheridan	1515	4086	4505

Data from airport unless otherwise specified.
U indicates Urban, R indicates Rural, sites.

* Observations began January 1, 1962, Audubon Park.

STORM SUMMARY

JANUARY 1962

STATE	TORNADOES					HAILSTORMS				WINDSTORMS				LIGHTNING				‡ HEAVY SNOWSTORMS AND BLIZZARDS				# ICE STORMS				Ø ALL OTHER			
	NUMBER	DAYS	DEATHS	INJURIES	†DAMAGE	DEATHS	INJURIES	†DAMAGE		DEATHS	INJURIES	†DAMAGE		DEATHS	INJURIES	†DAMAGE		DEATHS	INJURIES	†DAMAGE		DEATHS	INJURIES	†DAMAGE		DEATHS	INJURIES	†DAMAGE	
								PROPERTY	CROPS			PROPERTY	CROPS			PROPERTY	CROPS			PROPERTY	CROPS			PROPERTY	CROPS			PROPERTY	CROPS
Alabama	3	1	0	0	5																					4	0	6	6
Alaska *																													
Arizona *																													
Arkansas *																													
California										3	10	4	0	0	1	4	0	6	40	6	0					28	80	5	0
Colorado										0	0	3	0					8	M	6	0								
Connecticut *																													
Delaware *																													
Florida	2	1	1	30	6																								
Georgia	3	2	0	0	4																	0	0	4	0	0	0	5	0
Hawaii *																													
Idaho																			1								9		
Illinois N																													
Indiana																										0	?	4	0
Iowa *																													
Kansas *																													
Kentucky *																													
Louisiana																										0	0	8	7
Maine										0	0	5	0									0	0	4	0				
Maryland										0	0	4	0																
Massachusetts										0	0	5	0									0	0	4	0	0	0	4	0
Michigan *																													
Minnesota *																													
Mississippi																										1	4	7	7
Missouri *																													
Montana										0	1	5	0																
Nebraska *																													
Nevada N																													
New Hampshire										0	0	4	0									0	0	4	0				
New Jersey										0	0	4	0																
New Mexico *																													
New York										1		6						0		4		0		5		0		4	
North Carolina										0	1	4	0					0	0	4	0					0	0	4	0
North Dakota *																													
Ohio *																													
Oklahoma										0	0	4	0	0	0	3	0					4	2	4	0	2	0	6	0
Oregon																						1	8	4	2	1	4	4	4
Pennsylvania	1	1	0	0	5					0	1	5	0																
Puerto Rico *																													
Rhode Island																										0	0	4	0
South Carolina	1	1	0	1	3													0	0	4	0	0	0	4	0				
South Dakota *																													
Tennessee *																													
Texas																										2	?	7	7
Utah												4						1		3									
Vermont	1	1	0	0	0					0	0	4	0									0	0	4	0				
U. S. Virgin Is. *																													
Virginia	1	1	0	0	?																								
Washington *																													
West Virginia *																													
Wisconsin *																													
Wyoming *																													

* No occurrence of storms or unusual weather phenomena.
‡ Includes heavy sleet storm.
# Freezing drizzle and freezing rain, commonly known as glaze.
ø For breakdown of "All Others", and for detailed listing of other storms, see the U. S. Weather Bureau monthly publication STORM DATA.
N No report received by printing deadline.
M Many

† Storm damages are placed in categories varying from 1 to 9 as follows:

1	Less than $50
2	$50 to $500
3	$500 to $5,000
4	$5,000 to $50,000
5	$50,000 to $500,000
6	$500,000 to $5,000,000
7	$5,000,000 to $50,000,000
8	$50,000,000 to $500,000,000
9	$500,000,000 to $5,000,000,000

GENERAL SUMMARY OF RIVER AND FLOOD CONDITIONS

JANUARY 1962

The severe flooding which began in the East Gulf of Mexico Drainage during December continued into January. Additional rains toward the end of the month caused additional flooding on the Tombigbee and Warrior Rivers, but the flooding was not as severe as in December. Record flooding occurred on the Rocky River at Norwood, N. C. One of the worse ice jams of recent years occurred on the Kansas River in Kansas causing considerable damage. Numerous ice jams were reported on widely scattered streams from the Continental Divide eastward to the Atlantic coast. Flooding reported elsewhere was mostly light to moderate.

ST. LAWRENCE DRAINAGE

Lake Erie. --Thawing temperatures and 0.37 inch of rainfall on the 26th caused Cazenovia Creek to overflow its banks during the night and on the 27th. Hundreds of basements were flooded on both sides of the creek with as much as 6 to 7 feet of water in some basements. As much as 2 feet of water covered some streets. Considerable property damage was caused by ice flows in the flooded areas. Dynamite was used to blast ice jams in the creek to prevent ice from jamming under bridges. Tannery Creek in East Aurora and other small streams also went over their banks. As of the end of the month the ice situation in Cazenovia Creek was still potentially dangerous.

Minor flooding occurred along two tributaries of the Maumee River during January. The St. Marys River was in flood at Decatur, Ind., from January 26 to February 1, cresting 3.2 feet above flood stage on the 28th. The Blanchard River was out of its banks at Findlay, Ohio, on the 27th, cresting 3.15 feet above flood stage. Flooding did not reach damaging proportions at either Decatur, Ind., or Findlay, Ohio. Some flooding of low farm ground occurred with some damage to winter wheat plantings, but was not considered serious as the flooding was not prolonged.

Lake Ontario. --A major ice jam occurred in the upper Niagara River in New York on the 10th, causing considerable flooding over Cayuga Island and reduced power output in the Moses Hydroelectric Plant by 80 percent for several days. The ice jam raised the Little Niagara River 4 feet above normal level. High water spread over the Niagara Parkway into Prospect Park. Water level in the Erie Barge Canal rose above its channel at several points in the city of Tonawanda on the 11th. Minor flooding occurred on Cayuga Island on the 20th.

ATLANTIC SLOPE DRAINAGE

Minor flooding occurred on the Millstone and Raritan Rivers in New Jersey on the 7th and 8th from heavy rainfall on the 6-7th. The rainfall averaged 1.86 inches over the central and northern sections. The rainfall approached record proportions for a 24-hour period for January throughout the State. Antecedent conditions were dry, but because of the time of the year, rainfall amounts were sufficient to cause the Raritan and Millstone Rivers to overflow, and the Assunpink Creek to nearly reach flood stage.

An ice gorge on the East Branch of the Delaware River caused a near bankfull stage at Fishs Eddy, N. Y., on the 7th.

Moderate to locally heavy rains averaging 1 to 3 inches fell over southern Virginia and eastern North Carolina during the period from the 5th to the 7th. Sharp rises occurred on the Roanoke River reaching 1 foot above bankfull stage at Randolph, Va. Stages in the lower portions of the Roanoke Basin were controlled by the Kerr Dam holding below bankfull, except reaching about 1 foot above bankfull at Williamston, N. C., during the month. Sharp rises occurred also on the Tar River, but extremely cold weather set in and this slowed the rises so that crests were delayed about 24 hours and were somewhat lower with crests 1 to 2 feet above bankfull. On the Neuse River, crests ranged from 2 to 6 feet above bankfull stage. The extremely cold weather delayed the crests from 1 to 4 days. On the Cape Fear River, crests ranged from 4 to 12 feet above bankfull stage. Additional rainfall ranging from 1 to 2 inches fell over all river basins in eastern North Carolina on the 28th and 29th. Moderate rises occurred in the Roanoke, Dan, and Tar Basins, but no additional flooding resulted. Along the Neuse River, stages reached near bankfull stage at Kinston and from 2 to 3 feet above bankfull at Neuse, Smithfield, and Goldsboro. Along the Cape Fear River, near bankfull stage was recorded at Fayetteville, N. C., and about 6 feet above flood stage at Lock #3 and Elizabethtown, N. C. No damage was reported from areas of minor flooding.

Heavy general rains of 3 to 4.5 inches on the 6th coupled with melting of scattered snow accumulations caused an extremely rapid rise on the Rocky River, and a record flood at the gaging station at Norwood, N. C., which was opened in 1956. The rise was from a stage of near 5 feet during the early morning of the 6th, to 21 feet at 2 p.m. the same day, to a crest of 31 feet at 8 a.m. on the 7th. It was back in its banks by early morning of the 9th. A considerable flood resulted along the Pee Dee River in South Carolina. The rise upstream was very rapid. The crest at Cheraw, S. C., was estimated near 39.3 feet during the night of the 8th, about 9.3 feet above flood stage. A sizeable area of farm and grazing land was flooded. This flood was not exceptional; approximately the same height was reached in February 1960. However, it has been exceeded only about 10 times in the last 70 years. A moderate flood followed downstream in the Peedee, S. C., area where the crest at this gaging station was 4 feet over flood stage on the 14th. A second flood of much lesser proportions followed on these same streams near the end of the month. No flooding occurred at other gaging stations. Only minor damages resulted from the flooding.

Moderate to heavy rains of 1.5 to 4 inches on the 5th and 7th caused flooding on the Saluda, Broad, and Congaree Rivers in South Carolina between the 7th and 9th. Widespread flooding occurred in the lowlands and swamplands below Columbia and Camden, S. C. Winter pasture suffered considerable loss from this flooding. There was widespread disruption of logging and pulpwood operations due to swampland flooding. Losses were light along the Saluda and Broad Rivers. Another period of rain amounting to 1.5 to 3 inches over the central part of South Carolina and adjacent North Carolina from the 27th to the 29th caused sharp rises on some streams, with some light flooding on the Broad River in South Carolina.

EAST GULF OF MEXICO DRAINAGE

Heavy rainfall on the 6th, ranging from 1 to 5 inches, caused flooding on the Apalachicola River at Blountstown, Fla., from the 7th to the 15th. Frequent rains later in the month caused additional flooding between the 23d and 25th and from the 27th to the 31st. No damages resulted from the overflows since only wooded areas were affected. Logging operators shifted their workers and made good use of the high water for floating logs downstream. No losses resulted from suspended operations.

Minor flooding occurred on the Choctawhatchee River at Caryville, Fla., between the 8th and 10th from the heavy 24-hour rainfall reported on the morning of the 6th. At Dothan, Ala., 6.3 inches of rain was recorded in the 6-hour period ending at 12:30 a.m. on the 6th. This excessively heavy rainfall caused considerable flash flooding and damages in the Dothan area. Almost daily rainfall during the period from the 22d to the 29th caused minor flooding on the Oostanaula, Coosa, and Cahaba Rivers in Alabama.

Stages on the lower Tombigbee in Alabama were above flood stage when the month began, but were all receding from the severe flood of December 1961. Moderate rains on the 5th and 6th caused very minor flooding on the upper reaches of the Tombigbee in Mississippi and prolonged runoff on the lower river. Additional rain of about 2 inches on the 27th and 28th caused additional flooding on the Tombigbee and on the Warrior Rivers. Flooding was not nearly as severe as it was in December, and no new areas were inundated. Losses were not severe at any station, and many areas had no damage.

Above flood stages on the Pearl River at Jackson, Miss., and from below Columbia, Miss., to the coast persisted throughout January 1962. These conditions were increased by heavy rainfall periods scattered throughout January that provided increments of runoff sufficient for general flooding on the Pearl from above Edinburg, Miss., to the coast; and brief flooding on the Bogue Chitto in Louisiana, on portions of the Chickasawhay, Leaf, and the Pascagoula Rivers.

MISSISSIPPI SYSTEM

Upper Mississippi Basin.--A comparison of snow depths in the Upper Mississippi Basin on January 31 with that of other years is given in the following table:

COMPARATIVE SNOW DEPTHS (INCHES)

Station	1962	1961	1960	1959	1958	1957	1956	1955
(Minnesota)								
Bemidji	13	4	8	8	5	11	26	8
International Falls	16	11	8	20	8	11	22	15
Duluth	15	9	16	11	11	14	29	17
Alexandria	9	0	5	0	5	2	16	6
New Ulm	2	T	1	2	3	T	6	4
Minneapolis	6	2	2	0	2	2	11	6
Rochester	3	T	2	3	2	1	10	3
(Wisconsin)								
Park Falls	19	2	14	12	12	13	21	17
Wausaw	9	T	4	6	5	7	12	--
Portage	7	1	2	10	4	4	2	--

A snow cover of 3 to 7 inches blanketed the northern half of Illinois during the first of January. Warm temperatures produced melting, and general rain and additional snow from the 4th to the 7th combined to cause appreciable rises in most of the streams in the area. Rainfall amounts of 1 to 2 inches were general from west-central Missouri eastward across central Illinois. The Sangamon River at Riverton, Ill., rose to above flood stage on the 7th and crested about 1.5 feet above flood stage on the 13th. At Momence, Ill., the Kankakee River remained a little above flood stage from the 8th to about the end of the month. The Kaskaskia rose to 5 feet above flood, starting as early as the 6th to the 8th at several points. Along with the general rains across southern and central sections of Missouri and

Illinois from the 4th to the 7th, new snow accumulated to several inches during the latter part of the period. This was followed by persistent and abnormally cold weather with low readings frequently below zero until about the 25th, when temperatures began to moderate. The extremely low temperatures over an extended period of time caused the ground to freeze to appreciable depths. Rivers were already above normal levels through much of the area due to conditions which prevailed earlier in the month. The moderating temperatures, with some general rains the latter part of the month, produced considerable melting, with a high percentage of runoff; so that at the end of the month many of the rivers were at comparatively high levels and the Illinois, Kaskaskia, Big Muddy, and Sangamon Rivers in Illinois and the Meramec at Pacific, Mo., equalled, or exceeded, flood stage. Ice conditions aggravated the situation in many local areas during the month. Heavy ice created jams at several locations, particularly in the pools of dams. In central and northern Illinois, many of the tributaries of the Illinois River were frozen over through some of the reaches of the river with ice reported up to 12 to 18 inches thick. On the 25th, heavy ice was gorged for a distance of 30 miles above Cairo, Ill., and this condition persisted for several days. Barge traffic on the Mississippi and the Illinois Rivers was at a standstill for a good portion of the month. Flooding, in all cases, occurred in lowlying marginal land areas which are usually not planted in any winter grains so that no damage was reported.

Missouri Basin. --Ice jams at the confluence of Baker Creek and the (west) Gallatin River 5 miles southwest of Belgrade, Mont., flooded an area of more than one-half square mile from the 21st to the 23d. Four to six families were evacuated. Only one dwelling was seriously damaged. There was little, if any, damage to farmlands and roads.

Ice freezing in the channel of the Beaverhead River caused it to overflow and inundate 6 to 10 square miles along the river north of Dillon, Mont. There were 20 houses and 43 trailer houses in the area. The trailer houses were moved from the flood zone in -30° weather which made moving very difficult. Loss was light, but there was much discomfort and inconvenience because of the cold. About 65 families were evacuated. The flooded land was mostly pasture- and grazing land. Damage was mostly to homes in the area.

An unusually early thaw and ice breakup over northeast Kansas late in January, following nearly 2 months of extreme cold and repeated snows, produced the worst ice jam of recent years on the Kansas River. Ice jams of significance are rare events to the lower Kansas drainage. The most recent prior occurrence to cause much trouble was in 1949 and that was mainly concentrated on the Republican and lower Big Blue Rivers. The ice broke on the Republican and lower Smoky Hill Rivers on the 27th and moved into the Kansas River the following 2 days. One stoppage caused brief flooding at Manhattan the afternoon of the 28th. Another 3-day jam just above Lawrence, Kans., resulted in severe farmland flooding on the left bank upstream to Lecompton from the evening of the 29th to the evening of February 1. Only minor flooding occurred immediately below the Lawrence-protected area after the ice jam broke. Elsewhere along the Kansas River the ice moved down the channel without major stoppage. At least two bridges were damaged. Sand plants and other equipment in the channel sustained heavy damage. Stages rose sharply as the ice moved downstream. As the ice flow moved through Topeka on the 29th, it was about 10 miles long and the stage rose 2 feet per hour for 5 hours. Considerable ice moved out of the channel above the Lawrence jam and the channel compacted to about 5 miles in length before it broke. As floodwaters above Lawrence receded, one 640-acre field was left almost completely covered with ice piled up to 14-foot depths in places. Individual blocks of ice were estimated to weigh in excess of 5 tons. Minor ice jams and only minor flooding were reported on the Delaware River and Stranger Creek. On the Marais des Cygnes River ice broke up without causing much trouble. Snowmelt runoff resulted in near bankfull stages at Quenemo and Ottawa, Kans., and light to moderate flooding at Osawatomie downstream. The thaw brought light to moderate flooding along with some ice jamming along the upper Solomon River. Ice jams were extensive on the upper Little Blue River above Fairbury, Nebr., and at least one bridge went out. Prolonged cold through December and most of January froze ice up to a foot or more thick on most streams. Much of northeast Kansas also had record snows during January, either in amount of snowfall or depth on the ground. Some areas north of the Kansas River had snow-covered ground for 54 days during December and January, a record for the area. Precipitation was mostly in the form of snow, but warm rains of 1/2 to 3/4 inch on the 26th hastened the melting of the 5- to 15-inch snow cover that still remained over north-central and northeast Kansas. Brief interludes of colder weather during the melting period distributed the runoff so that major flooding did not develop except locally along the Kansas River. Melting was slower and snow was not as deep over Nebraska so rises in the Blue River system were well within banks at gaging points. Comparatively heavy damages for the winter season were incurred locally on the Kansas River, with only minor losses elsewhere.

The flooding on the Grand River in Missouri was due to an ice jam, with some snowmelt as a contributing factor.

An ice jam on the Missouri River from Miami to Kansas City, Mo., caused some minor flooding at Waverly and Miami the latter part of the month. No significant damage resulted from the flooding.

Ohio Basin. --River levels in the upper Ohio Basin in Pennsylvania remained near seasonal levels throughout the month, with no flood stages being reached on the main rivers or major tributaries. Unseasonable cold temperatures over the upper Allegheny River Basin during the month of January resulted in the formation of an ice cover along the main river and tributaries. This ice condition was aggravated by runoff and mild temperatures on the 6th and again on the 26th. Runoff was not sufficient to carry off the ice cover before colder temperatures set in and congealed the ice. Ice gorges developed on the main Allegheny River in Pennsylvania at Tidioute, Oil City, West Monterey, and East Brady. On the tributary streams ice gorges developed at Cochranton, Pa., on French Creek, Oil City, Pa., on Oil Creek, and Mayburg, Pa., on Tionesta Creek. The ice gorge causing the greatest concern was the one on Oil Creek at Oil City, Pa. With the Allegheny River frozen over and gorged at the mouth of

Oil Creek, the ice from Oil Creek was being held from passing into the river and backwater effect had developed. The runoff-producing rainfall on the 26th resulted in some backwater flooding at Oil City affecting several homes and one industry.

The flooding on Paint Creek and on the Scioto River was due to locally heavy rains on the 21st and 22d. The frozen ground allowed maximum runoff during periods of moderate to heavy rain during the month. No damage resulted from the minor floods.

Minor flooding occurred along the middle and lower Green River in Kentucky towards the end of the month from general rains averaging 1 to 2 inches on the 21st and 22d. No damages were reported.

There were four periods of flooding in Indiana during the month. The first, from the 7th to the 10th on the Wabash, was minor and was due to precipitation averaging about 1 inch on the 6th and 7th. The second flooding was due to rain on the 15th, averaging 1-1/2 inches in a band 20 to 50 miles wide extending from Evansville to Winchester. Following this rain, the Muscatatuck River rose above flood stage at Crothersville and the White River rose above flood stage at Elliston on the 16th. The third flooding was also minor and occurred on the East Fork of the White River on the 23d from rains averaging 1 to 2 inches on the 22d. The fourth and most significant flooding began on the 26th on the Wabash and White Rivers and tributaries, due to rain averaging 1-1/2 to 2-1/2 inches. Most of the Wabash and its tributaries were ice-covered before the 26th. The first ice jam was observed downstream from Lafayette, Ind., on the afternoon of the 30th. There were numerous ice jams on the Wabash and tributaries upstream from Lafayette, with the longest one extending from Delphi to within 2 or 3 miles of Georgetown. There was no rapid thaw nor heavy precipitation near the end of the month, and ice conditions after the 26th remained mostly unchanged with fluctuating stages. The Wabash continued above flood stage at most points throughout the month. Damage to property along the Wabash and East Fork of the White River was mostly minor. The greatest damage occurred on the White River in the Ravenswood area, where a number of homes were flooded. Damage to crops was negligible.

There were three periods of flooding on the Saline River, the first on the 7th and 8th, the second on the 15th-18th, and the third from the 22d to the 27th, and each time at slightly higher stages than the preceding one.

Above normal rainfall occurred at most points in the Cumberland River Basin in Tennessee during January. Heavy rain on the 22d and 23d caused flooding on the Stones and Harpeth Rivers and a moderate rise on the lower Cumberland River. The crest was about 6 feet above flood stage at Kingston Springs on the Harpeth River and nearly 3 feet above flood stage on the Stones River at Donelson, Tenn., on the 23d. Crests of this magnitude cover only farmlands and cause very little if any damage at this time of the year. The only flooding along the mainstem of the Cumberland River occurred at Williamsburg, Ky., on the 28th and 29th.

Precipitation, averaging 4 to 5 inches from the 23d through the 29th throughout the Tennessee Valley, caused some overflow of small streams in east Tennessee. The Chickamauga Creek was in flood at Chickamauga, Tenn., from the 27th through the 31st, with a crest of 6.7 feet above flood stage on the 29th. Very little damage occurred but quite a bit of inconvenience because of several streets being temporarily closed. The Elk River at Fayetteville, Tenn., was in flood from the 28th through the 30th. Only bottom lands along the lower end of Norris Creek was affected. Little or no damage was reported.

A general rise occurred along the mainstem of the Ohio River, with some flooding along the lower portion and below at Shawneetown, Ill.

White Basin.--The heavy rains on the 21st and 22d caused a sharp rise on the lower Black River to bankfull stage at Black Rock, Ark., on the 24th. A slow rise occurred on the lower White River with a crest of 26.1 feet at Clarendon, Ark., on the 30th, 0.1 foot above flood stage. No damages resulted.

Arkansas Basin.--Heavy to locally record-breaking snowfall occurred in the Arkansas Basin from the 17th through the 19th. At Wichita, Kans., the new snow measured 15 inches which established a new record for new snow and total snow depth on the ground. The total snow cover was 17 inches. This band of heavy snow extended from Wichita northeastward into northeast Kansas, with new amounts up to 15 inches and total snow cover on the ground up to 21 inches. This was followed by rain on the 25th and 26th. This combination of snow and rain produced excessive runoff late in the month, especially over the lower Cottonwood and Neosho Basins in Kansas. Ice jams occurred on most rivers, but those on the Cottonwood and Neosho were the most serious, and combining with the runoff produced minor flooding from near Emporia downstream through Iola. Elsewhere streams were generally no more than three-fourths bankfull during this period. No significant damage resulted from the extensive lowland flooding.

Red Basin.--Moderate to locally heavy rains on the middle and lower Ouachita in Arkansas caused a sharp rise at Camden to 0.4 foot above flood stage on the 19th. Additional heavy rain on the 21st and 22d caused a secondary rise to 3.6 feet above flood stage at Arkadelphia on the 23d and 6.5 feet above flood stage at Camden on the 29th. The only loss from the flooding was the loss of the use of lowlands along the Ouachita River and a delay in timbering operations and in cutting and hauling pulp wood in the Camden area.

The flooding along the Little River in Arkansas and the Sulphur and Cypress Rivers in Texas was due to rainfall from the 22d through the 27th, with the larger amounts on the 22d, 26th, and 27th. Rainfall during the 6-day period averaged between 2.4 inches and 3 inches. Grazing lands could not be used and sand and gravel operations were hindered during the flooding.

Lower Mississippi Basin.--Heavy rainfall (1 to 3 inches) on the 22d over the upper St. Francis Basin in Missouri caused minor flooding at Fisk, Mo., and St. Francis, Ark., during the latter part of the month and the first few days of February. The river was above flood stage for 11 days at Fisk and 9 days at St. Francis. Flooding was confined to areas along the river inside the levees and to fairly swampy areas. Due to the time of the year, damage was confined to relatively small areas in winter crops.

Light flooding occurred on the Coldwater, Tallahatchie, lower Yazoo, and extreme lower Sunflower Rivers in Mississippi during January. The Coldwater River rose to above flood stage at Sarah, Miss., on the 1st and again on the 23d. The Tallahatchie at Swan Lake, Miss., rose to above flood stage on the 5th and remained above flood stage the remainder of the month. The Yazoo at Yazoo City remained above flood stage throughout the entire month. At Anguilla, on the extreme lower Sunflower, the river was at or near flood stage for the last 3 days of the month. On the Big Black River the river rose above flood stage at Pickens, Miss., on the 7th and remained above flood stage the remainder of the month. The Big Black at Bovina was above flood stage in the beginning of the month and again from the 15th through the remainder of the month. Due to the season of the year, the damages were light to moderate and confined mostly to farm- and pasturelands.

WEST GULF OF MEXICO DRAINAGE

The Sabine River was above flood stage at Deweyville, Tex., at the beginning of the month and falling. Rains began over the Sabine Basin on the 3d and spread eastward over the Calcasieu in Louisiana on the 4th and 5th. The heaviest rainfall reported was 2.52 inches at Bon Wier, Tex. The Calcasieu rose rapidly in the upper portion, reaching 1.4 feet above flood stage at Hineston on the 7th. The middle Calcasieu reached slightly above bankfull at Oakdale on the 11th and three-fourths bankfull at Kinder. Light to moderate rains on the 14th, with the heaviest (1.35 inches) over the middle Calcasieu, resulted in additional flooding at Hineston, La., from the 17th to the 23d. Scattered rains continued falling from the 17th to the 27th, causing additional flooding on the Calcasieu and Sabine Rivers.

An ice jam in the Animas River near the middle of January at its junction with the San Juan River on the outskirts of Farmington, N. Mex., caused water to back up and result in minor inundation of an area of about 20 city blocks. A few families were evacuated as water flooded the ground floor of their dwellings up to a depth of a few inches. The ice jam was dynamited and river flow restored to normal before any more serious damage occurred.

PACIFIC SLOPE DRAINAGE

Flash flooding occurred along Bannock Creek, Power County, Idaho, southwest of Pocatello over the weekend of the 6th and 7th, as Chinook winds warmed the area, melting snow and practically draining the valley from Arbon settlement, through Pauline and down Bannock Creek. Flood waters struck outlying areas, with farm buildings surrounded by ice and water. No damage was reported.

The Lemhi River overflowed its banks on the 20th, backing up when its junction with the Salmon River became clogged with ice. Flood waters spread into the north side of Salmon, Idaho, with water standing 2 feet deep in places necessitating evacuation of more than 20 families.

PUGET SOUND DRAINAGE

Excessive rains on the 3d and 4th and again from the 6th to the 8th caused the Snohomish and Snoqualmie Rivers in Washington to exceed flood stage 3 to 5 feet on the 3d and 4th and again on the 7th and 8th. The Stillaguamish River exceeded flood stage on the 3d. In some parts of the basin precipitation exceeded 5 inches on the 3d and 4th and again from the 6th to the 8th. Above normal temperatures and snowmelt also were contributing factors. Some inconvenience resulted from the flooding, but damage was minor.

FLOOD STAGE DATA

(All dates in January unless otherwise specified)

River and station	Flood stage	Above flood stages -dates		Crest*	
		From–	To–	Stage	Date
ST. LAWRENCE DRAINAGE	Ft.			Ft.	
Lake Erie					
St. Marys: Decatur, Ind.	15	26	Feb. 1	18.2	28
Blanchard: Findlay, Ohio	765	27	27	768.15	27
ATLANTIC SLOPE DRAINAGE					
Millstone: Blackwells Mills, N.J.	8	7	8	9.4	7
Raritan: Manville, N. J.	12	7	7	13.5	7
Bound Brook, N. J.	[illegible]	7	8	9.3	7
Roanoke: Randolph, Va.	21	7	8	21.6	7
Tar: Rocky Mount, N. C.	9	10	12	10.0	11
Tarboro, N. C.	19	12	14	20.3	13
Greenville, N. C.	13	13	16	13.5	15
Neuse: Neuse, N. C.	14	7 29	12 Feb. 2	20.0 16.6	9 31
Smithfield, N. C.	13	7 29	14 Feb. 3	19.0 16.6	11 Feb. 2
Goldsboro, N. C.	14	11	19	18.1	16
Kinston, N. C.	14	15	22	15.7	19
Cape Fear: Moncure, N. C.	20	6	8	23.3	7
Fayetteville, N. C.	35	8	11	43.65	8
Lock No. 3, Tarheel, N.C.	42	8 29	12 Feb. 1	57.0 47.5	9 10
Lock No. 2, Elizabethtown, N. C.	20	8 30	13 Feb. 2	31.0 25.5	10 31
Rocky: Norwood, N. C.	16	6 28	9 29	31.0 23.55	7 29
Pee Dee: Cheraw, S. C.	30	7 30	10 30	E39.3 E31.0	8 30
Peedee, S. C.	19	9 31	18 Feb. 6	23.15 20.8	14 Feb. 3
Saluda: Pelzer, S. C.	6	7	8	6.5	7
Chappells, S. C.	13	6	8	17.6	7
Broad: Blair, S. C.	14	7 29	9 30	23.3 16.6	7 29
Congaree: Columbia, S. C.	19	7	8	19.5	8
EAST GULF OF MEXICO DRAINAGE					
Apalachicola: Blountstown, Fla.	15	7 23 27	15 25 31	18.1 15.2 15.7	9,10 24 29
Choctawatchee: Caryville, Fla.	12	8	10	12.3	9
Oostanaula: Resaca, Ga.	22	28	Feb. 2	27.4	30
Coosa: Gadsden, Ala.	20	28	Feb. 2	20.8 22.0	29 31
Cahaba: Centreville, Ala.	23	19 28	19 28	21.4 22.5	19 28
Alabama: Claiborne, Ala.	40	Dec. 13	2	48.9	Dec. 25
Black Warrior: Oliver Lock & Dam, (Tuscaloosa), Ala.	47	27	31	57.0	29
Warrior Lock & Dam, Ala.	30	10 28	12 Feb. 5	32.0 39.9	9 Feb. 1
Tombigbee: Amory, Miss.	20	6 16 24	10 16 Feb. 1	24.0 20.4 26.5	7 16 28
Fulton, Miss.	16	7 17 25	9 17 31	17.9 16.4 17.4	7 17 29
Macon, Miss.	25	28	Feb. 1	28.2	28
Tibbie, Miss.	23	8 28	9 31	23.9 26.3	9 29
Tupelo, Miss.	21	6	6	23.8	6
Aberdeen, Miss.	34	8 28	9 Feb. 2	36.5 39.6	9 29
Columbus, Miss.	29	30	Feb. 1	30.7	31
Gainesville, Ala.	36	Dec. 15 28	2 Feb. 5	53.7 43.3	Dec. 23 Feb. 4
Demopolis, Ala.	48	Dec. 14	Feb. 9	67.1 59.1	Dec. 26 Feb. 4
Jackson Lock & Dam, Ala.	43	Dec. 12	Feb. 13	60.6 53.0	Dec. 30 Feb. 8
EAST GULF OF MEXICO DRAINAGE(Cont'd.)	Ft			Ft.	
Chickasawhay: Enterprise, Miss.	20	7 19	9 21	23.9 22.3	8 21
Shubuta, Miss.	30	23	24	30.7	23
Leaf: Hattiesburg, Miss.	22	8	8	22.5	8
Beaumont, Miss.	20	12 22	12 26	22.0 21.6	12 24
Pascagoula: Merrill, Miss.	22	24	1/	22.4	25
Bogue Chitto: Franklinton, La.	11	6	7	13.4	7
Pearl: Edinburg, Miss.	20	8 21 28	12 23 1/	22.1 20.6 23.2	10 21 30
Jackson, Miss.	18	Dec. 11	1/	37.3 29.3	Dec. 21 28
Monticello, Miss.	19	Dec. 13 16	10 1/	30.0 25.25	Dec. 25 21
Columbia, Miss.	17	Dec. 14 18	11 1/	25.2 21.0	Dec. 27 22
Bogalusa, La.	15	Dec. 10	1	20.9 20.0	Dec. 29 8
Pearl River, La.	12	12	1/	17.25	21
MISSISSIPPI SYSTEM					
Upper Mississippi Basin					
Kankakee: Momence, Ill.	4	8	29	5.8	9,10,11
Sangamon: Riverton, Ill.	13	7 28	16 1/	14.5	13
Illinois: Beardstown, Ill.	14	18 23	20 1/	14.1	20
Havana, Ill.	14	29	1/		
Meredosia, Ill.	428	15	1/		
Meramec: Pacific, Mo.	11	28	28	11.0	28
Kaskaskia: Carlyle, Ill.	21	8 28	22 1/	#24.5	12-13
Shelbyville, Ill.	13	27	1/	15.0	29
Vandalia, Ill.	18	6 27	11 1/	21.0 22.7	8 29
Big Muddy: Murphysboro, Ill.	16	21	1/	27.7	29
Missouri Basin					
Solomon: Beloit, Kans.	20	28	29	22.75	28
Glasco, Kans.	22	29	30	25.35	29
Black Vermillion: Frankfort, Kans.	19	27	27	19.1	27
Stranger Creek: Tonganoxie, Kans.	22	Feb. 4 Feb. 5	Feb. 4 Feb. 5	22.1 23.0	Feb. 4 Feb. 5
Kansas: Manhattan, Kans.	17	28	28	20.75	28
Lecompton, Kans.	17	29	Feb. 1	21.7	31
Lawrence, Kans.	18	Feb. 1	Feb. 1	19.0	Feb. 1
Grand: Sumner, Mo.	26	28	Feb. 1	29.1	29
Brunswick, Mo.	12	29	29	14.3	29
Marais des Cygnes: Quenemo, Kans.	28	31	31	28.0	31
Osawatomie, Kans.	28	31	Feb. 3	30.7	Feb. 2
LaCygne, Kans.	25	30	Feb. 5	28.6	Feb. 3
Trading Post, Kans.	24	Feb. 3	Feb. 5	24.7	Feb. [illegible]
Osage: Shell City, Mo.	25	29	1/		
Missouri: Waverly, Mo.	18	28	29	20.0	29
Miami, Mo.	18	29	29	18.7	29
Ohio Basin					
Paint Creek: Bourneville, Ohio	10	22	23	13.55	22
Scioto: LaRue, Ohio	11	27	28	14.1	27
Prospect, Ohio	10	28	29	11.0	29
Circleville, Ohio	14	28	28	14.55	28
Piketon, Ohio	16	23	23	16.8	23
Green: Munfordville, Ky.	28	23	26		
Lock 6, Brownsville, Ky.	18	22	27		

FLOOD STAGE DATA

(All dates in January unless otherwise specified)

JANUARY 1962

River and station	Flood stage	Above flood stages -dates		Crest *	
		From—	To—	Stage	Date
MISSISSIPPI SYSTEM (Cont'd.)	Ft.			Ft.	
Ohio Basin (Cont'd.)					
Green (Cont'd.): Lock 4, Woodbury, Ky.	33	23	29	39.5	26
Lock 2, Calhoun, Ky.	23	26	1/		
Sugar Creek: Crawfordsville, Ind.	T8	27	27	11.2	27
Embarass: Ste. Marie, Ill.	18	29	1/	19.2	30
Eagle Creek: Zionsville, Ind.	T7	26	27	15.3	27
Eel: Bowling Green, Ind.	17	27	28	17.8	28
Muscatatuck: Crothersville, Ind.	T16	16 23	17 25	17.9 23.2	17 23
East Fork: Seymour, Ind.	14	23	23	14.3	23
White: Muncie, Ind.	6	27	27	8.2	27
Anderson, Ind.	10	26	29	13.2	27
Noblesville, Ind.	14	26		17.5	28
Nora, Ind.	6	7 12 16 26	8 13 24 1/	7.25 6.3 8.9 15.8	8 12 17 28
Ravenswood, Ind.	6	26	30	10.0	28
Centerton, Ind.	T602	27	30	605.9	29
Spencer, Ind.	14	28	1/	19.5	30
Elliston, Ind.	18	16 29	17	19.0	17
Edwardsport, Ind.	15	29	11		
Petersburg, Ind.	16	22	1/	18.15	25
Skillet Fork: Wayne City, Ill.	15	22 27	25 30	18.4 16.8	23 27
Saline: Harrisburg, Ill.	13	7 15 22	8 18 27		
Stones: Donelson, Tenn.	T40	23	23	14.6	23
Harpeth: Kingston Springs, Tenn.	15	23	25	21.0	23
Cumberland: Williamsburg, Ky.	21	28	29	21.45	29
Chickamauga Creek: Chickamuaga, Tenn.	10	27	31	16.7	29
Elk: Fayetteville, Tenn.	659	28	30	661.95	28-29
Ohio: Shawneetown, Ill.	33	27	1/	35.3	30
Dam 50, Fords Ferry, Ky.	34	26	1/	37.8	30
White Basin					
Black: Black Rock, Ark.	14	24	24	14.0	24
White: Clarendon, Ark.	26	29	Feb. 4	26.1	30

River and station	Flood stage	Above flood stages -dates		Crest *	
		From—	To—	Stage	Date
MISSISSIPPI SYSTEM (Cont'd.)	Ft.			Ft.	
Arkansas Basin					
Cottonwood: Emporia, Kans.	20	30	Feb. 1	22.0	31
Neosho: Burlington, Kans.	27	30	Feb. [illegible]	29.5	Feb. 1
LeRoy, Kans.	23	31	Feb. 3	24.15	Feb. 2
Iola, Kans.	15	31	Feb. 4	16.3	Feb. 3
Red Basin					
Ouachita: Arkadelphia, Ark.	17	23	24	20.6	23
Camden, Ark.	26	18 25	20 Feb. 4	26.4 32.5	19 29
Little: Horatio, Ark.	27	28	28	27.4	28
Wilton, Ark.	25	25 28	25 1/	25.05 29.3	25 29
Sulphur: Naples, Tex.	22	29	1/	27.3	31
Cypress: Jefferson, Tex.	18	31	1/	18.1	31
Lower Mississippi Basin					
St. Francis: Fisk, Mo.	20	24	Feb. 3	24.2	27
St. Francis, Ark.	18	29	Feb. [illegible]	20.3	31
Coldwater: Sarah, Miss.	18	1 23	1 23	18.1 19.9	1 23
Tallahatchie: Swan Lake, Miss.	26	Dec. 17 5	Dec. 26 31	27.2 28.2	Dec. 20 31
Sunflower: Anguilla, Miss.	45	Dec. 15 29	Dec. 28 30	46.8 45.0	Dec. 20 29
Yazoo: Yazoo City, Miss.	29	Dec. 15	31	33.0 32.9	Dec. 27 1,6,15
Big Black: Pickens, Miss.	16	Dec. 11 7	Dec. 28 31	21.5 18.8	Dec. 19 29
Bovina, Miss.	28	Dec. 11 15	3 31	40.6 37.4	Dec. 21 31
WEST GULF OF MEXICO DRAINAGE					
Calcasieu: Hineston, La.	12	[illegible] 17 29	10 23 1/	13.4 13.0 12.4	7 19 29
Kinder, La.	16	23	24	16.9	24
Sabine: Deweyville, Tex.	14	Dec. 15 30	[illegible] 31	15.5 14.0	Dec. 21 30,31
PACIFIC SLOPE DRAINAGE					
Puget Sound Drainage					
Stillaguamish: Arlington, Wash.	16	3	3	16.5	3
Snoqualmie: Carnation, Wash.	51	3 7	4 8	53.7 54.4	4 8
Snohomish: Snohomish, Wash.	23	3 7	4 9	27.55 28.2	4 [illegible]

* Provisional
E Estimated
T Tentative
# Highest stage observed
1/ Continued at end of month

RAWINSONDE DATA

Average monthly values

JANUARY 1962

ALBANY, N. Y. (1008 MB.)

Standard pressure surface (mb.)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind Direction	Wind Speed
SURFACE	31	86	- 7.4	74	247	3.1
1,000--	31	148			256	4.1
950----	31	549	- 7.4	66	264	11.9
900----	31	968	- 8.8	67	274	22.0
850----	31	1,410	- 9.8	63	278	28.2
800----	31	1,878	-10.6	52	275	32.6
750----	31	2,374	-12.2	52	271	37.3
700----	31	2,900	-14.0	48	269	42.0
650----	31	3,460	-15.4	41	268	46.6
600----	31	4,062	-18.3	41	267	50.9
550----	31	4,706	-21.9	41	264	55.2
500----	31	5,404	-26.1		263	59.8
450----	31	6,156	-31.1	37	262	63.3
400----	31	6,987	-36.7		261	68.6
350----	31	7,901	-42.4		265	69.8
300----	31	8,930	-48.6		262	72.7
250----	31	10,113	-54.5		262	79.7
200----	30	11,531	-57.5		263	78.5
175----	30	12,374	-57.5		266	73.6
150----	30	13,349	-57.2		260	69.2
125----	30	14,501	-58.0		261	64.1
100----	30	15,905	-59.1		261	67.0
80-----	30	17,302	-59.5		263	64.9
70-----	30	18,139	-59.3		263	60.8
60-----	30	19,104	-59.0		262	59.3
50-----	29	20,249	-58.6		261	59.5
40-----	25	21,663	-58.4		259	60.0
30-----	22	23,483	-56.7		256	64.9
25-----	20	24,654	-55.7		258	65.1
20-----	16	26,108	-55.0		258	71.7
15-----	7	28,014	-51.8			

ALBUQUERQUE, N. MEX. (840 MB.)

Standard pressure surface (mb.)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind Direction	Wind Speed
SURFACE	31	1,619	- 4.4	74	33	2.1
1,000--	31	222				
950----	31	629				
900----	31	1,067				
850----	31	1,524				
800----	31	2,006	- 1.8	50	287	3.1
750----	31	2,516	- 2.9	47	283	9.7
700----	31	3,063	- 4.7	45	286	14.6
650----	31	3,637	- 7.3	45	293	17.1
600----	31	4,263	-10.7	43	288	21.4
550----	31	4,921	-14.6	39	286	23.9
500----	31	5,644	-19.1		286	25.6
450----	31	6,412	-24.3		292	28.4
400----	31	7,270	-30.5		292	30.9
350----	31	8,205	-37.6		295	33.0
300----	31	9,250	-45.7		297	33.0
250----	31	10,442	-53.7		297	39.8
200----	31	11,856	-58.6		289	47.0
175----	31	12,693	-59.9		291	48.0
150----	31	13,655	-60.2		288	46.6
125----	31	14,791	-61.3		292	41.0
100----	29	16,168	-63.8		295	34.2
80-----	29	17,533	-64.4		292	29.7
70-----	28	18,360	-63.4		297	25.3
60-----	28	19,303	-62.3		305	21.0
50-----	27	20,431	-61.8		313	15.3
40-----	26	21,818	-60.3		308	14.2
30-----	20	23,626	-58.4		301	13.8
25-----	14	24,777	-57.5		304	16.1
20-----	6	26,247	-55.9			
15-----						

AMARILLO, TEXAS (895 MB.)

Standard pressure surface (mb.)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind Direction	Wind Speed
SURFACE	31	1,095	- 5.0	71	303	4.9
1,000--	31	208				
950----	31	615				
900----	31	1,048				
850----	31	1,499	- .9	46	298	9.7
800----	31	1,984	.3	40	281	11.3
750----	31	2,498	- 1.3	34	282	12.8
700----	31	3,048	- 3.7	32	285	15.7
650----	31	3,624	- 6.7	34	273	21.2
600----	31	4,251	-10.4	38	273	24.1
550----	31	4,908	-14.6	39	276	27.6
500----	31	5,631	-19.5	39	275	32.4
450----	31	6,399	-24.6		278	36.3
400----	31	7,253	-30.9		277	40.4
350----	30	8,192	-37.6		275	46.2
300----	30	9,239	-45.1		273	55.8
250----	30	10,436	-52.6		274	62.6
200----	29	11,859	-58.9		270	62.2
175----	29	12,694	-60.2		268	66.6
150----	29	13,655	-59.8		270	64.1
125----	27	14,803	-60.5		273	54.8
100----	24	16,182	-63.1		270	45.3
80-----	23	17,550	-64.0		268	41.0
70-----	21	18,374	-63.0		268	35.8
60-----	20	19,328	-62.6		276	27.4
50-----	19	20,454	-63.0		283	22.7
40-----	14	21,853	-59.7		281	22.5
30-----	11	23,676	-57.5			
25-----	10	24,832	-56.5			
20-----	9	26,247	-56.2			
15-----						

ANCHORAGE, ALASKA (1011 MB.)

Standard pressure surface (mb.)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind Direction	Wind Speed
SURFACE	31	29	-10.6	73	5	2.1
1,000--	31	117			7	5.6
950----	31	518	- 5.8	55	20	8.0
900----	31	940	- 5.6	56	28	9.5
850----	31	1,386	- 7.3	52	61	7.4
800----	31	1,857	- 9.4	52	98	6.6
750----	31	2,351	-11.7	51	124	6.0
700----	31	2,879	-14.4	47	161	4.7
650----	31	3,431	-17.4	46	205	4.1
600----	31	4,033	-20.8		224	5.2
550----	31	4,665	-25.1	43	251	6.0
500----	31	5,356	-29.4	42	257	9.1
450----	31	6,097	-33.9		254	9.7
400----	31	6,917	-39.7		244	15.3
350----	31	7,818	-45.4		253	17.9
300----	31	8,831	-51.6		246	22.9
250----	31	10,001	-55.2		248	25.3
200----	31	11,423	-55.5		255	32.6
175----	31	12,277	-54.1		257	30.9
150----	30	13,266	-52.8		259	32.1
125----	30	14,442	-52.6		265	35.9
100----	30	15,883	-52.6		271	38.3
80-----	30	17,324	-52.8		278	43.9
70-----	30	18,186	-53.0		280	44.9
60-----	29	19,178	-53.3		280	49.5
50-----	29	20,351	-53.5		285	56.0
40-----	29	21,788	-53.3		290	64.1
30-----	28	23,638	-53.2		296	71.5
25-----	25	24,818	-53.4		301	78.7
20-----	21	26,268	-53.8		309	81.0
15-----	10	28,171	-51.1			

ANNETTE, ALASKA (1015 MB.)

Standard pressure surface (mb.)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind Direction	Wind Speed
SURFACE	31	37	1.9	80	136	3.1
1,000--	31	154			137	7.8
950----	31	568	- .2	75	161	12.2
900----	31	998	- 2.1	73	194	12.2
850----	31	1,451	- 4.1	70	212	10.9
800----	31	1,927	- 6.7	66	228	12.8
750----	31	2,429	- 8.8	59	243	15.9
700----	31	2,962	-11.4	53	256	15.3
650----	31	3,524	-14.2	51	275	16.3
600----	31	4,131	-17.5	51	276	22.2
550----	31	4,775	-21.2	47	275	25.6
500----	31	5,476	-25.6	46	274	26.4
450----	31	6,227	-30.6	45	289	26.8
400----	31	7,060	-36.3		308	23.1
350----	31	7,974	-42.5		336	24.5
300----	31	9,000	-49.4		327	26.0
250----	31	10,175	-56.4		311	36.9
200----	31	11,576	-59.6		314	43.9
175----	29	12,411	-58.2		315	45.5
150----	29	13,386	-56.2		320	44.3
125----	29	14,546	-56.2		321	46.4
100----	27	15,959	-56.7		320	48.6
80-----	26	17,371	-56.9		319	46.4
70-----	26	18,217	-57.0		319	50.1
60-----	26	19,192	-57.0		319	52.8
50-----	24	20,342	-57.1		321	56.2
40-----	23	21,751	-57.3		327	64.1
30-----	19	23,572	-58.6		329	78.1
25-----	17	24,696	-59.6		332	88.4
20-----	14	26,092	-61.0			
15-----						

ATHENS, GA. (992 MB.)

Standard pressure surface (mb.)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind Direction	Wind Speed
SURFACE	31	246	2.4	89	351	1.4
1,000--	31	181				
950----	31	599	4.0	70	289	6.6
900----	31	1,039	4.2	65	274	10.3
850----	31	1,503	2.8	56	261	14.8
800----	31	1,993	1.6	50	260	20.8
750----	31	2,511	.4	47	258	26.6
700----	31	3,064	- 2.1	48	258	30.1
650----	31	3,646	- 5.3	46	257	35.4
600----	31	4,275	- 8.6	42	257	43.1
550----	31	4,942	-12.5	38	260	42.9
500----	31	5,667	-17.0		258	48.0
450----	31	6,439	-22.7	37	258	52.7
400----	31	7,304	-26.6		261	54.2
350----	31	8,247	-35.6		257	63.0
300----	30	9,301	-43.2		259	69.4
250----	29	10,504	-51.6		260	76.0
200----	29	11,928	-58.3		261	88.0
175----	29	12,764	-60.0		263	89.2
150----	29	13,723	-61.6		262	82.2
125----	28	14,850	-63.4		265	76.6
100----	26	16,214	-65.9		266	60.8
80-----	24	17,567	-65.5		267	48.8
70-----	23	18,389	-64.1		267	42.4
60-----	22	19,323	-63.5		268	35.8
50-----	20	20,457	-61.2		264	28.4
40-----	20	21,852	-58.4		263	26.4
30-----	18	23,666	-56.3		264	29.1
25-----	18	24,829	-54.3		260	33.0
20-----	16	26,260	-51.8		258	47.8
15-----	11	28,161	-46.4			

BARROW, ALASKA (1019 MB.)

Standard pressure surface (mb.)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind Direction	Wind Speed
SURFACE	31	8	-18.9	74	209	3.1
1,000--	31	148	-17.2	72	248	2.9
950----	31	534	-16.1	67	258	5.6
900----	31	940	-15.9	65	271	5.4
850----	31	1,371	-16.5	59	260	6.2
800----	31	1,825	-17.8	55	263	4.3
750----	31	2,303	-19.4	50	256	5.2
700----	31	2,818	-21.1	45	264	9.1
650----	31	3,359	-23.4	42	262	10.7
600----	31	3,945	-26.7	44	259	14.2
550----	31	4,564	-30.5		263	18.3
500----	31	5,240	-34.8		268	17.7
450----	31	5,967	-39.6		270	17.7
400----	31	6,766	-44.8		271	21.0
350----	31	7,648	-50.2		276	23.9
300----	31	8,643	-55.7		277	23.9
250----	31	9,790	-60.5		276	32.6
200----	30	11,171	-62.1		276	34.6
175----	30	12,000	-60.4		269	38.7
150----	29	12,960	-59.8		279	43.5
125----	28	14,112	-59.3		278	44.9
100----	25	15,483	-59.5		279	59.5
80-----	24	16,872	-59.9		280	72.5
70-----	23	17,692	-60.2		280	81.2
60-----	21	18,675	-61.0		280	91.7
50-----	19	19,821	-61.3		279	90.5
40-----	18	21,223	-61.8		279	95.2
30-----	16	23,004	-62.9		281	112.5
25-----	14	24,141	-63.1		280	127.3
20-----	[illegible]	25,368	-66.0			
15-----						

BARTER IS., ALASKA (1019 MB.)

Standard pressure surface (mb.)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind Direction	Wind Speed
SURFACE	31	15	-18.9	72	251	6.8
1,000--	31	157			268	17.3
950----	31	542	-16.4	60	276	14.4
900----	31	950	-15.5	57	279	15.0
850----	31	1,382	-15.5	57	282	14.0
800----	31	1,839	-16.6	56	286	13.0
750----	31	2,323	-17.9	53	288	15.2
700----	31	2,837	-19.9	50	291	15.2
650----	31	3,380	-22.7	46	289	15.7
600----	31	3,968	-26.1	48	292	17.9
550----	31	4,587	-29.5	47	296	20.6
500----	31	5,268	-33.9	45	294	22.5
450----	31	5,993	-38.9		293	23.3
400----	31	6,799	-44.7		284	24.1
350----	31	7,681	-50.6		285	25.6
300----	31	8,672	-56.3		288	28.4
250----	31	9,817	-61.0		286	28.6
200----	31	11,195	-62.5		288	35.9
175----	28	12,021	-61.6		286	38.3
150----	27	12,980	-60.6		287	40.8
125----	24	14,115	-60.2		290	46.2
100----	23	15,493	-60.4		298	54.8
80-----	20	16,907	-61.3		296	63.5
70-----	20	17,731	-62.2		296	67.4
60-----	20	18,685	-63.0		298	76.4
50-----	17	19,844	-63.5		303	87.6
40-----	8	21,319	-62.1			
30-----	6	23,142	-63.2			
25-----						
20-----						
15-----						

BETHEL, ALASKA (1014 MB.)

Standard pressure surface (mb.)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind Direction	Wind Speed
SURFACE	31	39	-18.2	70	30	1.9
1,000--	31	146			20	3.1
950----	31	538	-10.7	53	46	3.7
900----	31	955	-10.3	50	56	1.4
850----	31	1,396	-10.9	44	334	1.2
800----	31	1,861	-12.0	40	282	1.9
750----	31	2,347	-13.9	38	268	4.1
700----	31	2,875	-16.3		257	6.0
650----	31	3,427	-19.0	34	254	7.0
600----	31	4,023	-22.2		241	9.3
550----	31	4,655	-26.0		245	10.7
500----	31	5,342	-30.4		241	11.7
450----	31	6,080	-35.6		229	13.8
400----	31	6,895	-41.0		229	16.1
350----	31	7,792	-46.4		229	17.1
300----	31	8,803	-52.2		229	19.6
250----	31	9,972	-55.7		233	22.0
200----	30	11,397	-54.6		243	26.4
175----	30	12,256	-52.7		250	26.4
150----	30	13,256	-51.2		251	28.6
125----	29	14,444	-50.6		255	32.3
100----	27	15,897	-50.9		255	36.7
80-----	26	17,346	-50.6		263	39.1
70-----	25	18,211	-50.5		265	41.6
60-----	25	19,221	-50.3		268	43.5
50-----	24	20,405	-50.1		274	50.3
40-----	23	21,862	-49.9		278	56.0
30-----	22	23,739	-50.0		281	61.6
25-----	19	24,942	-50.8		287	65.1
20-----	14	26,462	-50.3		294	70.9
15-----	8	28,325	-49.4			

BISMARCK, N. DAK. (958 MB.)

Standard pressure surface (mb.)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind Direction	Wind Speed
SURFACE	31	505	-13.5	72	299	5.2
1,000--	31	177				
950----	31	566			308	8.4
900----	31	981	-11.0	62	305	21.4
850----	31	1,422	- 9.6	59	310	28.2
800----	31	1,890	-10.6	61	311	32.3
750----	31	2,385	-11.8	58	306	34.2
700----	31	2,913	-13.9	56	303	39.2
650----	31	3,470	-16.6	56	302	43.5
600----	31	4,073	-19.8	54	300	47.4
550----	31	4,709	-23.5	51	299	50.5
500----	31	5,406	-27.9	51	299	53.4
450----	30	6,152	-32.8		301	57.5
400----	30	6,979	-38.6		298	63.9
350----	30	7,884	-44.6		299	67.2
300----	30	8,900	-51.2		300	67.6
250----	30	10,068	-56.9		295	66.5
200----	28	11,475	-59.0		295	58.3
175----	27	12,310	-58.8		291	58.1
150----	26	13,270	-57.8		293	56.2
125----	26	14,418	-58.1		293	57.3
100----	26	15,822	-58.8		298	54.6
80-----	26	17,219	-59.8		299	58.3
70-----	23	18,045	-59.7		297	58.5
60-----	23	19,008	-60.6		294	58.1
50-----	20	20,110	-62.7		293	63.9
40-----	19	21,483	-63.5			
30-----	11	23,329	-64.4			
25-----	8	24,534	-64.4			
20-----	6	25,949	-64.3			
15-----						

BOISE, IDAHO (926 MB.)

Standard pressure surface (mb.)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind Direction	Wind Speed
SURFACE	31	868	- 7.4	70	158	1.7
1,000--	31	263				
950----	31	667				
900----	31	1,090	- 5.9	67	189	1.4
850----	31	1,539	- 5.1	65	288	3.3
800----	31	2,015	- 5.3	61	298	8.5
750----	31	2,526	- 6.2	56	302	14.2
700----	31	3,059	- 8.2	52	308	18.1
650----	31	3,632	-10.6	48	312	21.8
600----	31	4,244	-13.8	46	315	26.0
550----	31	4,898	-17.6	40	310	29.1
500----	31	5,608	-22.0	39	309	30.1
450----	31	6,370	-27.1	36	308	32.3
400----	31	7,215	-33.2	36	308	35.8
350----	31	8,140	-40.0		311	39.6
300----	31	9,175	-47.8		311	43.5
250----	31	10,358	-55.3		309	43.7
200----	31	11,759	-60.8		310	42.9
175----	30	12,587	-60.9		302	41.2
150----	30	13,548	-59.5		299	40.6
125----	30	14,689	-60.0		297	38.7
100----	30	16,077	-60.8		299	38.9
80-----	28	17,459	-60.0		301	34.8
70-----	26	18,293	-60.1		300	33.8
60-----	26	19,249	-60.1		305	33.0
50-----	23	20,397	-59.2		311	30.3
40-----	22	21,804	-59.6		313	31.9
30-----	18	23,590	-60.4		316	36.7
25-----	14	24,697	-61.3		312	41.0
20-----	7	26,175	-60.7			
15-----						
10-----						

BROWNSVILLE, TEXAS (1021 MB.)

Standard pressure surface (mb.)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind Direction	Wind Speed
SURFACE	31	7	9.9	85	324	3.3
1,000--	31	179	11.8	74	350	4.3
950----	31	609	11.5	72	145	1.9
900----	31	1,060	10.0	63	198	4.9
850----	31	1,534	8.8	55	213	10.7
800----	31	2,035	7.6	46	219	14.0
750----	31	2,563	6.1	35	241	13.6
700----	31	3,129	3.5	31	258	15.5
650----	31	3,721	.6		271	17.1
600----	31	4,365	- 2.9		255	21.0
550----	31	5,040	- 6.9		266	26.8
500----	31	5,787	-11.4		263	32.6
450----	31	6,580	-17.1		261	39.2
400----	31	7,460	-23.8		258	45.3
350----	31	8,421	-31.2		258	51.1
300----	31	9,495	-39.1		259	59.5
250----	31	10,720	-48.1		259	70.5
200----	31	12,161	-56.9		260	82.4
175----	31	13,000	-60.1		258	75.2
150----	30	13,955	-63.3		250	72.9
125----	29	15,063	-67.5		257	64.9
100----	29	16,393	-71.6		259	49.7
80-----	26	17,706	-72.2		256	41.0
70-----	21	18,505	-71.0		259	25.6
60-----	20	19,414	-68.4		258	16.5
50-----	20	20,518	-63.8		261	8.0
40-----	20	21,905	-58.7		259	5.6
30-----	16	23,716	-55.1		255	10.1
25-----	13	24,869	-53.5		253	9.5
20-----	9	26,319	-51.6			
15-----	5	28,160	-46.6			
10-----	5	30,874	-42.5			

BUFFALO, N. Y. (992 MB.)

Standard pressure surface (mb.)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind Direction	Wind Speed
SURFACE	31	218	- 6.1	66	243	8.7
1,000--	31	154				
950----	31	550	- 7.4	69	249	19.6
900----	31	976	- 8.6	68	254	25.3
850----	31	1,418	-10.1	64	255	29.7
800----	31	1,884	-11.2	59	263	32.6
750----	31	2,374	-12.8	59	265	35.0
700----	31	2,903	-14.2	54	267	36.3
650----	31	3,458	-16.2	54	268	41.6
600----	31	4,062	-19.1	51	269	45.5
550----	31	4,699	-22.7	48	268	49.0
500----	31	5,399	-26.7	42	267	54.0
450----	31	6,146	-30.2	42	265	58.3
400----	31	6,978	-37.0		264	63.0
350----	31	7,889	-43.2		263	69.2
300----	31	8,914	-49.2		264	68.2
250----	31	10,095	-54.2		262	74.4
200----	31	11,517	-56.6		261	75.2
175----	31	12,363	-56.9		259	76.0
150----	30	13,333	-57.4		261	71.1
125----	26	14,511	-58.0		261	68.0
100----	25	15,900	-59.1		261	71.5
80-----	20	17,290	-58.2		261	61.6
70-----	19	18,128	-59.0		265	54.2
60-----	19	19,090	-59.5		262	53.2
50-----	15	20,220	-60.1		260	53.6
40-----	14	21,615	-59.6		261	56.5
30-----	13	23,443	-58.4		257	64.7
25-----	13	24,594	-56.6		256	63.9
20-----	8	26,058	-47.5			
15-----						
10-----						

BURRWOOD, LA. (1022 MB.)

Standard pressure surface (mb.)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind Direction	Wind Speed
SURFACE	31	3	9.6	88	33	5.1
1,000--	31	181	10.9	74	16	3.9
950----	31	608	9.3	67	238	1.0
900----	31	1,057	8.6	55	248	7.2
850----	31	1,529	7.4	48	251	13.0
800----	31	2,027	6.5	43	255	18.8
750----	31	2,552	4.2	44	258	22.7
700----	31	3,113	1.2	44	255	24.9
650----	31	3,701	- 1.6	35	254	28.6
600----	31	4,340	- 4.7		255	30.7
550----	31	5,010	- 8.7		256	34.6
500----	31	5,752	-13.4		254	40.0
450----	31	6,539	-18.8		251	46.6
400----	31	7,414	-25.3		258	50.3
350----	31	8,370	-32.3		262	59.3
300----	31	9,439	-40.5		263	67.2
250----	31	10,659	-48.7		261	78.3
200----	31	12,097	-57.0		260	85.5
175----	31	12,938	-59.6		258	87.8
150----	31	13,895	-62.6		258	87.0
125----	29	15,015	-66.4		259	77.3
100----	26	16,355	-69.9		259	60.4
80-----	23	17,684	-70.2		261	40.6
70-----	22	18,486	-69.1		261	33.4
60-----	20	19,409	-67.0		263	24.7
50-----	19	20,521	-62.5		259	19.0
40-----	17	21,915	-58.6		260	14.0
30-----	17	23,738	-54.7		258	15.2
25-----	14	24,906	-53.3		253	13.4
20-----	9	26,350	-50.1			
15-----	6	28,175	-47.7			
10-----						

CANTON IS., PACIFIC AREA (1009 MB.)

Standard pressure surface (mb.)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind Direction	Wind Speed
SURFACE	31	4	26.4	77	82	11.5
1,000--	31	81	25.8	78	82	14.2
950----	31	523	22.4	82	79	21.4
900----	31	1,002	19.1	82	81	22.9
850----	31	1,493	16.5	70	79	21.2
800----	31	2,008	15.2	38	79	14.6
750----	31	2,552	13.5	27	79	9.3
700----	31	3,131	10.8	22	83	7.0
650----	31	3,739	7.2	22	80	7.2
600----	31	4,398	3.3		82	8.0
550----	31	5,095	- .2		99	6.4
500----	31	5,856	- 4.2		91	4.3
450----	31	6,675	- 9.4			.0
400----	31	7,580	-15.3		230	2.5
350----	31	8,576	-22.1		223	7.0
300----	31	9,690	-30.6		217	8.9
250----	31	10,958	-41.1		226	13.2
200----	31	12,437	-53.0		235	19.0
175----	31	13,284	-59.7		252	19.2
150----	31	14,231	-67.0		263	20.8
125----	31	15,310	-75.1		274	20.0
100----	30	16,579	-82.6		271	18.5
80-----	27	17,821	-81.2		259	13.6
70-----	27	18,587	-73.7		263	9.9
60-----	25	19,499	-67.8		265	15.5
50-----	24	20,609	-63.1		264	22.3
40-----	24	21,994	-60.1		263	20.8
30-----	23	23,800	-58.0		266	10.7
25-----	22	24,954	-56.9		123	4.7
20-----	21	26,386	-52.8		86	25.8
15-----	18	28,270	-49.1		92	40.4
10-----						

See reference note at end of table

RAWINSONDE DATA

Average monthly values

JANUARY 1962

CAPE HATTERAS, N. C.
(1020 MB.)

Standard pressure surface (mb)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind	
					Direction	Speed
SURFACE	30	4	6.8	85	327	4.1
1,000--	30	168	7.6	76	336	5.1
950----	30	593	6.3	70	283	6.2
900----	30	1,033	5.4	63	252	12.8
850----	30	1,500	4.3	54	253	17.7
800----	28	1,993	2.5	46	257	23.3
750----	28	2,512	.7	40	253	30.1
700----	28	3,064	- 2.1	38	252	33.8
650----	28	3,645	- 4.9	35	253	39.2
600----	28	4,276	- 8.4	32	253	46.0
550----	28	4,939	-12.3	34	254	50.1
500----	28	5,669	-17.3	32	256	53.8
450----	28	6,446	-22.6		258	58.7
400----	28	7,305	-29.0		258	65.9
350----	28	8,247	-35.6		262	69.4
300----	28	9,301	-43.4		263	78.1
250----	28	10,506	-51.9		265	82.0
200----	28	11,925	-58.8		267	93.7
175----	28	12,762	-59.8		269	90.5
150----	28	13,722	-61.0		268	83.5
125----	28	14,850	-63.2		265	76.0
100----	28	16,216	-64.6		263	64.7
80-----	28	17,579	-64.6		262	49.9
70-----	27	18,404	-63.9		262	41.8
60-----	27	19,348	-61.7		260	36.7
50-----	26	20,488	-58.8		255	32.1
40-----	26	21,897	-56.6		251	29.1
30-----	25	23,738	-53.2		243	26.2
25-----	21	24,919	-51.0		232	25.5
20-----	16	26,397	-47.9		215	24.7
15-----						
10-----						

CARIBOU, ME.
(990 MB.)

Standard pressure surface (mb)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind	
					Direction	Speed
SURFACE	31	191	-14.4	72	251	6.2
1,000--	31	116				
950----	31	504	-14.2	69	262	12.0
900----	31	915	-14.9	66	269	18.5
850----	31	1,347	-15.1	58	273	24.3
800----	31	1,805	-15.8	55	270	28.8
750----	31	2,291	-17.1	52	268	35.4
700----	31	2,807	-18.4	47	265	40.4
650----	31	3,354	-20.4	42	263	46.0
600----	31	3,948	-23.0	41	264	50.5
550----	31	4,576	-26.4	42	262	56.3
500----	31	5,265	-30.2	42	260	59.8
450----	31	6,006	-34.6		257	66.6
400----	31	6,825	-39.6		261	68.2
350----	31	7,728	-45.1		259	73.8
300----	31	8,745	-50.9		260	71.3
250----	31	9,919	-54.7		262	81.4
200----	31	11,343	-56.3		260	77.7
175----	31	12,190	-56.6		260	79.5
150----	30	13,174	-56.3		259	73.6
125----	30	14,332	-56.4		258	87.4
100----	30	15,749	-56.5		257	79.5
80-----	29	17,158	-57.1		255	76.0
70-----	28	18,007	-57.9		254	74.6
60-----	27	18,976	-57.8		259	71.9
50-----	27	20,128	-57.4		253	78.5
40-----	27	21,541	-56.6		255	78.5
30-----	24	23,372	-55.1		250	75.8
25-----	23	24,528	-54.4		250	93.7
20-----	22	25,965	-51.1		247	101.6
15-----	16	27,860	-48.0			
10-----	6	30,671	-42.0			

CHARLESTON, S. C.
(1020 MB.)

Standard pressure surface (mb)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind	
					Direction	Speed
SURFACE	31	13	5.0	83	357	1.4
1,000--	31	178	7.5	77	352	2.1
950----	31	599	8.0	69	251	3.9
900----	31	1,049	7.7	61	240	12.4
850----	31	1,519	6.3	55	244	19.0
800----	31	2,015	4.4	50	246	22.3
750----	31	2,534	2.1	47	246	27.2
700----	31	3,093	- .5	45	248	31.1
650----	31	3,680	- 3.1	37	250	35.9
600----	31	4,313	- 6.5		253	40.8
550----	31	4,982	-10.7		255	46.2
500----	31	5,715	-15.5		256	50.5
450----	31	6,496	-21.2		256	56.9
400----	31	7,361	-27.7		256	61.8
350----	31	8,307	-34.9		258	67.2
300----	31	9,366	-42.6		259	71.9
250----	31	10,575	-51.0		260	80.2
200----	31	12,001	-58.4		264	91.3
175----	30	12,836	-60.1		265	89.6
150----	30	13,794	-61.9		267	90.5
125----	30	14,917	-64.0		265	78.7
100----	29	16,275	-66.4		266	62.8
80-----	29	17,623	-66.6		263	52.7
70-----	29	18,436	-65.7		263	42.7
60-----	29	19,374	-63.0		263	34.0
50-----	29	20,503	-60.0		261	24.3
40-----	28	21,906	-56.9		254	22.3
30-----	28	23,742	-53.6		247	20.4
25-----	27	24,919	-51.7		235	19.6
20-----	27	26,374	-48.6		234	26.6
15-----	18	28,264	-46.3		244	40.0
10-----						

COLD BAY, ALASKA
(1012 MB.)

Standard pressure surface (mb)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind	
					Direction	Speed
SURFACE	30	30	- 5.4	79	15	4.7
1,000--	30	123			78	5.8
950----	30	526	- 5.9	60	58	5.6
900----	30	949	- 8.1	58	65	3.7
850----	30	1,392	- 9.6	51	38	4.7
800----	30	1,859	-10.4	39	49	3.7
750----	30	2,353	-12.0		38	3.9
700----	30	2,880	-14.3		47	3.3
650----	30	3,437	-17.2		74	2.7
600----	30	4,037	-20.9		134	3.9
550----	30	4,669	-25.0		182	2.9
500----	30	5,360	-29.5		188	3.5
450----	30	6,098	-34.6		191	6.0
400----	30	6,919	-39.8		204	6.2
350----	30	7,821	-45.1		198	9.5
300----	30	8,837	-50.3		205	11.5
250----	30	10,016	-53.5		215	16.9
200----	29	11,455	-52.0		213	21.0
175----	28	12,328	-50.0		220	22.3
150----	28	13,338	-49.1		229	21.0
125----	28	14,534	-49.1		231	20.4
100----	28	15,999	-49.0		239	19.8
80-----	28	17,466	-48.2		242	20.6
70-----	28	18,350	-48.0		248	20.6
60-----	27	19,372	-48.2		258	20.2
50-----	27	20,573	-48.0		263	22.5
40-----	25	22,046	-47.3		271	23.3
30-----	22	23,961	-47.2		282	25.8
25-----	19	25,169	-47.2		297	30.9
20-----	15	26,691	-46.1		310	32.8
15-----	5	28,612	-46.3			
10-----						

COLUMBIA, MO.
(992 MB.)

Standard pressure surface (mb)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind	
					Direction	Speed
SURFACE	31	238	- 7.0	80	295	3.1
1,000--	31	172				
950----	31	575	- 5.2	66	288	10.1
900----	31	1,001	- 3.3	61	287	16.1
850----	31	1,454	- 2.9	57	284	19.6
800----	31	1,934	- 3.9	53	286	21.6
750----	31	2,439	- 5.8	48	284	23.3
700----	31	2,980	- 8.1	45	279	27.2
650----	31	3,549	-10.4	39	276	31.5
600----	31	4,166	-14.1	37	276	35.6
550----	31	4,816	-18.1	35	275	38.1
500----	31	5,527	-22.7		277	37.9
450----	31	6,284	-28.1		276	41.6
400----	31	7,128	-34.3		274	47.6
350----	31	8,049	-40.7		275	50.7
300----	31	9,083	-47.3		275	55.4
250----	31	10,271	-53.7		276	49.5
200----	31	11,690	-57.5		275	55.6
175----	31	12,533	-58.1		271	56.9
150----	31	13,503	-58.4		271	56.9
125----	31	14,648	-59.8		271	55.8
100----	31	16,039	-60.5		271	50.9
80-----	31	17,425	-61.2		275	42.4
70-----	31	18,252	-61.5		276	40.8
60-----	31	19,208	-61.9		274	39.2
50-----	30	20,339	-60.5		275	38.3
40-----	28	21,735	-60.4		275	37.7
30-----	14	23,539	-60.1		283	35.0
25-----	[illegible]	24,727	-58.0			
20-----						
15-----						
10-----						

DAYTON, OHIO
(984 MB.)

Standard pressure surface (mb)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind	
					Direction	Speed
SURFACE	31	297	- 5.4	75	211	3.7
1,000--	31	170				
950----	31	573	- 5.7	71	236	9.3
900----	31	998	- 5.1	62	256	19.2
850----	31	1,448	- 5.0	57	264	23.9
800----	31	1,925	- 5.5	50	268	27.4
750----	31	2,427	- 7.3	45	266	30.9
700----	31	2,965	- 9.1	46	267	35.6
650----	31	3,535	-11.6	47	270	39.6
600----	31	4,147	-14.8	43	270	43.5
550----	31	4,798	-19.1	41	268	46.2
500----	31	5,504	-23.4	40	266	51.9
450----	31	6,263	-28.1		267	56.5
400----	31	7,105	-33.6		266	64.1
350----	31	8,029	-40.3		265	70.1
300----	31	9,064	-48.0		263	75.0
250----	31	10,247	-54.7		263	77.5
200----	31	11,663	-57.9		257	77.1
175----	31	12,506	-58.0		258	79.5
150----	31	13,476	-58.6		259	72.9
125----	31	14,621	-59.3		259	68.0
100----	31	16,013	-60.9		260	57.5
80-----	29	17,402	-60.7		263	50.9
70-----	28	18,240	-60.6		267	44.3
60-----	26	19,199	-60.2		268	47.0
50-----	25	20,333	-60.6		268	45.9
40-----	25	21,726	-59.6		267	42.4
30-----	21	23,542	-57.6		264	49.0
25-----	19	24,709	-56.4		256	47.2
20-----	16	26,137	-53.8		252	51.9
15-----	10	27,996	-50.3			
10-----	5	30,509	-47.3			

DENVER, COLO.
(838 MB.)

Standard pressure surface (mb)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind	
					Direction	Speed
SURFACE	31	1,611	-10.7	59	204	3.3
1,000--	31	236				
950----	31	638				
900----	31	1,062				
850----	31	1,503				
800----	31	1,978	- 3.6	40	290	5.4
750----	31	2,488	- 4.3	38	307	8.9
700----	31	3,029	- 6.8	39	299	13.8
650----	31	3,601	- 9.7	39	303	19.6
600----	31	4,218	-13.5	39	299	25.3
550----	31	4,870	-17.7	37	300	27.6
500----	31	5,582	-22.4		304	28.2
450----	31	6,340	-27.8		306	31.1
400----	31	7,183	-33.9		303	37.5
350----	31	8,106	-40.6		294	42.0
300----	31	9,139	-47.8		291	46.2
250----	31	10,322	-55.4		286	49.0
200----	31	11,728	-59.0		283	49.9
175----	31	12,564	-59.5		282	49.4
150----	31	13,529	-59.1		281	49.9
125----	31	14,669	-60.1		284	44.5
100----	31	16,061	-60.2		283	40.2
80-----	31	17,451	-60.9		285	33.6
70-----	31	18,285	-61.2		285	31.9
60-----	31	19,240	-60.7		287	30.3
50-----	30	20,380	-60.8		289	29.0
40-----	30	21,769	-60.7		292	22.7
30-----	27	23,577	-59.1		289	32.8
25-----	27	24,719	-59.8		289	33.4
20-----	24	26,106	-60.1		284	41.8
15-----	13	27,918	-56.3		275	58.7
10-----						

DODGE CITY, KANS.
(928 MB.)

Standard pressure surface (mb)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind	
					Direction	Speed
SURFACE	31	792	- 7.0	79	327	5.4
1,000--	31	208				
950----	31	613				
900----	31	1,036	- 3.2	55	314	8.2
850----	31	1,489	- 2.2	48	316	10.5
800----	31	1,971	- 2.3	43	298	12.4
750----	31	2,482	- 3.6	39	291	16.5
700----	31	3,025	- 6.0	36	291	18.8
650----	31	3,601	- 9.2	36	289	21.6
600----	31	4,217	-12.7	37	282	23.1
550----	31	4,873	-16.8	38	274	27.8
500----	31	5,586	-21.8		281	29.1
450----	31	6,350	-27.2		280	32.3
400----	31	7,194	-33.4		280	39.2
350----	31	8,119	-40.1		282	38.7
300----	30	9,160	-47.2		280	44.9
250----	29	10,356	-54.7		275	51.1
200----	28	11,773	-58.8		274	55.2
175----	28	12,611	-59.6		271	56.2
150----	28	13,574	-59.7		272	52.7
125----	26	14,720	-60.5		276	49.9
100----	25	16,101	-62.4		274	43.5
80-----	24	17,482	-62.4		277	36.3
70-----	24	18,313	-62.1		278	35.6
60-----	23	19,266	-61.4		282	30.5
50-----	22	20,400	-61.7		284	28.0
40-----	21	21,789	-60.4		285	26.4
30-----	19	23,588	-59.6		284	30.7
25-----	15	24,734	-59.0		279	30.1
20-----	12	26,151	-57.6			
15-----	8	27,949	-54.5			
10-----						

EL PASO, TEXAS
(886 MB.)

Standard pressure surface (mb)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind	
					Direction	Speed
SURFACE	30	1,193	0.1	69	25	1.2
1,000--	30	212				
950----	30	626				
900----	30	1,071				
850----	30	1,531	3.0	48	241	.6
800----	30	2,021	1.6	45	263	4.9
750----	30	2,537	- .5	45	260	9.7
700----	30	3,090	- 1.9	42	256	17.1
650----	30	3,672	- 4.6	42	261	21.4
600----	30	4,304	- 8.4	39	265	23.1
550----	30	4,966	-12.5	37	268	26.8
500----	30	5,698	-17.3	35	270	31.7
450----	30	6,474	-22.6		270	33.6
400----	30	7,337	-28.9		270	36.3
350----	30	8,279	-35.8		268	42.4
300----	30	9,334	-43.9		268	46.6
250----	30	10,537	-52.1		266	53.2
200----	30	11,957	-58.9		262	59.3
175----	30	12,792	-60.5		263	59.5
150----	30	13,750	-61.6		264	60.2
125----	29	14,875	-63.4		263	52.8
100----	29	16,237	-65.9		269	43.9
80-----	26	17,582	-66.8		269	37.3
70-----	24	18,398	-65.6		274	29.5
60-----	24	19,332	-64.8		273	22.5
50-----	24	20,451	-62.2		288	17.3
40-----	22	21,838	-60.6		297	11.3
30-----	22	23,642	-57.3		277	15.9
25-----	19	24,800	-56.0		269	25.3
20-----	13	26,234	-54.2		253	27.8
15-----						
10-----						

ELY, NEV.
(812 MB.)

Standard pressure surface (mb)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind	
					Direction	Speed
SURFACE	30	1,908	-10.7	70	188	3.7
1,000--	30	279				
950----	30	683				
900----	30	1,109				
850----	30	1,556				
800----	30	2,029	- 4.7	58		.0
750----	30	2,539	- 3.3	47	344	5.6
700----	30	3,082	- 5.0	44	329	8.9
650----	30	3,656	- 7.7	40	328	15.7
600----	30	4,280	-10.9	39	323	20.6
550----	30	4,934	-14.9	34	318	22.3
500----	30	5,657	-19.6	32	321	25.5
450----	30	6,426	-24.9	32	325	24.5
400----	30	7,278	-31.2		311	19.8
350----	30	8,211	-38.2		315	15.2
300----	30	9,254	-46.2		301	19.4
250----	30	10,443	-54.7		302	24.9
200----	29	11,858	-60.1		291	26.8
175----	29	12,692	-60.5		298	30.1
150----	28	13,646	-59.5		304	31.3
125----	28	14,786	-60.7		303	27.8
100----	28	16,171	-61.5		301	24.9
80-----	28	17,556	-61.4		306	21.8
70-----	28	18,393	-60.9		306	19.6
60-----	28	19,344	-60.7		313	15.7
50-----	28	20,480	-60.3		313	13.2
40-----	28	21,874	-59.6		326	15.2
30-----	25	23,687	-58.6		333	17.1
25-----	25	24,834	-58.5		328	22.5
20-----	23	26,237	-57.6		328	18.5
15-----	7	28,149	-56.6			
10-----						

ENIWETOK, MARSHALL IS.
(1010 MB.)

Standard pressure surface (mb)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind	
					Direction	Speed
SURFACE	30	5	26.9	73	76	15.0
1,000--	30	90	26.3	75	75	17.5
950----	30	536	22.3	83	75	21.0
900----	30	1,011	19.0	81	81	20.8
850----	30	1,501	17.5	56	89	17.9
800----	30	2,019	17.4	26	89	14.8
750----	30	2,568	15.1	19	83	14.2
700----	30	3,148	11.9	17	89	14.0
650----	30	3,764	8.1	19	92	15.9
600----	30	4,420	4.1	19	93	18.1
550----	30	5,117	- .1	18	92	17.9
500----	30	5,879	- 4.4	14	87	19.6
450----	30	6,699	- 9.5	12	81	18.8
400----	30	7,603	-15.3	14	72	17.1
350----	29	8,597	-22.2	14	64	13.4
300----	29	9,711	-30.6	13	65	9.9
250----	29	10,980	-40.6		46	7.2
200----	29	12,460	-52.7		56	7.0
175----	29	13,309	-59.5		58	6.4
150----	29	14,257	-66.9		74	7.8
125----	29	15,337	-74.6		77	12.0
100----	29	16,608	-82.5		83	16.3
80-----	29	17,846	-82.4		79	14.2
70-----	29	18,602	-76.3		69	7.4
60-----	28	19,505	-70.2		292	2.7
50-----	28	20,604	-64.9		269	10.7
40-----	27	21,979	-60.9		275	9.3
30-----	27	23,785	-56.5		73	3.1
25-----	26	24,949	-54.8		86	13.2
20-----	26	26,384	-51.9		90	23.1
15-----	26	28,265	-47.7		90	34.0
10-----	23	30,961	-45.1		91	42.7
7------	21	33,366	-42.4		95	38.9
5------	14	35,658	-38.5		105	39.8
4------	10	37,185	-37.6			

FAIRBANKS, ALASKA
(1004 MB.)

Standard pressure surface (mb)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind	
					Direction	Speed
SURFACE	31	135	-22.2	73	350	1.4
1,000--	31	165			352	1.9
950----	31	557	-13.4	60	211	1.4
900----	31	966	-12.6	52	222	2.9
850----	31	1,402	-12.4	51	214	3.1
800----	31	1,867	-12.5	49	244	4.1
750----	31	2,349	-14.4	45	267	3.9
700----	31	2,878	-17.1	46	273	7.8
650----	31	3,423	-20.1	47	277	8.5
600----	31	4,020	-23.5	47	259	9.5
550----	31	4,645	-27.5	48	272	9.9
500----	31	5,332	-31.8	48	271	13.0
450----	31	6,065	-36.2		273	14.6
400----	31	6,879	-41.7		270	18.8
350----	31	7,773	-47.5		274	24.1
300----	31	8,779	-53.4		273	27.0
250----	31	9,940	-57.7		270	33.0
200----	31	11,346	-57.5		270	35.0
175----	31	12,190	-56.5		272	38.1
150----	31	13,172	-55.1		274	40.4
125----	31	14,336	-55.4		276	44.1
100----	31	15,760	-55.2		283	53.4
80-----	30	17,184	-55.1		282	56.2
70-----	30	18,035	-55.3		285	61.4
60-----	30	19,019	-55.9		286	69.0
50-----	26	20,172	-55.7		291	79.1
40-----	21	21,631	-56.2		291	80.1
30-----	15	23,430	-56.6		299	94.8
25-----	6	24,716	-54.9			
20-----						
15-----						
10-----						

FLINT, MICH.
(990 MB.)

Standard pressure surface (mb)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind	
					Direction	Speed
SURFACE	31	234	- 9.3	81	233	5.6
1,000--	31	151				
950----	31	549	- 9.2	75	253	12.2
900----	31	966	- 9.8	72	262	18.7
850----	31	1,407	-10.0	61	269	22.9
800----	31	1,874	-11.0	56	271	26.0
750----	31	2,371	-11.5	56	271	29.7
700----	31	2,897	-12.8	51	272	32.6
650----	31	3,458	-15.2	46	272	35.8
600----	31	4,062	-18.4	46	274	39.1
550----	31	4,705	-22.1	43	274	45.1
500----	31	5,401	-26.3	44	274	48.2
450----	31	6,153	-31.2	43	275	51.9
400----	31	6,982	-36.7	43	272	57.9
350----	31	7,895	-43.0		271	60.8
300----	31	8,918	-50.0		269	63.5
250----	30	10,087	-55.9		268	66.6
200----	30	11,501	-57.4		266	71.9
175----	30	12,344	-57.6		266	71.1
150----	30	13,317	-57.2		266	66.5
125----	30	14,470	-57.6		265	61.6
100----	30	15,874	-58.5		267	58.5
80-----	29	17,276	-59.1		267	53.6
70-----	29	18,118	-59.7		267	52.8
60-----	29	19,076	-59.9		268	53.2
50-----	29	20,214	-60.2		267	53.0
40-----	29	21,607	-60.2		266	54.6
30-----	27	23,412	-58.1		262	58.7
25-----	27	24,566	-56.1		265	65.7
20-----	16	25,979	-51.9		257	68.6
15-----	7	27,859	-52.2			
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FORT WORTH, TEXAS
(1002 MB.)

Standard pressure surface (mb)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind	
					Direction	Speed
SURFACE	31	180	0.3	72	325	4.3
1,000--	31	196			339	6.2
950----	31	612	2.0	60	298	6.4
900----	31	1,047	3.4	56	277	8.5
850----	31	1,510	2.8	54	268	9.9
800----	31	2,001	1.6	41	267	12.4
750----	31	2,520	.1	38	265	17.9
700----	31	3,071	- 2.0	37	268	21.6
650----	31	3,656	- 5.3	37	268	23.5
600----	31	4,281	- 8.9	37	263	29.1
550----	31	4,948	-13.3	39	263	33.4
500----	31	5,669	-18.0	38	264	38.5
450----	31	6,446	-23.4		267	40.8
400----	31	7,300	-29.8		268	43.3
350----	31	8,239	-36.4		267	48.6
300----	31	9,291	-43.8		269	55.8
250----	31	10,495	-51.6		265	65.5
200----	31	11,919	-58.1		269	69.9
175----	31	12,757	-59.5		268	69.4
150----	31	13,720	-60.4		267	64.7
125----	31	14,850	-62.8		268	60.4
100----	31	16,216	-65.4		266	52.3
80-----	[illegible]	17,571	-65.5		271	37.9
70-----	[illegible]	18,392	-65.3		273	31.1
60-----	26	19,325	-64.0		274	26.2
50-----	26	20,445	-62.9		276	17.9
40-----	25	21,832	-59.7		273	15.3
30-----	24	23,638	-57.4		269	18.8
25-----	23	24,792	-55.8		269	20.6
20-----	19	26,235	-54.2		268	24.9
15-----	12	28,112	-49.7			
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GLASGOW, MONT.
(938 MB.)

Standard pressure surface (mb)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind	
					Direction	Speed
SURFACE	31	696	-13.1	79	301	6.0
1,000--	31	199				
950----	31	586				
900----	31	1,008	- 9.5	66	297	18.7
850----	31	1,451	- 8.2	58	306	28.8
800----	31	1,922	- 9.0	52	309	29.1
750----	31	2,414	-11.6	52	308	31.3
700----	31	2,946	-14.0	53	309	34.0
650----	31	3,499	-16.5	50	309	36.3
600----	31	4,104	-19.5	51	309	41.2
550----	31	4,738	-23.6	52	308	42.4
500----	31	5,437	-28.1	51	310	48.8
450----	31	6,176	-33.1	50	310	52.5
400----	31	7,004	-38.8		312	60.6
350----	31	7,910	-44.7		312	58.7
300----	31	8,927	-51.2		315	65.5
250----	31	10,098	-56.8		314	65.7
200----	31	11,502	-59.4		313	66.5
175----	31	12,338	-59.4		313	59.1
150----	31	13,306	-58.4		310	59.3
125----	30	14,450	-58.0		308	55.6
100----	30	15,853	-59.2		308	55.6
80-----	30	17,249	-59.8		307	57.3
70-----	29	18,085	-60.2		310	53.4
60-----	28	19,054	-60.9		308	57.7
50-----	25	20,182	-61.3		309	54.0
40-----	21	21,595	-61.6		315	61.8
30-----	14	23,432	-63.2		310	55.6
25-----	12	24,577	-62.6			
20-----	[illegible]	26,023	-64.5			
15-----						
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See reference note at end of table

RAWINSONDE DATA

Average monthly values

JANUARY 1962

GRAND JUNCTION, COLO. (857 MB.)

Standard pressure surface (mb.)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind	
					Direction	Speed
SURFACE	31	1,474	- 7.4	73	116	3.1
1,000	31	256				
950	31	660				
900	31	1,085				
850	31	1,534			98	3.9
800	31	2,011	- 5.4	57	132	5.6
750	31	2,516	- 6.0	54	202	2.7
700	31	3,056	- 7.8	50	291	9.1
650	31	3,624	-10.0	47	303	14.8
600	31	4,244	-13.1		311	17.7
550	31	4,895	-16.9		306	24.1
500	31	5,612	-21.3		303	28.2
450	31	6,372	-26.6		303	31.7
400	31	7,222	-33.1		298	31.3
350	31	8,148	-39.7		302	34.6
300	31	9,185	-47.2		300	37.9
250	31	10,371	-54.7		299	42.0
200	31	11,779	-60.0		296	44.7
175	31	12,612	-59.8		296	46.6
150	31	13,577	-58.8		293	45.5
125	31	14,720	-59.7		295	40.4
100	30	16,117	-61.5		290	35.9
80	30	17,496	-62.3		291	32.6
70	29	18,334	-61.9		294	30.5
60	29	19,284	-61.2		304	28.0
50	26	20,417	-60.2		300	27.2
40	25	21,804	-60.3		305	23.5
30	23	23,608	-60.1		308	29.5
25	20	24,738	-59.3		305	35.0
20	12	26,206	-56.5		310	25.8
15	7	28,064	-55.6			
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GREAT FALLS, MONT. (891 MB.)

Standard pressure surface (mb.)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind	
					Direction	Speed
SURFACE	31	1,123	- 7.6	65	232	11.7
1,000	31	213				
950	31	616				
900	31	1,041				
850	31	1,489	- 5.7	49	254	22.2
800	31	1,961	- 8.2	52	281	20.8
750	31	2,454	-10.2	52	296	22.7
700	31	2,991	-11.9	52	301	25.5
650	31	3,552	-14.0	50	304	29.3
600	31	4,160	-17.4	49	306	32.3
550	31	4,800	-21.5	49	306	36.9
500	31	5,503	-26.1	47	306	41.4
450	31	6,251	-31.0	42	306	46.8
400	31	7,085	-36.4	42	307	54.6
350	31	8,000	-42.5		312	59.3
300	31	9,025	-49.8		310	63.9
250	31	10,198	-56.9		311	64.3
200	31	11,599	-59.9		309	51.9
175	31	12,434	-59.7		306	49.5
150	31	13,399	-59.2		307	50.9
125	31	14,544	-58.8		306	51.3
100	31	15,945	-59.3		305	47.0
80	31	17,340	-59.5		302	45.5
70	30	18,190	-59.7		305	45.9
60	28	19,156	-60.7		306	46.6
50	24	20,292	-61.1		312	48.6
40	19	21,722	-61.2		315	49.0
30	9	23,551	-60.5			
25						
20						
15						
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GREEN BAY, WIS. (992 MB.)

Standard pressure surface (mb.)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind	
					Direction	Speed
SURFACE	31	210	-13.3	71	281	4.7
1,000	31	147				
950	31	539	-12.5	68	291	11.5
900	31	951	-12.3	64	296	13.4
850	31	1,387	-12.3	60	295	17.3
800	31	1,851	-12.4	54	293	22.2
750	31	2,344	-12.6	50	293	26.4
700	31	2,870	-13.9	47	291	31.9
650	31	3,431	-16.4	48	290	35.6
600	31	4,029	-19.5	49	287	39.4
550	31	4,668	-23.3	49	285	41.4
500	31	5,363	-27.4	48	283	46.0
450	31	6,112	-32.2	48	283	49.5
400	31	6,936	-38.0		281	53.8
350	31	7,842	-44.5		278	60.8
300	31	8,860	-51.0		275	63.1
250	31	10,029	-57.0		273	61.2
200	31	11,435	-57.9		272	65.7
175	31	12,278	-57.2		271	64.3
150	31	13,254	-56.4		271	65.1
125	31	14,409	-57.3		274	63.1
100	31	15,815	-58.7		272	63.0
80	30	17,215	-59.4		273	57.5
70	30	18,051	-60.0		272	58.5
60	29	19,005	-60.4		271	61.0
50	26	20,144	-60.4		274	59.7
40	23	21,531	-62.2		272	61.8
30	19	23,329	-61.2		268	71.5
25	16	24,469	-60.7		268	73.3
20	7	25,813	-57.8			
15						
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GREENSBORO, N. C. (989 MB.)

Standard pressure surface (mb.)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind	
					Direction	Speed
SURFACE	31	273	- 0.6	86	291	1.9
1,000	31	181				
950	31	594	1.6	64	292	5.1
900	31	1,029	1.0	61	271	9.9
850	31	1,489	1.0	54	267	15.0
800	31	1,976	.4	48	259	22.3
750	30	2,492	- 1.5	41	259	27.6
700	30	3,041	- 3.7	44	259	34.8
650	30	3,623	- 6.6	47	261	41.2
600	30	4,246	- 9.6	42	259	44.5
550	30	4,909	-13.6	37	259	50.5
500	30	5,632	-18.3	34	261	54.4
450	29	6,400	-24.4	37	263	61.0
400	29	7,257	-30.3	37	263	67.0
350	29	8,193	-37.2		263	73.6
300	29	9,241	-44.9		263	80.8
250	29	10,438	-52.8		266	86.3
200	28	11,857	-59.0		269	92.1
175	28	12,694	-59.7		270	94.6
150	28	13,655	-60.8		270	90.5
125	27	14,786	-62.5		270	80.2
100	26	16,161	-64.4		267	72.5
80	26	17,523	-64.0		265	53.4
70	25	18,344	-63.8		235	43.5
60	25	19,290	-62.1		263	42.2
50	25	20,422	-60.2		259	40.4
40	24	21,820	-57.9		254	38.1
30	23	23,648	-54.9		251	36.1
25	22	24,824	-53.0		249	42.0
20	20	26,277	-50.2		237	43.1
15	8	28,182	-46.3			
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GUAM, MARIANA IS. (998 MB.)

Standard pressure surface (mb.)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind	
					Direction	Speed
SURFACE	31	111	23.5	88	76	4.7
1,000	31	97				
950	31	546	21.9	82	79	16.5
900	31	1,014	19.1	78	81	16.3
850	31	1,505	17.6	60	87	14.4
800	31	2,023	15.9	45	93	13.2
750	31	2,569	13.5	35	95	13.2
700	31	3,147	10.6		105	10.7
650	31	3,762	7.0	29	109	8.7
600	31	4,414	2.9		110	13.8
550	31	5,112	- 1.1		128	9.7
500	31	5,868	- 5.1		126	10.9
450	31	6,688	- 9.7		116	8.5
400	31	7,590	-15.3		126	8.2
350	31	8,586	-22.1		123	5.2
300	31	9,701	-30.2		152	2.5
250	31	10,970	-40.3		204	3.1
200	31	12,452	-52.4		192	4.7
175	31	13,301	-59.2		192	4.7
150	31	14,250	-66.6		181	6.2
125	31	15,330	-74.7		166	9.7
100	31	16,597	-83.1		154	16.1
80	30	17,829	-83.6		134	13.4
70	29	18,582	-76.9		103	6.0
60	29	19,487	-70.2		337	1.9
50	29	20,585	-65.3		265	5.2
40	29	21,957	-61.0		270	4.5
30	28	23,766	-56.1		69	4.1
25	27	24,933	-53.9		88	10.3
20	27	26,375	-51.6		47	16.7
15	24	28,250	-48.8		83	23.1
10	11	30,919	-45.4			

HILO, HAWAII (1015 MB.)

Standard pressure surface (mb.)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind	
					Direction	Speed
SURFACE	31	11	19.0	[illegible]	219	6.6
1,000	31	136	20.6	76	203	7.0
950	31	580	18.5	76	168	8.5
900	31	1,042	15.4	75	165	9.1
850	31	1,525	12.8	75	167	9.3
800	31	2,034	11.0	58	154	7.2
750	31	2,572	9.1	46	147	4.5
700	31	3,140	6.2	38	210	2.7
650	31	3,743	2.6	36	245	4.1
600	31	4,387	- 1.5	31	264	6.4
550	31	5,070	- 5.9		280	10.5
500	31	5,816	-10.7		284	14.8
450	31	6,616	-16.7		283	17.5
400	31	7,494	-23.2		282	19.6
350	31	8,458	-30.3		291	26.0
300	31	9,535	-38.3		293	33.2
250	31	10,766	-46.7		294	43.9
200	31	12,221	-54.2		295	56.7
175	31	13,068	-58.6		290	57.5
150	31	14,025	-63.3		290	52.8
125	31	15,130	-68.9		290	44.9
100	31	16,444	-74.6		280	30.9
80	30	17,740	-74.0		282	19.0
70	30	18,523	-71.4		275	11.1
60	30	19,442	-67.5		249	4.3
50	30	20,552	-63.0		256	1.2
40	30	21,937	-59.6		41	2.5
30	30	23,751	-56.2		56	5.2
25	30	24,916	-54.0		54	6.8
20	29	26,355	-51.6		51	7.4
15	24	28,230	-49.6		85	7.6
10						

HUNTINGTON, W. VA. (991 MB.)

Standard pressure surface (mb.)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind	
					Direction	Speed
SURFACE	30	246	- 2.3	69	225	1.9
1,000	30	167				
950	30	576	- 2.8	63	237	8.9
900	30	1,004	- 3.4	62	256	15.2
850	30	1,456	- 3.7	57	260	21.4
800	30	1,935	- 4.0	49	263	23.9
750	30	2,443	- 5.5	45	265	30.3
700	30	2,982	- 7.7	46	265	34.0
650	30	3,553	-10.2	43	264	37.5
600	30	4,167	-13.6	45	266	45.5
550	30	4,820	-17.3	48	268	49.9
500	30	5,533	-21.4	44	267	56.2
450	30	6,297	-26.4	42	267	63.3
400	30	7,145	-32.4	43	265	68.0
350	30	8,074	-39.2		267	72.3
300	30	9,113	-47.0		265	70.5
250	30	10,301	-54.3		264	75.0
200	30	11,716	-58.2		263	72.5
175	30	12,556	-58.6		268	75.8
150	29	13,521	-59.4		265	73.4
125	29	14,659	-60.8		263	66.1
100	29	16,044	-61.7		261	60.8
80	29	17,424	-62.2		263	54.2
70	29	18,249	-61.9		265	48.0
60	29	19,206	-61.6		267	44.9
50	26	20,333	-60.2		265	40.4
40	24	21,741	-59.0		263	38.9
30	23	23,552	-57.4		263	41.8
25	22	24,716	-54.7		259	45.1
20	20	26,142	-53.2		252	49.9
15	13	27,998	-47.4			
10						

INTERNAT. FALLS, MINN. (973 MB.)

Standard pressure surface (mb.)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind	
					Direction	Speed
SURFACE	31	360	-20.6	64	259	3.3
1,000	31	155				
950	31	536	-19.2	66	274	5.6
900	31	941	-17.3	[illegible]	286	14.2
850	31	1,370	-16.1	66	291	18.8
800	31	1,826	-15.7	59	294	22.9
750	31	2,313	-16.2	54	297	26.8
700	31	2,831	-17.4	56	299	31.5
650	31	3,380	-19.6	57	294	34.2
600	31	3,976	-22.3	54	294	39.8
550	31	4,604	-25.9	50	293	45.1
500	31	5,295	-30.1	47	292	47.4
450	31	6,028	-34.8		290	51.7
400	31	6,852	-40.5		289	58.9
350	31	7,749	-46.6		288	61.6
300	31	8,757	-53.0		288	61.0
250	31	9,918	-57.6		285	62.0
200	31	11,322	-58.2		285	61.8
175	31	12,166	-56.6		284	62.6
150	31	13,144	-56.7		285	61.8
125	31	14,298	-57.2		283	59.5
100	31	15,704	-58.8		284	63.5
80	31	17,103	-59.8		281	61.0
70	28	17,940	-60.1		281	64.9
60	25	18,923	-60.7		280	63.9
50	23	20,080	-61.5		284	62.0
40	20	21,489	-62.1		284	65.9
30	15	23,336	-62.4		287	68.0
25	10	24,465	-62.0			
20	[illegible]	25,922	-62.5			
15						
10						

JACKSON, MISS. (1011 MB.)

Standard pressure surface (mb.)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind	
					Direction	Speed
SURFACE	31	94	2.9	81	340	1.6
1,000	31	180	3.5	74	358	1.0
950	31	598	4.3	68	278	4.7
900	31	1,038	4.4	61	276	8.7
850	31	1,504	3.7	52	269	12.0
800	31	1,995	2.1	46	266	18.5
750	31	2,517	.1	45	265	23.5
700	31	3,065	- 1.5	40	265	27.0
650	31	3,650	- 4.5	36	270	30.3
600	31	4,279	- 7.7	34	265	33.8
550	31	4,946	-11.7		265	36.9
500	31	5,674	-16.6		261	38.5
450	31	6,451	-22.0		257	43.3
400	31	7,314	-28.2		255	46.6
350	31	8,258	-35.3		248	56.0
300	31	9,314	-43.4		255	63.1
250	31	10,519	-51.2		260	64.7
200	31	11,949	-57.2		259	72.3
175	31	12,790	-59.4		260	74.8
150	31	13,752	-61.0		262	72.7
125	31	14,879	-63.7		261	64.5
100	30	16,239	-66.7		259	56.2
80	27	17,590	-66.0		262	37.3
70	27	18,409	-65.8		270	28.8
60	27	19,337	-64.2		273	20.2
50	26	20,461	-62.1		266	16.3
40	24	21,852	-59.1		262	15.3
30	24	23,668	-56.0		264	20.8
25	23	24,835	-54.3		266	19.4
20	13	26,285	-52.8			
15	5	28,198	-44.1			
10						

JACKSONVILLE, FLA. (1022 MB.)

Standard pressure surface (mb.)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind	
					Direction	Speed
SURFACE	31	5	8.2	92	311	2.7
1,000	31	183	9.9	80	310	3.1
950	31	611	10.3	73	231	6.0
900	31	1,060	9.1	64	232	13.0
850	31	1,533	7.5	56	239	15.9
800	31	2,031	6.1	49	244	19.4
750	31	2,555	3.7	43	247	22.7
700	31	3,116	1.4	37	248	25.6
650	31	3,704	- 1.3		251	31.9
600	31	4,344	- 4.7		255	36.5
550	31	5,014	- 9.0		256	41.0
500	31	5,755	-14.1		254	45.1
450	31	6,537	-19.8		257	46.8
400	31	7,410	-26.2		260	53.0
350	31	8,361	-33.2		258	59.3
300	31	9,427	-41.0		263	67.8
250	30	10,638	-49.8		261	80.2
200	28	12,079	-57.4		267	91.5
175	28	12,916	-60.1		269	92.1
150	28	13,871	-62.9		269	85.9
125	28	14,986	-66.1		269	73.3
100	28	16,328	-69.1		266	61.0
80	27	17,662	-69.8		265	51.1
70	27	18,463	-68.2		263	40.8
60	27	19,389	-65.8		265	30.7
50	26	20,510	-69.8		261	23.7
40	24	21,907	-57.1		253	15.3
30	24	23,744	-53.5		251	12.0
25	21	24,919	-51.9		242	10.7
20	17	26,368	-48.6		226	14.6
15	9	28,257	-45.1			
10	6	30,984	-38.2			

JOHNSTON IS., PACIFIC AREA (1013 MB.)

Standard pressure surface (mb.)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind	
					Direction	Speed
SURFACE	31	3	24.8	79	93	7.6
1,000	31	117	23.6	78	93	8.2
950	31	561	20.2	78	95	8.9
900	31	1,029	17.0	77	107	8.0
850	31	1,515	14.2	72	126	6.8
800	31	2,027	13.0	52	164	4.1
750	31	2,566	10.8	34	204	3.9
700	31	3,140	8.6		249	3.5
650	31	3,741	5.4		288	5.6
600	31	4,398	1.6		298	9.3
550	31	5,082	- 2.8		307	15.3
500	31	5,842	- 7.8		307	18.1
450	31	6,648	-13.0		304	22.3
400	31	7,541	-19.1		305	28.0
350	31	8,521	-25.9		311	35.6
300	31	9,621	-33.2		315	41.8
250	31	10,878	-42.3		312	47.0
200	31	12,352	-53.0		309	49.4
175	31	13,201	-59.2		309	47.2
150	31	14,151	-65.9		311	45.7
125	31	15,240	-72.3		309	41.0
100	31	16,531	-78.7		307	31.3
80	31	17,798	-78.2		309	18.5
70	30	18,565	-75.1		314	10.7
60	29	19,466	-70.2		299	4.3
50	29	20,564	-64.9		259	4.1
40	28	21,944	-58.9		242	2.9
30	26	23,763	-55.1		8	2.7
25	26	24,933	-53.2		56	9.3
20	22	26,382	-50.9		60	12.8
15	17	28,279	-48.3			
10						
7						
5						
4						

KING SALMON, ALASKA (1014 MB.)

Standard pressure surface (mb.)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind	
					Direction	Speed
SURFACE	31	15	-13.6	69	27	3.7
1,000	31	119			23	4.5
950	31	516	- 9.1	54	36	6.6
900	31	934	- 7.9	48	36	7.2
850	31	1,378	- 8.5	45	44	5.8
800	31	1,847	- 9.8	45	26	5.2
750	31	2,344	-11.4	41	342	1.9
700	31	2,871	-13.6		264	2.1
650	31	3,429	-16.5		285	3.9
600	31	4,030	-19.8		260	3.9
550	31	4,665	-23.7		239	5.8
500	31	5,361	-28.2		228	8.4
450	31	6,102	-33.6		222	11.3
400	31	6,925	-39.3		220	11.1
350	31	7,828	-45.3		214	14.8
300	31	8,843	-51.3		221	16.9
250	31	10,016	-54.5		232	22.0
200	31	11,447	-53.7		236	28.8
175	30	12,313	-52.3		247	29.5
150	29	13,314	-50.7		251	30.1
125	27	14,493	-50.7		254	32.6
100	27	15,948	-50.2		260	32.6
80	26	17,401	-50.4		267	35.9
70	26	18,275	-50.5		272	37.7
60	25	19,290	-50.4		276	40.6
50	24	20,479	-49.9		278	43.1
40	20	21,922	-50.2		282	49.0
30	18	23,795	-50.5		296	55.6
25	14	25,025	-50.0		301	57.3
20	13	26,505	-49.4		305	65.5
15						
10						
7						
5						
4						

KOROR, CAROLINE IS. (1005 MB.)

Standard pressure surface (mb.)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind	
					Direction	Speed
SURFACE	30	30	25.6	90	64	6.0
1,000	30	75	25.4	89	64	7.2
950	30	516	23.2	85	75	15.9
900	30	998	20.5	82	83	18.3
850	30	1,491	17.8	79	94	17.3
800	30	2,009	15.5	71	94	16.7
750	30	2,557	13.1	64	97	17.1
700	30	3,134	10.1	63	101	16.1
650	30	3,746	6.8	60	102	17.1
600	30	4,403	2.9	63	101	17.7
550	29	5,100	- .8	61	102	17.9
500	29	5,861	- 4.7	57	108	17.3
450	29	6,680	- 9.5	54	105	20.6
400	29	7,586	-14.8	46	109	18.5
350	29	8,584	-21.3	42	109	20.4
300	29	9,702	-29.6		116	20.6
250	29	10,976	-40.0		124	19.4
200	29	12,459	-52.2		132	21.2
175	29	13,310	-59.1		130	22.2
150	29	14,259	-66.6		134	23.5
125	28	15,341	-75.0		132	25.1
100	25	16,607	-83.4		125	31.7
80	19	17,844	-79.4		119	20.4
70	17	18,611	-74.6		236	5.8
60	16	19,517	-70.0		298	10.7
50	15	20,613	-65.9			
40	15	21,977	-63.4		281	16.1
30	14	23,761	-58.8		278	9.1
25	13	24,911	-56.6		66	8.5
20	12	26,326	-55.0			
15	11	28,179	-52.4			
10	5	30,866	-47.9			
7						
5						
4						

KOTZEBUE, ALASKA (1021 MB.)

Standard pressure surface (mb.)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind	
					Direction	Speed
SURFACE	29	5	-19.1	77	131	8.0
1,000	29	159	-14.8	66	157	7.0
950	29	549	-13.0	61	184	5.6
900	29	961	-13.4	56	217	7.4
850	29	1,395	-14.5	53	219	8.5
800	29	1,853	-15.8	51	225	9.3
750	29	2,341	-17.3	50	232	9.7
700	29	2,853	-19.7	47	235	11.7
650	29	3,398	-22.6	46	243	13.6
600	29	3,983	-25.9	43	240	15.5
550	29	4,604	-29.6	43	240	16.1
500	29	5,282	-34.0		232	20.4
450	29	6,006	-38.6		228	22.5
400	29	6,813	-43.5		229	25.5
350	29	7,701	-48.6		239	27.8
300	27	8,702	-54.2		255	30.3
250	27	9,858	-58.2		257	31.1
200	27	11,261	-58.4		256	34.2
175	27	12,103	-57.0		255	36.1
150	26	13,094	-55.2		257	37.7
125	25	14,253	-54.4		251	45.1
100	24	15,673	-54.1		256	50.5
80	24	17,104	-54.5		263	56.3
70	24	17,962	-54.8		268	62.4
60	22	18,943	-54.8		268	65.9
50	22	20,108	-55.1		272	75.0
40	20	21,560	-54.4		275	80.1
30	18	23,405	-55.8		278	89.4
25	14	24,553	-55.8		282	97.3
20	10	26,125	-54.2			
15	5	27,997	-53.4			
10						
7						
5						
4						

KWAJALEIN, MARSHALL IS. (1009 MB.)

Standard pressure surface (mb.)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind	
					Direction	Speed
SURFACE	31	4	26.9	79	66	16.5
1,000	31	81	26.4	80	66	17.7
950	31	528	22.8	88	71	20.4
900	31	1,004	19.6	89	81	21.0
850	31	1,497	17.6	78	91	19.6
800	31	2,015	16.5	54	93	18.1
750	31	2,560	13.9	48	92	19.0
700	31	3,143	11.1	43	89	19.2
650	31	3,755	7.5	43	90	20.4
600	31	4,413	3.6	38	89	21.4
550	31	5,110	.0	33	88	22.3
500	31	5,872	- 4.5	29	85	24.7
450	31	6,689	- 9.2	26	81	24.1
400	31	7,597	-15.2	27	75	21.6
350	30	8,591	-22.2	28	68	17.9
300	30	9,706	-30.5	29	59	11.9
250	30	10,974	-40.6		63	7.8
200	30	12,454	-52.6		75	6.6
175	30	13,302	-59.5		70	8.5
150	30	14,249	-66.9		63	11.1
125	29	15,328	-74.5		62	16.7
100	26	16,601	-81.3		69	22.7
80	20	17,846	-81.0		82	11.3
70	20	18,608	-75.3		9	2.1
60	20	19,514	-69.5		272	13.8
50	17	20,618	-65.0		272	17.7
40	16	21,988	-60.7		281	16.9
30	16	23,793	-57.8		309	3.9
25	16	24,949	-55.4		86	11.7
20	16	26,380	-53.4		90	31.5
15	16	28,251	-49.5		93	44.7
10	13	30,940	-46.2		90	19.9
7	12	33,323	-43.0		95	19.7
5	9	35,593	-38.5			
4	8	37,148	-37.0			

See reference note at end of table

RAWINSONDE DATA

Average monthly values

JANUARY 1962

LAKE CHARLES, LA. (1022 MB.)

Standard pressure surface (mb)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind Direction	Wind Speed
SURFACE	30	5	5.4	81	25	3.3
1,000	30	180	7.7	68	6	1.4
950	30	604	7.6	62	240	3.1
900	30	1,051	7.2	49	250	9.3
850	30	1,521	6.2	45	248	11.1
800	30	2,017	4.6	46	251	15.2
750	30	2,544	2.5	37	256	18.5
700	30	3,098	.2	32	257	21.0
650	30	3,689	-2.5		260	23.5
600	30	4,321	-6.0		259	27.6
550	30	4,995	-10.2		260	31.7
500	30	5,727	-14.9		259	38.1
450	30	6,516	-20.2		255	42.4
400	30	7,380	-26.8		251	49.5
350	30	8,331	-33.7		257	58.5
300	30	9,395	-41.2		259	70.3
250	30	10,612	-49.2		260	75.0
200	29	12,049	-56.6		258	84.7
175	29	12,891	-59.1		257	80.1
150	29	13,852	-61.7		258	77.7
125	27	14,974	-65.3		257	71.3
100	26	16,320	-67.8		260	63.3
80	20	17,659	-68.9		263	43.1
70	20	18,468	-68.5		264	35.4
60	20	19,385	-66.7		268	30.3
50	20	20,495	-63.3		262	22.0
40	18	21,872	-60.7		259	22.3
30	16	23,678	-56.9		262	21.8
25	13	24,848	-55.2		258	22.5
20	10	26,286	-53.9			
15	6	28,161	-51.2			

LANDER, WYO. (830 MB.)

Standard pressure surface (mb)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind Direction	Wind Speed
SURFACE	31	1,696	-14.7	60	163	0.8
1,000	31	263				
950	31	656				
900	31	1,072				
850	31	1,514				
800	31	1,978	-8.0	49		.0
750	31	2,479	-7.6	44	326	5.2
700	31	3,018	-8.2	41	311	14.0
650	31	3,587	-10.5	40	309	23.9
600	31	4,204	-14.0	41	308	26.6
550	31	4,853	-18.1	39	307	31.1
500	31	5,566	-23.2	39	307	35.6
450	31	6,325	-28.5	36	305	36.3
400	31	7,164	-34.5		305	40.8
350	31	8,084	-41.5		302	43.9
300	31	9,114	-48.6		299	46.2
250	31	10,293	-56.1		285	50.9
200	31	11,693	-60.6		294	44.3
175	31	12,535	-59.9		293	48.4
150	31	13,491	-58.8		289	47.0
125	30	14,647	-58.9		287	43.1
100	30	16,044	-59.6		287	41.0
80	30	17,434	-60.8		295	37.5
70	30	18,266	-60.8		295	37.7
60	30	19,222	-60.5		295	35.8
50	30	20,358	-60.3		297	36.3
40	28	21,742	-60.2		305	36.3
30	21	23,500	-61.7		297	41.4
25	14	24,659	-62.6		310	47.4
20	9	26,125	-61.3			
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LAS VEGAS, NEV. (945 MB.)

Standard pressure surface (mb)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind Direction	Wind Speed
SURFACE	31	660	3.3	43	313	2.9
1,000	31	198				
950	31	617			312	3.3
900	31	1,061	6.2	34	354	11.3
850	31	1,528	3.8	35	358	11.9
800	31	2,019	1.9	35	1	9.1
750	31	2,534	-.3	35	344	8.2
700	31	3,087	-2.7	36	334	9.9
650	31	3,669	-5.6	33	325	11.9
600	31	4,296	-9.2	34	323	15.7
550	31	4,956	-13.5		317	16.3
500	31	5,682	-18.3		320	22.0
450	31	6,452	-24.0		313	22.9
400	31	7,309	-30.6		309	22.0
350	31	8,244	-37.6		309	27.2
300	31	9,289	-45.5		309	28.6
250	31	10,484	-53.3		303	33.4
200	31	11,897	-59.7		294	38.1
175	31	12,730	-60.3		290	38.1
150	31	13,692	-60.0		287	38.3
125	31	14,827	-61.5		291	35.0
100	29	16,210	-63.0		291	29.1
80	29	17,584	-62.4		297	22.3
70	28	18,415	-62.1		299	17.3
60	28	19,365	-62.0		309	14.8
50	28	20,496	-60.6		320	13.6
40	24	21,898	-58.9		339	12.8
30	22	23,697	-57.6		329	16.5
25	15	24,835	-56.4		328	17.3
20	5	26,198	-54.7			
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LIHUE, HAWAII (1011 MB.)

Standard pressure surface (mb)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind Direction	Wind Speed
SURFACE	31	36	20.9	83	207	2.9
1,000	31	128	21.3	78	183	3.3
950	31	569	18.3	79	183	6.6
900	31	1,034	14.9	80	194	8.0
850	31	1,516	12.2	75	201	8.5
800	31	2,023	10.4	60	215	10.3
750	31	2,556	8.3	43	221	12.6
700	31	3,127	5.6	35	231	14.6
650	31	3,728	1.8	35	238	16.5
600	31	4,371	-2.4	34	254	19.0
550	31	5,052	-6.7	35	263	22.9
500	31	5,794	-11.5	36	271	26.0
450	31	6,588	-17.0	37	274	28.2
400	31	7,468	-23.4	35	280	31.5
350	31	8,431	-30.6	36	285	36.5
300	31	9,509	-38.7		292	39.8
250	30	10,743	-47.2		298	51.5
200	29	12,197	-54.9		298	64.7
175	29	13,043	-59.1		293	64.9
150	28	13,996	-63.7		291	61.2
125	28	15,104	-68.1		290	51.3
100	27	16,422	-72.9		285	40.4
80	24	17,731	-73.0		284	22.3
70	24	18,519	-69.4		285	11.5
60	22	19,450	-66.6		228	1.7
50	22	20,564	-62.5		113	3.9
40	20	21,954	-57.8		96	8.9
30	19	23,784	-54.9		80	8.7
25	19	24,954	-53.4		65	14.4
20	17	26,403	-50.8		73	16.1
15	13	28,297	-47.6			

LITTLE ROCK, ARK. (1014 MB.)

Standard pressure surface (mb)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind Direction	Wind Speed
SURFACE	31	79	-0.3	78	325	2.7
1,000	31	188	.5	70	325	3.1
950	31	602	.5	61	283	7.2
900	31	1,035	1.7	60	275	8.7
850	31	1,496	1.6	59	275	12.4
800	31	1,984	-.1	55	275	18.3
750	31	2,497	-2.4	51	272	22.5
700	31	3,045	-4.5	51	266	26.2
650	31	3,620	-7.3	45	272	29.1
600	31	4,245	-10.5	39	266	33.2
550	31	4,907	-14.3	40	268	38.5
500	31	5,628	-19.1	38	269	42.4
450	31	6,401	-24.3		272	47.0
400	31	7,253	-30.5		270	49.5
350	31	8,189	-37.3		261	47.6
300	31	9,237	-44.6		259	49.5
250	31	10,438	-51.9		260	48.8
200	31	11,863	-57.7		266	46.2
175	29	12,699	-58.5		269	47.4
150	29	13,666	-59.9		268	43.9
125	28	14,801	-61.4		271	45.1
100	22	16,164	-62.4			
80	18	17,541	-62.9			
70	18	18,369	-63.3		275	24.5
60	17	19,315	-62.1		284	20.6
50	17	20,443	-61.7		294	16.3
40	15	21,833	-59.1			
30	12	23,645	-58.1			
25	11	24,802	-57.8			
20	[illegible]	26,279	-54.3			
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McGRATH, ALASKA (1008 MB.)

Standard pressure surface (mb)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind Direction	Wind Speed
SURFACE	31	103	-23.9	65	291	1.2
1,000	31	161			308	2.9
950	31	547	-13.9	54	17	5.2
900	31	960	-12.3	50	50	6.6
850	31	1,398	-10.7	45	76	1.9
800	31	1,864	-11.4	41	137	1.0
750	31	2,353	-13.7	40	239	2.5
700	31	2,878	-16.4		226	3.9
650	31	3,433	-19.6		233	6.8
600	31	4,022	-23.3		239	3.3
550	31	4,647	-27.0		232	9.1
500	31	5,336	-31.2		263	8.2
450	31	6,068	-35.8		247	13.0
400	31	6,886	-41.1		252	14.0
350	31	7,781	-46.6		252	19.0
300	31	8,793	-52.2		251	21.8
250	31	9,960	-56.3		253	23.9
200	31	11,377	-55.9		252	28.0
175	29	12,213	-53.7		263	29.9
150	29	13,205	-52.9		260	31.3
125	29	14,384	-52.2		262	35.8
100	29	15,828	-52.1		264	41.0
80	29	17,271	-52.4		271	47.0
70	28	18,127	-52.7		272	52.3
60	27	19,123	-52.7		276	55.8
50	27	20,298	-53.2		277	60.8
40	24	21,731	-52.7		286	69.0
30	21	23,649	-51.9		291	78.1
25	21	24,829	-51.9		293	81.8
20	17	26,281	-51.8		300	84.5
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MAJURO, MARSHALL IS. (1009 MB.)

Standard pressure surface (mb)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind Direction	Wind Speed
SURFACE	30	3	27.1	84	68	10.7
1,000	30	79	26.5	85	69	13.2
950	30	527	23.3	86	71	19.0
900	30	1,004	20.3	85	82	19.6
850	30	1,497	17.7	81	87	19.8
800	30	2,016	15.7	72	86	19.8
750	30	2,563	13.1	66	88	21.2
700	30	3,141	10.2	56	91	21.2
650	30	3,753	7.0	51	91	22.9
600	30	4,410	3.3	46	88	25.0
550	30	5,104	-.6	39	85	24.9
500	30	5,868	-4.8		80	24.3
450	30	6,688	-9.4		78	24.1
400	30	7,592	-15.4		74	22.7
350	30	8,587	-22.0		69	18.1
300	29	9,704	-30.3		64	10.9
250	29	10,973	-40.6		62	7.4
200	28	12,459	-52.5		54	6.4
175	28	13,309	-59.5		56	9.3
150	28	14,257	-67.1		53	14.4
125	28	15,336	-75.0		52	18.1
100	28	16,605	-82.8		60	19.6
80	27	17,842	-82.3		62	8.7
70	26	18,604	-75.0		269	2.3
60	25	19,511	-69.8		275	14.4
50	25	20,610	-65.1		274	23.1
40	25	21,985	-61.1		277	22.7
30	24	23,789	-57.3		239	3.7
25	24	24,948	-54.9		84	10.1
20	24	26,381	-52.6		86	29.9
15	21	28,246	-48.7		89	41.6
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MEDFORD, OREG. (979 MB.)

Standard pressure surface (mb)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind Direction	Wind Speed
SURFACE	31	401	-1.8	89	296	1.0
1,000	31	234				
950	31	650	.5	78	292	2.1
900	31	1,079	1.9	63	189	.6
850	31	1,541	2.1	52	316	1.2
800	31	2,029	.4	46	322	4.9
750	31	2,541	-1.3	43	327	10.1
700	31	3,092	-4.2	38	324	13.6
650	31	3,669	-7.3	31	324	17.1
600	31	4,293	-10.8	34	311	21.4
550	31	4,951	-15.0	37	314	26.0
500	31	5,671	-19.7	37	313	26.2
450	31	6,436	-25.3	37	211	29.0
400	31	7,289	-31.6		311	29.3
350	31	8,221	-38.4		312	30.1
300	31	9,265	-46.0		311	32.4
250	31	10,456	-54.2		313	36.1
200	30	11,870	-59.9		312	38.7
175	30	12,702	-60.8		309	36.7
150	30	13,662	-60.5		307	36.1
125	30	14,801	-59.8		309	36.5
100	29	16,198	-61.0		309	29.5
80	28	17,584	-60.3		317	27.0
70	28	18,422	-59.9		321	24.1
60	28	19,384	-59.1		327	21.2
50	28	20,531	-58.2		331	21.6
40	28	21,938	-58.3		337	24.5
30	25	23,756	-57.8		347	28.0
25	20	24,936	-57.5		343	30.1
20	15	26,338	-56.1		346	30.3
15	6	28,251	-58.4			
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MIAMI, FLA. (1020 MB.)

Standard pressure surface (mb)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind Direction	Wind Speed
SURFACE	31	4	16.9	86	15	1.2
1,000	31	171	17.9	81	80	2.7
950	31	608	16.0	78	119	5.6
900	31	1,069	13.5	74	168	5.1
850	31	1,549	11.5	63	202	5.2
800	31	2,054	9.0	58	221	7.0
750	31	2,586	6.7	46	234	10.3
700	31	3,153	4.9		244	12.4
650	31	3,752	2.3		246	15.5
600	31	4,398	-1.0		246	20.2
550	31	5,078	-5.3		247	24.3
500	31	5,830	-9.9		250	28.2
450	31	6,629	-15.5		258	32.8
400	31	7,514	-22.3		260	39.8
350	31	8,480	-29.9		261	44.1
300	31	9,559	-38.5		264	50.3
250	31	10,786	-48.0		269	60.0
200	30	12,226	-57.3		266	68.6
175	30	13,063	-60.7		266	71.3
150	30	14,016	-63.9		267	68.4
125	30	15,121	-68.7		265	56.0
100	30	16,438	-74.1		263	47.8
80	30	17,733	-74.7		264	32.1
70	30	18,520	-72.7		262	21.4
60	30	19,427	-67.9		262	11.9
50	30	20,538	-62.3		260	6.2
40	30	21,933	-57.2		66	.8
30	30	23,770	-53.2		102	3.7
25	29	24,948	-51.2		111	3.3
20	24	26,402	-48.2		110	5.4
15	9	28,290	-44.3			
10	5	31,012	-40.4			

MIDLAND, TEXAS (920 MB.)

Standard pressure surface (mb)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind Direction	Wind Speed
SURFACE	31	874	-2.9	73	313	2.3
1,000	31	203				
950	31	612				
900	31	1,050	1.8	53	309	2.1
850	31	1,513	3.4	43	287	6.8
800	31	2,005	2.7	33	280	9.3
750	31	2,523	1.0	31	264	14.2
700	31	3,077	-1.6	33	265	17.7
650	31	3,660	-4.8	35	261	22.3
600	31	4,289	-8.6	35	263	29.0
550	31	4,953	-12.6		264	34.0
500	31	5,680	-17.4		264	39.6
450	31	6,454	-22.7		263	44.9
400	31	7,315	-28.8		264	49.5
350	31	8,257	-35.8		270	52.5
300	31	9,311	-43.5		268	60.8
250	31	10,515	-51.3		267	67.0
200	29	11,936	-58.1		268	74.6
175	27	12,773	-59.6		265	73.4
150	26	13,736	-60.4		264	69.0
125	23	14,865	-63.4		263	62.4
100	20	16,227	-65.6		263	54.0
80	19	17,580	-65.8		273	35.9
70	17	18,399	-65.7		275	34.0
60	17	19,330	-64.2		273	28.6
50	17	20,449	-62.6		289	12.8
40	16	21,836	-59.2		282	10.9
30	15	23,658	-56.0		299	15.5
25	14	24,830	-55.0		279	17.9
20	13	26,262	-52.7		268	19.4
15	8	28,108	-50.6			
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MONTGOMERY, ALA. (1016 MB.)

Standard pressure surface (mb)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind Direction	Wind Speed
SURFACE	31	61	5.1	81	287	1.4
1,000	31	186	5.2	74	312	1.4
950	31	603	5.3	70	261	6.0
900	31	1,048	5.3	60	268	12.2
850	31	1,515	4.2	55	266	16.9
800	31	2,007	2.7	51	260	21.4
750	31	2,525	1.1	49	258	25.8
700	31	3,081	-1.1	50	257	30.5
650	30	3,664	-3.7	49	257	35.2
600	30	4,298	-7.1	40	257	41.6
550	30	4,965	-11.0		259	43.9
500	30	5,698	-15.5		258	52.7
450	30	6,477	-21.3		258	57.3
400	30	7,345	-27.8		257	60.8
350	30	8,291	-34.8		261	63.9
300	30	9,349	-42.9		262	75.0
250	30	10,557	-50.4		261	79.1
200	30	11,989	-57.2		261	91.7
175	30	12,830	-59.7		260	90.3
150	30	13,788	-61.3		259	89.8
125	29	14,907	-63.9		259	77.9
100	28	16,263	-66.8		259	58.1
80	25	17,609	-66.9		259	41.8
70	24	18,426	-65.5		261	36.1
60	22	19,358	-63.6		263	29.5
50	22	20,482	-61.3		259	18.1
40	22	21,877	-57.8		260	21.0
30	21	23,703	-54.8		261	21.0
25	19	24,880	-53.0		260	24.7
20	17	26,348	-49.5		252	29.3
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7						

NANTUCKET, MASS. (1017 MB.)

Standard pressure surface (mb)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind Direction	Wind Speed
SURFACE	31	14	-0.7	76	270	6.2
1,000	31	151	-.9	71	271	8.2
950	31	559	-2.6	67	270	14.0
900	31	987	-4.2	60	270	18.8
850	31	1,436	-5.0	49	269	24.5
800	31	1,912	-6.3	50	267	29.9
750	31	2,416	-7.5	51	266	34.6
700	31	2,951	-9.3	47	264	38.7
650	31	3,519	-12.0	43	261	45.5
600	31	4,130	-15.0	39	260	52.7
550	31	4,777	-19.0	51	259	56.5
500	31	5,487	-23.2	41	255	62.4
450	31	6,243	-28.0	39	257	64.3
400	31	7,087	-33.7		259	69.2
350	31	8,010	-40.4		259	72.3
300	31	9,045	-47.5		259	74.2
250	31	10,232	-54.3		264	71.3
200	31	11,646	-58.2		265	70.7
175	31	12,486	-58.4			
150	31	13,456	-58.4			
125	30	14,595	-58.8			
100	30	15,990	-60.8			
80	29	17,383	-59.8			
70	28	18,214	-59.3			
60	28	19,182	-58.8			
50	28	20,328	-57.8			
40	28	21,739	-56.4			
30	26	23,575	-53.6			
25	24	24,750	-52.4			
20	20	26,201	-49.8			
15	10	28,169	-42.3			
10						
7						

NASHVILLE, TENN. (1001 MB.)

Standard pressure surface (mb)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind Direction	Wind Speed
SURFACE	31	177	-0.4	82	285	1.7
1,000	31	179			10	1.6
950	31	589	-.7	69	252	6.8
900	31	1,022	-.6	64	256	11.3
850	31	1,479	-.5	59	266	17.3
800	31	1,963	-1.6	53	271	20.6
750	31	2,473	-3.4	49	268	22.3
700	31	3,019	-5.8	46	268	27.8
650	31	3,592	-8.8	43	269	33.6
600	31	4,214	-11.4	40	269	40.8
550	31	4,875	-14.9	38	268	46.0
500	31	5,592	-19.1	37	265	50.7
450	31	6,365	-24.4	35	263	54.6
400	31	7,217	-30.3		263	58.9
350	31	8,153	-37.4		264	61.6
300	31	9,200	-45.2		264	66.3
250	31	10,396	-53.3		265	63.5
200	31	11,815	-58.2		265	63.9
175	31	12,655	-58.8		263	66.1
150	29	13,606	-59.5		261	65.7
125	29	14,744	-61.2		262	63.3
100	29	16,124	-62.6		264	54.0
80	28	17,500	-63.3		263	43.3
70	27	18,327	-62.9		266	37.9
60	27	19,274	-62.0		266	31.3
50	26	20,405	-60.5		271	29.3
40	24	21,804	-58.7		264	29.9
30	23	23,619	-56.2		260	33.4
25	22	24,790	-53.8		260	35.4
20	21	26,229	-52.1		259	41.8
15	15	28,102	-47.2			
10	10	30,726	-44.1			
7	5	33,073	-40.5			

N. Y. INT. AP, IDLEWILD (1021 MB.)

Standard pressure surface (mb)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind Direction	Wind Speed
SURFACE	31	5	-1.8	60	298	6.8
1,000	31	167	-2.4	55	300	6.8
950	31	576	-3.9	56	274	12.8
900	31	999	-4.6	53	267	17.1
850	31	1,448	-5.2	45	270	24.9
800	31	1,924	-6.0	40	270	30.1
750	31	2,429	-7.7	42	268	34.0
700	31	2,963	-9.8	43	266	40.2
650	31	3,532	-11.6	43	265	46.2
600	31	4,141	-15.0	42	264	51.7
550	31	4,789	-19.4	40	263	56.9
500	31	5,496	-23.4	40	262	62.2
450	31	6,250	-28.6	39	265	69.2
400	31	7,093	-33.9		264	75.2
350	31	8,015	-40.4		263	84.3
300	31	9,050	-47.1		264	91.7
250	31	10,239	-53.7		267	94.0
200	31	11,656	-58.1		271	91.7
175	31	12,497	-58.0		270	87.0
150	31	13,469	-58.4		269	79.7
125	31	14,613	-59.4		267	75.6
100	30	16,010	-60.0		266	67.8
80	27	17,399	-60.8		266	63.0
70	27	18,241	-61.1		266	63.3
60	26	19,199	-59.8		264	58.1
50	26	20,339	-59.3		263	55.6
40	22	21,756	-57.5		257	55.6
30	19	23,578	-56.0		256	56.0
25	16	24,739	-53.7		252	57.5
20	13	26,197	-50.4		249	66.3
15	12	28,087	-46.9			
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NOME, ALASKA (1020 MB.)

Standard pressure surface (mb)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind Direction	Wind Speed
SURFACE	29	7	-15.8	72	79	7.6
1,000	29	160			110	6.0
950	29	553	-11.5	59	153	6.0
900	29	966	-12.4	56	197	6.0
850	29	1,403	-12.5	48	216	8.5
800	29	1,865	-13.5	47	225	7.8
750	29	2,353	-15.7	46	223	7.4
700	29	2,872	-18.1	42	232	8.7
650	29	3,420	-21.0	42	239	10.7
600	29	4,010	-24.5		232	12.8
550	29	4,635	-28.2		237	14.8
500	29	5,317	-32.7		242	17.1
450	29	6,047	-37.5		246	15.9
400	29	6,857	-42.3		248	18.1
350	29	7,749	-47.5		242	18.7
300	29	8,755	-52.7		249	17.9
250	29	9,920	-56.6		247	20.8
200	29	11,333	-56.6		248	23.7
175	29	12,183	-54.9		251	26.2
150	29	13,172	-53.1		251	33.2
125	29	14,350	-52.3		253	37.7
100	29	15,795	-52.0		257	43.7
80	29	17,242	-52.1		263	49.5
70	29	18,113	-52.2		261	54.2
60	28	19,123	-51.2		262	55.4
50	28	20,309	-52.0		268	64.1
40	27	21,748	-51.8		272	70.5
30	27	23,617	-51.4		276	75.8
25	25	24,830	-51.6		281	79.5
20	23	26,302	-51.7		282	90.5
15	16	28,214	-49.6			
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See reference note at end of table

RAWINSONDE DATA

Average monthly values

JANUARY 1962

NORFOLK, VA. (1021 MB.)

Standard pressure surface (mb.)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind	
					Direction	Speed
SURFACE	31	9	2.3	81	277	1.7
1,000	31	176	3.1	72	229	1.9
950	31	592	2.5	65	265	7.2
900	31	1,029	1.3	61	267	12.8
850	31	1,489	1.2	48	266	20.4
800	31	1,977	.2	45	264	26.0
750	31	2,489	-2.2	47	259	31.7
700	31	3,038	-4.7	48	257	37.3
650	31	3,615	-7.5	45	260	43.7
600	31	4,238	-11.1	44	259	49.0
550	30	4,895	-15.0	44	258	56.7
500	30	5,616	-19.5	44	260	62.0
450	30	6,382	-24.9	40	263	67.8
400	30	7,237	-31.1	38	264	70.9
350	30	8,171	-37.7		264	78.1
300	30	9,217	-45.3		261	80.6
250	30	10,413	-53.3		262	91.5
200	30	11,827	-59.3		266	90.5
175	30	12,662	-60.1		270	90.9
150	30	13,625	-60.0		267	80.8
125	30	14,759	-62.0		266	72.9
100	30	16,133	-63.5		261	61.2
80	30	17,503	-63.4		264	49.4
70	30	18,325	-62.3		260	43.5
60	30	19,278	-61.2		258	42.2
50	30	20,414	-59.0		258	39.1
40	30	21,821	-56.6		253	28.8
30	29	23,651	-54.2		242	31.1
25	27	24,823	-52.6		244	37.3
20	23	26,269	-49.8		226	37.9
15	19	28,178	-45.6			

NORTH PLATTE, NEBR. (920 MB.)

Standard pressure surface (mb.)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind	
					Direction	Speed
SURFACE	31	848	-11.1	70	333	6.8
1,000	31	201				
950	31	599				
900	31	1,017	-7.5	60	314	12.2
850	31	1,466	-5.0	47	322	18.8
800	31	1,942	-5.5	46	312	18.8
750	31	2,447	-6.6	45	312	22.7
700	31	2,984	-9.0	43	305	27.0
650	31	3,552	-11.8	38	301	29.9
600	31	4,165	-15.1	35	299	32.1
550	31	4,816	-19.2	35	305	31.3
500	31	5,521	-23.8	33	303	32.8
450	31	6,278	-29.1		298	36.1
400	31	7,116	-35.0		295	33.8
350	31	8,034	-41.8		299	35.8
300	31	9,063	-48.7		303	38.9
250	30	10,240	-55.3		308	43.1
200	30	11,648	-59.2		300	49.4
175	29	12,490	-59.1		294	45.3
150	29	13,458	-58.6		290	44.9
125	29	14,603	-59.1		288	46.6
100	29	15,998	-59.8		286	45.5
80	29	17,389	-60.6		295	39.1
70	29	18,224	-60.2		297	37.9
60	29	19,182	-60.7		292	37.9
50	29	20,316	-60.7		294	36.3
40	28	21,710	-60.7		299	34.4
30	22	23,499	-61.2		296	37.7
25	21	24,638	-60.5		298	34.8
20	14	26,077	-58.1			
15						

OAKLAND, CALIF. (1022 MB.)

Standard pressure surface (mb.)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind	
					Direction	Speed
SURFACE	31	6	5.8	73	71	1.7
1,000	31	184	8.7	56	40	5.2
950	31	609	9.1	43	20	12.2
900	31	1,057	9.0	32	12	13.8
850	31	1,528	7.4	27	353	9.5
800	31	2,025	4.9	29	349	9.3
750	31	2,547	2.1	28	340	9.9
700	31	3,103	-.9		329	11.9
650	31	3,685	-4.7	26	330	15.0
600	31	4,315	-8.7	29	321	15.7
550	31	4,976	-13.4	28	316	17.7
500	31	5,702	-18.6		310	19.6
450	31	6,472	-23.7		313	22.3
400	31	7,330	-29.9		313	28.0
350	31	8,269	-36.7		320	27.4
300	31	9,319	-45.0		318	26.4
250	31	10,516	-53.3		312	31.9
200	31	11,926	-60.6		307	32.1
175	31	12,756	-60.9		305	31.5
150	31	13,717	-60.1		300	30.5
125	31	14,852	-61.3		299	27.0
100	30	16,229	-62.8		299	26.6
80	30	17,604	-62.2		309	19.6
70	28	18,435	-61.5		320	14.4
60	28	19,388	-60.9		329	13.2
50	26	20,516	-60.2		340	14.8
40	24	21,910	-58.1		348	15.7
30	21	23,736	-57.2		3	18.5
25	17	24,924	-55.9		16	18.3
20	10	26,403	-54.5			
15						

OKLAHOMA CITY, OKLA. (976 MB.)

Standard pressure surface (mb.)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind	
					Direction	Speed
SURFACE	31	392	-3.2	78	302	1.9
1,000	31	196				
950	31	602	-1.1	57	306	4.3
900	31	1,037	.8	52	288	9.3
850	31	1,496	.9	47	279	10.9
800	31	1,983	.0	43	278	12.0
750	31	2,496	-1.9	38	280	15.3
700	31	3,045	-4.6	38	274	20.0
650	31	3,622	-7.6	37	270	23.9
600	31	4,244	-11.2	36	271	27.8
550	31	4,905	-15.3	34	272	30.9
500	31	5,621	-20.1		271	35.8
450	31	6,387	-25.4		270	40.2
400	31	7,238	-31.3		273	45.7
350	31	8,171	-38.0		269	54.4
300	31	9,216	-45.4		268	60.2
250	31	10,412	-52.7		263	65.9
200	30	11,839	-57.5		263	70.9
175	29	12,684	-59.2		262	73.4
150	28	13,647	-59.2		266	68.4
125	25	14,788	-61.7		268	61.4
100	24	16,161	-63.5		270	45.5
80	22	17,530	-64.2		270	41.2
70	19	18,352	-63.6		272	35.6
60	17	19,307	-62.0		272	29.1
50	16	20,442	-61.6		278	25.8
40	13	21,821	-61.0		277	22.5
30	12	23,630	-57.6		272	26.6
25	12	24,781	-58.0		274	29.0
20	11	26,204	-55.2			
15	6	28,036	-53.8			

OMAHA, NEBR. (972 MB.)

Standard pressure surface (mb.)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind	
					Direction	Speed
SURFACE	31	403	-11.1	78	311	4.1
1,000	31	183				
950	31	580	-9.3	66	314	8.2
900	31	999	-6.5	57	305	14.4
850	31	1,446	-6.1	53	303	19.2
800	31	1,921	-5.7	48	298	21.2
750	31	2,424	-7.2	46	295	23.3
700	31	2,961	-10.0	45	293	26.4
650	31	3,522	-12.9	44	290	28.8
600	31	4,137	-15.8	44	287	32.3
550	31	4,783	-19.4	40	285	35.4
500	31	5,492	-23.9	37	287	38.1
450	31	6,246	-29.3	37	285	40.0
400	31	7,084	-35.8		285	43.5
350	31	8,000	-42.3		284	47.8
300	31	9,027	-49.5		287	49.2
250	31	10,204	-55.5		284	54.8
200	31	11,614	-58.5		280	59.1
175	31	12,452	-59.2		279	59.7
150	31	13,419	-58.4		275	58.9
125	31	14,565	-58.7		277	55.2
100	31	15,962	-59.8		279	53.0
80	31	17,355	-60.5		280	51.5
70	30	18,181	-61.1		281	46.2
60	29	19,144	-61.5		278	42.9
50	26	20,290	-61.7		281	41.8
40	25	21,680	-61.1		286	42.9
30	23	23,465	-61.6		285	44.5
25	17	24,594	-61.3		279	50.3
20	10	25,946	-61.8			
15	7	27,733	-56.4			

PEORIA, ILL. (996 MB.)

Standard pressure surface (mb.)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind	
					Direction	Speed
SURFACE	31	200	-10.0	70	283	2.7
1,000	31	170			318	5.6
950	31	569	-7.4	64	285	11.9
900	31	990	-6.0	59	287	17.3
850	31	1,439	-5.7	55	284	20.8
800	31	1,914	-6.5	54	284	23.9
750	31	2,415	-7.6	49	284	28.0
700	31	2,953	-9.7	47	280	32.3
650	31	3,518	-12.2	45	276	34.6
600	31	4,131	-15.8	44	276	37.5
550	31	4,779	-19.6	39	274	41.6
500	31	5,485	-24.2	40	274	46.0
450	31	6,240	-29.5	39	274	48.4
400	31	7,076	-35.2		273	51.7
350	31	7,994	-41.7		271	54.8
300	31	9,022	-48.6		270	60.8
250	31	10,203	-54.5		270	64.7
200	31	11,619	-57.5		272	66.5
175	31	12,463	-57.3		270	67.0
150	31	13,436	-57.8		271	62.4
125	31	14,584	-58.6		270	56.0
100	31	15,982	-59.6		273	52.8
80	31	17,376	-60.0		270	44.3
70	31	18,209	-60.7		272	42.6
60	31	19,165	-61.0		272	40.0
50	28	20,298	-61.2		272	45.3
40	25	21,687	-59.9		270	47.8
30	20	23,492	-59.8		270	49.5
25	19	24,638	-58.5		264	53.2
20	12	26,074	-55.2			
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PITTSBURGH, PA. (978 MB.)

Standard pressure surface (mb.)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind	
					Direction	Speed
SURFACE	31	353	-5.2	73	237	4.7
1,000	31	173				
950	31	577	-5.6	69	234	9.7
900	31	999	-6.7	65	250	19.4
850	31	1,446	-6.7	60	258	26.6
800	31	1,918	-7.9	56	262	31.1
750	31	2,418	-9.2	51	265	35.0
700	31	2,951	-10.9	54	266	41.6
650	31	3,515	-13.4	52	264	45.3
600	31	4,124	-16.5	50	265	46.2
550	31	4,770	-20.2	49	262	50.3
500	31	5,474	-24.6	46	258	49.5
450	31	6,229	-29.5	44	258	56.7
400	31	7,065	-35.0		261	58.5
350	31	7,985	-41.4		260	63.3
300	31	9,017	-48.0		259	72.1
250	31	10,204	-53.9		252	72.5
200	31	11,622	-57.9		252	76.6
175	31	12,464	-58.2		254	75.8
150	31	13,433	-58.9		255	76.4
125	30	14,571	-60.0		260	70.5
100	27	15,957	-60.8			
80	24	17,336	-60.7			
70	24	18,173	-60.1			
60	24	19,133	-59.6			
50	24	20,271	-60.3			
40	22	21,665	-59.2			
30	19	23,485	-58.4			
25	18	24,635	-56.8			
20	14	26,032	-53.8			
15	5	27,849	-50.0			
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POINT ARGUELLO, CALIF. (1007 MB.)

Standard pressure surface (mb.)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind	
					Direction	Speed
SURFACE	31	113	6.0	75	105	2.7
1,000	31	168	10.8	56	58	3.3
950	31	601	12.7	35	358	4.5
900	31	1,050	11.0	29	338	5.4
850	31	1,525	9.1	28	331	6.8
800	31	2,024	6.4	29	339	8.9
750	31	2,551	3.7	26	340	8.9
700	31	3,108	.5	26	334	9.1
650	31	3,695	-3.3	28	333	10.5
600	31	4,327	-7.4	28	323	12.4
550	31	4,993	-11.9	25	313	15.3
500	31	5,772	-17.0	24	309	19.2
450	31	6,500	-22.7	24	312	20.6
400	31	7,358	-29.1	25	322	21.8
350	31	8,299	-36.1		317	23.9
300	31	9,352	-44.4		317	23.9
250	31	10,550	-52.9		310	29.1
200	31	11,964	-59.9		300	33.0
175	31	12,797	-60.4		299	32.6
150	31	13,758	-60.8		294	29.7
125	31	14,890	-62.2		287	27.4
100	31	16,264	-64.0		296	23.7
80	30	17,628	-63.6		304	17.1
70	29	18,455	-62.6		310	14.8
60	28	19,406	-62.0		330	10.9
50	26	20,528	-60.8		338	9.3
40	26	21,921	-58.7		352	10.1
30	25	23,738	-57.2		11	10.9
25	25	24,893	-56.3		360	12.0
20	24	26,313	-55.4		347	15.3
15	22	28,151	-53.9		336	16.7
10	17	30,746	-50.3		317	24.7
7	9	33,103	-48.6			

PONAPE, CAROLINE IS. (1003 MB.)

Standard pressure surface (mb.)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind	
					Direction	Speed
SURFACE	31	39	26.0	86	68	6.2
1,000	31	65	25.9	85	72	8.4
950	31	511	23.1	85	79	16.1
900	31	988	20.1	84	82	21.4
850	31	1,481	17.8	78	87	23.1
800	31	2,000	15.9	66	87	20.6
750	31	2,544	13.3	59	87	19.8
700	31	3,126	10.2	60	89	20.6
650	31	3,737	6.5	58	89	24.7
600	31	4,394	2.9	60	89	25.6
550	31	5,093	-1.1	61	91	25.3
500	31	5,851	-5.1	52	94	26.4
450	31	6,672	-9.7	38	91	24.3
400	30	7,576	-15.0		88	23.9
350	29	8,574	-21.7		83	21.8
300	29	9,692	-29.9	39	85	16.5
250	29	10,965	-40.0		95	17.3
200	29	12,450	-52.3		96	16.1
175	29	13,301	-59.3		97	15.7
150	29	14,249	-66.9		83	15.2
125	28	15,329	-74.9		78	19.8
100	28	16,603	-82.7		87	23.1
80	26	17,844	-82.6		89	14.4
70	25	18,601	-75.0		190	1.0
60	24	19,510	-69.0		261	12.6
50	22	20,609	-65.4		270	21.4
40	22	21,979	-61.8		269	17.1
30	22	23,775	-58.2		274	7.0
25	21	24,929	-55.7		79	7.8
20	21	26,359	-53.5		89	26.8
15	20	28,228	-49.3		94	43.7
10	10	30,877	-46.2			
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PORTLAND, ME. (1016 MB.)

Standard pressure surface (mb.)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind	
					Direction	Speed
SURFACE	31	20	-8.1	71	279	5.2
1,000	31	138	-7.5	59	276	8.2
950	31	538	-7.3	55	269	15.9
900	31	958	-8.9	53	269	19.4
850	31	1,400	-10.0	49	270	23.9
800	31	1,867	-11.1	48	269	32.1
750	31	2,363	-12.4	45	263	36.5
700	31	2,887	-14.0	39	263	42.0
650	31	3,446	-15.5		264	47.2
600	31	4,050	-18.3		261	54.2
550	31	4,688	-22.2		262	57.9
500	31	5,390	-26.5		261	60.0
450	31	6,134	-31.4		262	63.1
400	31	6,970	-37.1		260	67.8
350	31	7,882	-42.9		266	67.8
300	31	8,909	-49.2		263	75.8
250	31	10,090	-54.4		261	82.6
200	30	11,515	-57.1		259	79.7
175	29	12,354	-56.6		260	76.9
150	29	13,332	-56.6		258	74.4
125	29	14,486	-57.1		258	71.3
100	29	15,894	-58.5		257	71.9
80	29	17,298	-58.7		256	62.0
70	28	18,146	-59.3		257	63.0
60	28	19,106	-58.4		256	63.5
50	28	20,251	-57.9		255	62.8
40	27	21,663	-56.1		252	68.4
30	25	23,491	-54.9		250	70.7
25	24	24,671	-52.4		247	74.4
20	22	26,140	-49.3		241	83.5
15	10	27,975	-45.7			
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7						

RAPID CITY, S. DAK. (906 MB.)

Standard pressure surface (mb.)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind	
					Direction	Speed
SURFACE	31	966	-7.9	65	332	6.0
1,000	31	194				
950	31	594				
900	31	1,019			328	6.4
850	31	1,467	-5.4	47	318	20.2
800	31	1,941	-7.4	51	322	27.0
750	31	2,439	-9.3	52	320	26.6
700	31	2,973	-11.3	50	310	26.0
650	31	3,535	-13.7	47	308	28.8
600	31	4,144	-16.9	49	300	30.1
550	31	4,791	-21.0	47	301	35.0
500	31	5,489	-25.9	45	300	39.4
450	31	6,241	-31.0	42	301	42.4
400	31	7,070	-36.7		301	47.4
350	31	7,981	-43.5		302	49.4
300	31	9,002	-50.4		305	51.9
250	31	10,174	-56.4		303	56.9
200	31	11,577	-60.0		296	54.0
175	31	12,411	-59.3		295	51.1
150	31	13,377	-58.5		295	50.9
125	31	14,524	-58.5		293	50.1
100	31	15,922	-60.0		292	49.9
80	31	17,315	-60.1		295	47.0
70	31	18,148	-60.2		292	43.1
60	30	19,113	-60.7		291	43.3
50	30	20,244	-61.6		293	44.7
40	30	21,624	-62.2		294	45.5
30	28	23,399	-62.5		290	51.7
25	24	24,512	-62.7		291	52.7
20	13	25,831	-59.6		283	63.3
15	7	27,665	-56.5			
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ST. CLOUD, MINN. (981 MB.)

Standard pressure surface (mb.)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind	
					Direction	Speed
SURFACE	31	316	-15.9	71	275	3.1
1,000	31	167				
950	31	554	-15.1	68	296	6.4
900	31	965	-12.6	62	301	14.6
850	31	1,403	-11.0	57	301	19.2
800	31	1,869	-11.2	56	301	22.2
750	31	2,361	-12.5	55	299	26.4
700	31	2,888	-14.2	56	297	29.9
650	31	3,445	-16.9	55	296	33.0
600	31	4,045	-20.1	55	294	36.5
550	31	4,683	-23.7	56	292	38.7
500	31	5,377	-27.7	50	289	41.4
450	31	6,122	-32.8	47	289	44.9
400	31	6,947	-38.5	47	289	48.4
350	31	7,852	-44.9		283	50.5
300	31	8,865	-52.1		282	51.3
250	30	10,028	-57.8		282	53.0
200	30	11,428	-59.4		284	55.0
175	30	12,266	-58.3		286	55.2
150	30	13,237	-57.5		284	52.8
125	30	14,389	-57.9		284	51.7
100	30	15,789	-59.6		284	54.0
80	29	17,179	-60.5		285	55.2
70	29	18,012	-60.7		282	55.8
60	29	18,969	-61.5		282	56.3
50	29	20,097	-62.3		283	56.9
40	28	21,468	-63.9		281	59.3
30	26	23,207	-64.3		281	65.5
25	24	24,313	-63.4		279	69.2
20	22	25,694	-63.3		278	68.4
15	18	27,508	-59.8		273	76.6
10	[illegible]	30,127	-56.7			

ST. PAUL IS., ALASKA (1017 MB.)

Standard pressure surface (mb.)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind	
					Direction	Speed
SURFACE	31	10	-6.3	81	65	4.9
1,000	31	140	-7.2	73	76	4.1
950	31	537	-7.8	63	85	2.7
900	31	959	-8.8	52	106	1.9
850	31	1,401	-10.0	47	18	1.6
800	31	1,867	-11.6	46	327	2.9
750	31	2,355	-14.1	40	343	3.7
700	31	2,882	-16.5	36	329	4.7
650	31	3,433	-19.5	35	301	4.7
600	31	4,027	-22.8		310	5.2
550	31	4,656	-26.7		290	6.6
500	31	5,343	-30.9		275	8.4
450	31	6,077	-35.6		286	9.1
400	31	6,894	-40.7		275	12.2
350	31	7,792	-46.3		268	12.0
300	31	8,803	-51.9		276	14.8
250	31	9,971	-55.8		267	13.8
200	31	11,394	-53.5		249	17.7
175	31	12,258	-50.8		246	18.8
150	30	13,278	-49.7		243	21.0
125	30	14,473	-48.8		245	21.4
100	30	15,940	-48.4		247	23.5
80	30	17,412	-47.8		246	25.3
70	30	18,289	-47.6		252	26.8
60	30	19,314	-47.0		255	27.2
50	30	20,524	-46.6		259	29.5
40	29	22,001	-46.2		268	32.8
30	27	23,914	-46.0		278	36.3
25	26	25,122	-46.1		282	41.0
20	24	26,608	-46.7		286	47.2
15	14	28,586	-45.1			
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SALEM, OREG. (1019 MB.)

Standard pressure surface (mb.)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind	
					Direction	Speed
SURFACE	31	61	1.3	77	184	2.9
1,000	31	215	2.9	73	192	4.3
950	31	631	3.4	64	206	5.6
900	31	1,070	3.0	54	240	6.6
850	31	1,532	1.1	54	268	8.4
800	31	2,018	-1.0	50	291	11.3
750	31	2,528	-2.9	42	299	14.6
700	31	3,075	-6.1	44	307	17.3
650	31	3,647	-9.4	42	308	21.2
600	31	4,267	-12.9	40	305	23.5
550	31	4,918	-17.0	40	304	27.6
500	31	5,635	-21.1	39	304	29.9
450	31	6,394	-26.4		305	32.4
400	31	7,246	-32.4		306	35.4
350	31	8,174	-39.4		305	38.5
300	31	9,214	-46.7		305	43.7
250	30	10,407	-55.0		308	45.9
200	30	11,811	-60.6		306	44.1
175	30	12,639	-61.8		305	41.6
150	30	13,598	-60.0		303	41.6
125	30	14,738	-59.9		306	38.5
100	30	16,124	-60.3		308	35.9
80	30	17,527	-59.1		310	30.3
70	30	18,365	-59.9		314	28.0
60	30	19,327	-59.0		320	28.0
50	28	20,475	-57.6		321	28.6
40	26	21,885	-58.0		330	29.0
30	21	23,689	-58.4		335	38.9
25	17	24,855	-57.2		338	37.7
20	10	26,350	-58.4			
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SALT LAKE CITY, UTAH (879 MB.)

Standard pressure surface (mb.)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind	
					Direction	Speed
SURFACE	31	1,288	-8.1	85	163	3.3
1,000	31	270				
950	31	674				
900	31	1,100				
850	31	1,546	-5.7	70	162	1.9
800	31	2,023	-5.1	60	266	3.7
750	31	2,528	-5.7	51	297	8.4
700	31	3,069	-7.7	50	307	14.8
650	31	3,640	-10.3	50	313	18.1
600	31	4,256	-13.5	48	309	20.0
550	31	4,913	-17.4	47	309	23.3
500	31	5,621	-21.9	42	307	25.8
450	31	6,388	-27.0	36	303	29.1
400	31	7,229	-32.8		305	32.1
350	31	8,155	-39.5		302	30.3
300	31	9,193	-46.9		317	27.8
250	31	10,380	-54.8		312	29.9
200	31	11,785	-60.2		300	33.4
175	31	12,619	-59.7		299	36.9
150	31	13,583	-58.9		294	35.9
125	30	14,718	-60.2		293	33.8
100	30	16,105	-61.0		294	31.7
80	30	17,496	-60.6		294	29.1
70	30	18,337	-60.5		293	28.0
60	29	19,297	-60.5		300	26.8
50	27	20,431	-59.7		304	26.0
40	22	21,838	-59.7		308	25.8
30	19	23,651	-59.4		311	29.0
25	15	24,846	-57.7		321	32.4
20	7	26,327	-56.7			
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See reference note at end of table

RAWINSONDE DATA

Average monthly values

JANUARY 1962

SAN ANTONIO, TEXAS (993 MB.)

Standard pressure surface mb	Number of observations	Dynamic height	Temperature	Relative humidity	Wind Direction	Wind Speed
SURFACE	31	213	3.8	76	353	5.8
1,000	31	187				
950	31	608	6.0	64	345	4.5
900	31	1,051	5.8	63	248	3.9
850	31	1,519	5.3	54	236	8.9
800	31	2,014	4.4	42	234	13.4
750	31	2,536	2.7	33	247	16.1
700	31	3,095	.6	30	255	18.8
650	31	3,679	- 2.3	32	262	21.6
600	31	4,320	- 6.2		261	27.2
550	31	4,985	-10.4		260	30.9
500	31	5,725	-15.5		260	36.1
450	31	6,510	-21.0		260	42.2
400	31	7,374	-26.9		262	49.0
350	31	8,324	-33.6		264	58.5
300	31	9,388	-41.4		262	63.7
250	31	10,602	-50.0		261	72.3
200	29	12,038	-57.8		260	80.6
175	29	12,876	-60.2		257	79.5
150	27	13,835	-61.6		258	74.6
125	27	14,956	-64.8		258	67.0
100	26	16,309	-67.9		263	58.5
80	24	17,652	-68.1		264	41.4
70	20	18,461	-67.7		263	31.9
60	20	19,383	-66.0		265	22.7
50	20	20,497	-62.8		271	15.7
40	19	21,880	-59.2		264	14.0
30	18	23,698	-56.1		258	11.7
25	16	24,861	-54.7		257	14.8
20	11	26,299	-52.6			
15	7	28,200	-49.6			
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SAN DIEGO, CALIF. (1004 MB.)

Standard pressure surface mb	Number of observations	Dynamic height	Temperature	Relative humidity	Wind Direction	Wind Speed
SURFACE	31	124	8.1	77	39	1.4
1,000	31	160			36	2.1
950	31	587	12.2	43	293	1.7
900	31	1,040	10.3	34	320	1.7
850	31	1,515	8.5	32	324	3.5
800	31	2,014	6.4	31	324	3.7
750	31	2,537	3.5	32	324	5.8
700	31	3,097	.1	32	318	6.4
650	31	3,680	- 3.4		317	10.9
600	31	4,317	- 7.2		311	14.4
550	31	4,980	-11.3		304	14.8
500	31	5,715	-16.3		302	19.6
450	31	6,489	-22.4		302	21.4
400	31	7,354	-29.5		297	24.3
350	31	8,293	-36.7		293	26.6
300	31	9,344	-44.5		301	27.6
250	31	10,544	-52.4		302	32.1
200	31	11,963	-59.1		292	35.2
175	31	12,797	-60.3		284	36.5
150	31	13,757	-61.0		284	36.7
125	31	14,885	-63.1		282	33.4
100	31	16,250	-64.8		286	27.6
80	31	17,611	-64.6		290	19.6
70	30	18,429	-64.0		294	14.6
60	30	19,370	-63.5		304	10.5
50	30	20,496	-61.3		336	8.4
40	30	21,887	-59.2		356	8.0
30	29	23,697	-57.2		340	9.1
25	26	24,863	-56.3		332	11.5
20	19	26,278	-54.9		320	13.8
15	6	28,105	-53.9			
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SAN JUAN, P. R. (1018 MB.)

Standard pressure surface mb	Number of observations	Dynamic height	Temperature	Relative humidity	Wind Direction	Wind Speed
SURFACE	31	6	22.1	87	100	3.3
1,000	31	160	22.5	77	90	15.5
950	31	600	19.7	76	86	19.6
900	31	1,069	16.6	73	86	20.8
850	31	1,554	13.8	66	87	19.0
800	31	2,063	11.4	56	84	18.1
750	31	2,600	9.5	40	81	16.3
700	31	3,171	7.6		83	15.7
650	31	3,771	4.7		83	14.4
600	31	4,427	1.4		78	12.6
550	31	5,114	- 2.7		74	12.8
500	31	5,871	- 7.3		58	11.9
450	31	6,673	-12.4		44	11.7
400	31	7,573	-18.9		24	14.2
350	31	8,552	-26.5		2	16.9
300	31	9,646	-34.8		342	17.3
250	31	10,894	-44.1		323	21.0
200	30	12,359	-53.6		314	29.3
175	30	13,207	-58.6		306	29.3
150	30	14,163	-64.1		301	26.4
125	30	15,264	-69.7		312	22.2
100	28	16,573	-76.3		321	14.6
80	28	17,849	-78.7		346	8.5
70	28	18,619	-76.2		17	6.2
60	28	19,517	-70.5		63	6.4
50	28	20,616	-64.7		80	8.4
40	28	21,999	-59.0		82	10.9
30	27	23,831	-53.1		82	14.8
25	27	25,014	-50.4		84	16.9
20	23	26,479	-48.2		89	19.4
15	17	28,371	-46.8		98	27.0
10	7	31,052	-43.7			

SANTA MONICA, CALIF. (1015 MB.)

Standard pressure surface mb	Number of observations	Dynamic height	Temperature	Relative humidity	Wind Direction	Wind Speed
SURFACE	31	38	10.9	58	22	5.2
1,000	31	163	13.2	44	13	4.7
950	31	594	12.4	35	32	2.7
900	31	1,046	10.7	29	15	2.1
850	31	1,519	8.3	29	30	2.7
800	31	2,017	5.6	29	15	3.9
750	31	2,539	2.8	28	345	5.8
700	31	3,097	- .5		336	9.5
650	31	3,681	- 3.9		325	11.9
600	31	4,313	- 7.8		320	13.4
550	31	4,975	-12.1		316	16.5
500	31	5,707	-17.0		305	18.5
450	31	6,482	-23.0		301	20.4
400	31	7,341	-29.8		303	21.2
350	31	8,279	-36.8		309	23.9
300	31	9,329	-44.7		305	28.4
250	31	10,527	-53.0		303	31.7
200	31	11,942	-59.6		298	31.5
175	31	12,775	-60.4		291	33.6
150	31	13,734	-61.0		291	33.4
125	31	14,863	-62.7		294	30.1
100	31	16,231	-64.9		294	26.6
80	31	17,590	-64.8		300	16.9
70	30	18,402	-63.8		301	13.8
60	29	19,350	-62.8		320	9.9
50	28	20,471	-61.6		346	9.5
40	27	21,861	-59.8		348	8.4
30	25	23,673	-57.3		346	10.1
25	23	24,826	-57.3		350	9.7
20	16	26,273	-56.7		353	16.5
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SAULT STE. MARIE, MICH. (988 MB.)

Standard pressure surface mb	Number of observations	Dynamic height	Temperature	Relative humidity	Wind Direction	Wind Speed
SURFACE	31	221	-13.9	71	37	0.6
1,000	31	128				
950	31	517	-13.7	69	277	5.6
900	31	928	-14.5	70	283	12.0
850	31	1,360	-16.0	67	289	17.5
800	31	1,816	-16.8	61	289	21.4
750	31	2,303	-16.7	55	284	26.4
700	31	2,819	-17.5	51	282	31.3
650	31	3,370	-19.1	50	284	37.7
600	31	3,965	-21.7	49	285	44.5
550	31	4,601	-25.3	47	281	45.7
500	31	5,289	-29.2	44	281	49.7
450	31	6,029	-34.1		282	54.0
400	31	6,850	-39.7		277	54.2
350	31	7,751	-45.7		281	61.0
300	31	8,764	-52.3		277	61.8
250	31	9,926	-57.7		276	62.2
200	30	11,339	-57.9		279	64.3
175	30	12,183	-57.1		275	66.3
150	29	13,159	-56.7		272	66.5
125	29	14,313	-57.5		272	65.9
100	29	15,721	-57.8		273	63.7
80	27	17,126	-59.0		273	65.7
70	27	17,963	-59.5		271	62.8
60	27	18,926	-60.2		271	60.8
50	25	20,071	-60.5		271	65.9
40	24	21,464	-60.8		265	70.5
30	21	23,238	-61.2		264	77.1
25	15	24,362	-58.0			
20	11	25,794	-57.9			
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SEATTLE, WASH. (1010 MB.)

Standard pressure surface mb	Number of observations	Dynamic height	Temperature	Relative humidity	Wind Direction	Wind Speed
SURFACE	31	61	2.3	82	172	2.7
1,000	31	205	3.1	76	172	4.1
950	31	622	2.6	66	210	8.2
900	31	1,057	1.0	64	241	8.4
850	31	1,516	- .4	59	253	8.7
800	31	1,999	- 2.7	54	269	11.9
750	31	2,508	- 4.9	49	281	15.9
700	31	3,049	- 7.6	48	288	20.4
650	31	3,622	-10.9	45	293	24.3
600	31	4,234	-14.5	45	297	28.4
550	31	4,884	-18.5	46	299	33.4
500	31	5,594	-22.9	52	298	36.1
450	31	6,354	-27.9	52	297	39.4
400	31	7,197	-33.4	50	300	43.1
350	31	8,121	-40.3		302	45.3
300	31	9,156	-47.5		301	49.4
250	31	10,341	-54.9		305	51.7
200	31	11,746	-60.2		308	50.7
175	31	12,577	-60.8		307	46.4
150	31	13,538	-59.7		304	44.3
125	31	14,678	-59.7		304	44.9
100	30	16,066	-59.1		307	43.3
80	30	17,470	-57.9		311	35.6
70	27	18,314	-57.9		313	34.2
60	26	19,278	-58.8		312	31.3
50	25	20,421	-59.1		312	31.1
40	22	21,821	-59.1		326	40.6
30	15	23,630	-58.4		328	42.6
25	7	24,865	-58.9			
20	5	26,344	-56.9			
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SHEMYA, ALASKA (1004 MB.)

Standard pressure surface mb	Number of observations	Dynamic height	Temperature	Relative humidity	Wind Direction	Wind Speed
SURFACE	31	38	0.7	84	147	9.7
1,000	31	70			145	12.4
950	31	478	- 2.5	79	159	16.7
900	31	907	- 5.5	81	170	18.8
850	31	1,353	- 7.8	75	183	18.5
800	31	1,823	- 9.9	67	184	17.7
750	31	2,316	-12.1	56	186	15.7
700	31	2,844	-15.2	50	191	17.9
650	31	3,396	-18.1	44	197	19.0
600	31	3,995	-21.5	42	204	19.6
550	31	4,626	-25.4		206	19.8
500	31	5,317	-29.9	42	209	20.4
450	31	6,056	-34.9		209	21.6
400	31	6,873	-40.4		210	24.5
350	31	7,772	-46.2		210	29.9
300	31	8,783	-52.4		213	29.3
250	31	9,946	-57.4		218	28.2
200	31	11,360	-55.0		222	27.4
175	31	12,221	-51.4		221	28.0
150	30	13,227	-49.3		225	25.8
125	30	14,428	-47.4		225	25.3
100	29	15,904	-45.9		231	24.3
80	29	17,384	-46.2		233	24.7
70	29	18,282	-45.7		233	23.9
60	29	19,301	-45.0		234	23.7
50	29	20,522	-44.0		237	22.5
40	28	22,026	-43.6		236	21.0
30	27	23,961	-42.8		244	22.7
25	25	25,185	-42.7		252	21.4
20	23	26,692	-42.6		256	23.5
15	18	28,632	-43.1		247	23.1
10	7	31,511	-41.4			

SHREVEPORT, LA. (1014 MB.)

Standard pressure surface mb	Number of observations	Dynamic height	Temperature	Relative humidity	Wind Direction	Wind Speed
SURFACE	31	79	3.0	89	329	1.2
1,000	31	190	3.2	77	352	1.7
950	31	610	4.0	66	237	4.9
900	31	1,047	3.6	59	259	9.7
850	31	1,512	3.3	53	256	12.6
800	31	2,002	1.6	52	259	16.5
750	31	2,522	.1	51	263	20.2
700	31	3,073	- 2.1	46	261	24.3
650	31	3,657	- 5.1	41	262	28.2
600	31	4,283	- 8.9	36	264	28.8
550	31	4,947	-13.0	33	261	33.0
500	31	5,672	-17.8	35	265	36.1
450	31	6,448	-23.1		261	41.6
400	31	7,306	-29.5		260	47.0
350	31	8,246	-36.4		261	51.7
300	31	9,299	-43.9		260	61.0
250	31	10,503	-51.0		261	64.7
200	31	11,932	-57.5		263	67.4
175	30	12,782	-59.1		263	71.7
150	30	13,745	-61.0		262	73.1
125	30	14,874	-63.3		263	63.7
100	30	16,236	-66.1		263	53.0
80	30	17,588	-66.2		263	40.8
70	30	18,403	-65.8		265	32.3
60	29	19,338	-64.1		270	28.0
50	28	20,461	-61.7		267	25.3
40	26	21,849	-59.2		260	22.3
30	22	23,669	-55.7		262	25.8
25	19	24,833	-54.0		261	27.6
20	16	26,290	-51.1		256	33.2
15	8	28,136	-47.8			
10	6	30,855	-41.1			

SPOKANE, WASH. (940 MB.)

Standard pressure surface mb	Number of observations	Dynamic height	Temperature	Relative humidity	Wind Direction	Wind Speed
SURFACE	31	722	- 6.0	75	140	1.4
1,000	31	230				
950	31	637				
900	31	1,061	- 3.7	67	209	5.6
850	31	1,512	- 4.3	59	242	10.5
800	31	1,989	- 5.4	59	271	14.2
750	31	2,492	- 7.3	58	289	16.3
700	31	3,030	- 9.6	51	295	20.6
650	31	3,597	-12.4	48	299	28.2
600	31	4,208	-15.5	50	303	30.7
550	31	4,855	-19.4	52	308	36.3
500	31	5,562	-23.6	47	309	38.3
450	31	6,318	-28.7	45	307	40.8
400	31	7,159	-34.2	41	306	44.5
350	31	8,080	-41.1		307	46.4
300	31	9,111	-48.7		306	49.9
250	31	10,289	-56.1		312	58.3
200	31	11,689	-60.5		311	55.4
175	31	12,522	-59.9		306	53.0
150	31	13,488	-58.8		308	45.7
125	31	14,633	-58.9		307	46.6
100	31	16,033	-59.1		307	43.3
80	31	17,432	-58.8		308	42.4
70	31	18,274	-58.5		309	40.4
60	29	19,244	-58.6		311	40.2
50	29	20,386	-59.5		320	39.1
40	26	21,786	-59.6		320	45.9
30	18	23,587	-60.1		320	48.6
25	11	24,703	-60.1			
20						
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TAMPA, FLA. (1021 MB.)

Standard pressure surface mb	Number of observations	Dynamic height	Temperature	Relative humidity	Wind Direction	Wind Speed
SURFACE	31	8	12.4	87	32	4.1
1,000	31	184	14.3	81	72	3.9
950	31	616	13.7	73	194	3.9
900	31	1,074	12.0	66	233	6.8
850	31	1,551	10.0	57	245	11.3
800	31	2,053	7.9	48	242	13.2
750	31	2,580	6.5	40	248	16.9
700	31	3,148	4.3		251	19.2
650	31	3,745	1.5		254	21.4
600	31	4,389	- 2.1		253	27.2
550	31	5,063	- 6.6		254	31.5
500	31	5,813	-11.4		255	35.6
450	31	6,606	-17.0		255	42.0
400	31	7,486	-23.5		255	48.8
350	31	8,448	-30.6		256	56.9
300	31	9,524	-39.0		258	60.8
250	31	10,750	-47.8		259	72.1
200	30	12,200	-56.7		261	80.4
175	29	13,040	-60.1		263	75.2
150	28	13,998	-63.0		265	72.1
125	28	15,109	-67.0		263	67.2
100	28	16,440	-72.1		261	56.9
80	26	17,752	-72.6		262	38.1
70	26	18,550	-70.7		263	28.4
60	25	19,457	-67.7		261	20.8
50	25	20,570	-62.8		259	13.4
40	23	21,958	-58.3		260	9.5
30	20	23,783	-53.9		250	9.5
25	18	24,958	-52.4		247	11.5
20	15	26,398	-50.3		241	11.3
15	9	28,260	-47.4			
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TATOOSH IS., WASH. (1021 MB.)

Standard pressure surface mb	Number of observations	Dynamic height	Temperature	Relative humidity	Wind Direction	Wind Speed
SURFACE	31	31	5.4	85	117	8.0
1,000	31	197	5.2	75	122	6.2
950	31	611	3.1	74	194	6.0
900	31	1,051	1.1	73	233	8.4
850	31	1,510	- .4	67	257	11.9
800	31	1,993	- 2.6	58	267	15.3
750	31	2,500	- 4.8	52	273	17.7
700	31	3,044	- 7.5	51	278	22.0
650	31	3,610	-10.5	49	278	26.8
600	31	4,230	-14.2	50	282	29.3
550	31	4,874	-18.4	47	288	32.3
500	31	5,590	-22.7	45	285	41.2
450	31	6,343	-27.9	45	283	40.8
400	31	7,192	-33.7	41	283	44.3
350	31	8,115	-40.4		287	45.3
300	31	9,149	-47.7		289	52.3
250	31	10,330	-55.6		291	52.5
200	31	11,731	-60.7		294	55.0
175	31	12,561	-60.6		294	47.0
150	31	13,526	-58.1		290	45.5
125	31	14,672	-58.6		292	41.0
100	31	16,069	-59.6		299	36.7
80	29	17,474	-58.3		298	35.9
70	27	18,321	-57.9		303	37.3
60	25	19,290	-58.1		313	34.8
50	23	20,445	-58.5		320	35.6
40	19	21,864	-57.7		320	38.7
30	13	23,659	-57.6		334	41.6
25	11	24,812	-58.1			
20						
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TOPEKA, KANS. (990 MB.)

Standard pressure surface mb	Number of observations	Dynamic height	Temperature	Relative humidity	Wind Direction	Wind Speed
SURFACE	31	269	- 8.6	80	301	4.7
1,000	31	189				
950	31	588	- 6.3	65	314	8.4
900	31	1,013	- 4.3	60	311	11.9
850	31	1,464	- 4.2	54	304	15.0
800	31	1,942	- 4.8	50	295	17.1
750	31	2,447	- 6.3	47	289	21.8
700	31	2,985	- 8.8	45	286	24.7
650	31	3,551	-11.4	39	281	28.8
600	31	4,167	-14.5	36	281	30.7
550	31	4,819	-18.4	35	280	35.9
500	31	5,526	-23.3		279	41.2
450	31	6,283	-28.5		280	44.1
400	31	7,124	-34.6		279	47.2
350	31	8,044	-41.3		277	53.2
300	31	9,076	-48.2		273	56.0
250	31	10,260	-54.5		286	55.8
200	31	11,675	-58.1		280	56.7
175	31	12,515	-58.7		279	57.3
150	31	13,485	-58.5		279	54.0
125	31	14,628	-60.1		281	48.4
100	31	16,018	-61.1		279	45.3
80	31	17,402	-61.7		284	41.6
70	31	18,232	-61.9		285	37.9
60	30	19,190	-61.6		282	34.2
50	29	20,324	-61.2		284	33.8
40	28	21,717	-61.0		286	33.0
30	26	23,504	-60.5		284	34.6
25	22	24,628	-59.3		279	40.6
20	13	25,995	-57.8			
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TRUK, CAROLINE IS. (1008 MB.)

Standard pressure surface mb	Number of observations	Dynamic height	Temperature	Relative humidity	Wind Direction	Wind Speed
SURFACE	31	2	27.2	82	51	6.4
1,000	31	74	26.7	82	55	9.3
950	31	520	23.7	83	73	18.5
900	31	999	20.7	81	84	18.7
850	31	1,493	18.4	71	90	16.5
800	31	2,013	16.1	65	95	17.5
750	31	2,565	13.5	56	93	18.3
700	31	3,139	10.4	50	96	19.8
650	31	3,757	6.8	47	96	23.3
600	31	4,408	3.0	44	97	25.6
550	31	5,105	- .9	48	99	24.7
500	31	5,865	- 5.0	43	102	24.5
450	31	6,686	- 9.7	39	99	24.9
400	31	7,589	-14.9	29	97	23.9
350	31	8,587	-21.3		91	21.8
300	31	9,706	-29.5		88	19.0
250	31	10,979	-39.7		98	19.0
200	31	12,465	-52.0		111	19.0
175	31	13,316	-59.0		105	18.3
150	31	14,265	-66.7		99	19.4
125	31	15,347	-74.5		96	20.2
100	31	16,617	-82.9		102	24.7
80	31	17,853	-82.4		100	16.7
70	30	18,613	-74.7		279	2.9
60	29	19,523	-68.7		273	8.5
50	28	20,624	-65.0		273	15.9
40	28	21,998	-61.3		273	13.4
30	28	23,799	-57.5		299	4.3
25	27	24,952	-55.3		91	9.9
20	25	26,381	-52.8		93	29.1
15	25	28,249	-49.8		92	44.5
10	15	30,951	-45.1		92	57.3

TUCSON, ARIZ. (927 MB.)

Standard pressure surface mb	Number of observations	Dynamic height	Temperature	Relative humidity	Wind Direction	Wind Speed
SURFACE	31	789	5.2	64	129	4.9
1,000	31	169				
950	31	589				
900	31	1,036	8.6	44	132	6.8
850	31	1,508	7.1	40	142	5.4
800	31	2,005	5.0	39	207	2.9
750	31	2,525	3.2	36	263	5.4
700	31	3,087	.4	36	280	9.3
650	31	3,669	- 3.2	39	280	12.6
600	31	4,306	- 7.2	36	274	16.7
550	31	4,972	-11.7	34	277	22.5
500	31	5,703	-16.5		270	26.4
450	31	6,480	-22.3		268	29.3
400	31	7,343	-28.7		267	33.4
350	31	8,284	-35.9		269	35.0
300	31	9,336	-44.1		273	37.1
250	31	10,536	-52.7		272	43.5
200	31	11,956	-58.1		273	42.0
175	31	12,793	-59.4		276	44.9
150	31	13,756	-60.4		272	45.1
125	31	14,886	-62.5		278	41.6
100	31	16,252	-65.1		278	34.2
80	30	17,608	-65.4		280	23.9
70	29	18,433	-64.5		278	19.8
60	27	19,375	-63.1		289	14.8
50	27	20,502	-61.6		308	11.5
40	27	21,892	-59.4		304	8.5
30	20	23,713	-57.1		305	11.9
25	9	24,872	-54.9			
20						
15						
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WAKE IS., PACIFIC AREA (1014 MB.)

Standard pressure surface mb	Number of observations	Dynamic height	Temperature	Relative humidity	Wind Direction	Wind Speed
SURFACE	31	5	24.1	76	65	6.8
1,000	31	123	23.2	76	71	7.6
950	31	565	19.7	79	77	7.2
900	31	1,034	16.2	81	74	4.9
850	31	1,519	14.0	71	71	3.1
800	31	2,031	13.6	39	347	2.7
750	31	2,572	12.8	20	309	4.5
700	31	3,150	10.0		298	7.2
650	31	3,759	6.8		288	9.7
600	31	4,416	3.3		278	12.2
550	31	5,110	- 1.0		279	15.2
500	31	5,870	- 5.4		277	18.7
450	31	6,686	-10.6		282	21.6
400	31	7,586	-16.6		288	26.2
350	31	8,577	-23.3		289	29.1
300	31	9,688	-31.3		294	30.5
250	31	10,955	-40.7		296	33.0
200	31	12,438	-52.0		296	32.6
175	30	13,290	-58.5		300	33.6
150	30	14,243	-65.7		301	33.0
125	30	15,330	-73.3		297	29.7
100	30	16,610	-81.0		298	25.3
80	30	17,856	-82.3		293	11.9
70	30	18,610	-77.6		280	6.0
60	30	19,504	-72.0		273	2.1
50	28	20,595	-64.6		69	2.3
40	26	21,974	-59.4		94	5.4
30	25	23,793	-54.9		89	8.7
25	25	24,964	-52.9		81	8.5
20	24	26,412	-50.6		84	10.7
15	21	28,296	-48.3		79	12.4
10	13	30,971	-45.8			

See reference note at end of table

RAWINSONDE DATA

Average monthly values

WASHINGTON, D. C. (1011 MB.)

Standard pressure surface (mb.)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind	
					Direction	Speed
SURFACE	31	84	- 3.1	74	317	2.7
1,000--	31	171			327	4.1
950----	31	582	- 1.8	58	276	8.4
900----	31	1,009	- 2.9	57	261	12.8
850----	31	1,461	- 3.1	51	266	21.0
800----	31	1,941	- 3.6	45	268	28.2
750----	31	2,453	- 4.9	45	265	31.9
700----	31	2,990	- 7.7	50	263	35.6
650----	31	3,562	-10.4	48	262	42.0
600----	31	4,177	-13.7	46	261	46.6
550----	31	4,832	-17.8	46	261	50.5
500----	31	5,540	-22.0	46	259	59.7
450----	31	6,304	-26.8	45	258	68.4
400----	31	7,148	-32.8	47	258	73.4
350----	31	8,075	-39.3		257	79.7
300----	30	9,123	-46.1		259	84.1
250----	30	10,314	-53.9		259	91.1
200----	30	11,729	-58.4		261	92.7
175----	30	12,567	-58.8		265	88.6
150----	29	13,538	-59.2		262	80.2
125----	29	14,677	-60.2		262	71.5
100----	29	16,062	-61.7		260	59.5
80-----	29	17,442	-62.0		258	54.2
70-----	29	18,277	-61.5		259	53.6
60-----	27	19,226	-61.3		260	48.6
50-----	27	20,361	-60.0		262	42.9
40-----	24	21,763	-58.2		260	43.3
30-----	22	23,583	-55.8		260	48.2
25-----	21	24,745	-53.2		256	49.2
20-----	18	26,209	-51.2		256	54.0
15-----	12	28,088	-46.9			
10-----	9	30,816	-41.1			

WINNEMUCCA, NEV. (877 MB.)

Standard pressure surface (mb.)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind	
					Direction	Speed
SURFACE	31	1,310	-11.0	83		0.0
1,000--	31	283				
950----	31	684				
900----	31	1,109				
850----	31	1,551	- 4.0	65	184	1.0
800----	31	2,031	- 2.4	52	286	4.1
750----	31	2,540	- 3.6	48	300	9.1
700----	31	3,086	- 5.4	43	314	14.0
650----	31	3,662	- 8.0	41	315	16.3
600----	31	4,284	-11.5	42	314	19.8
550----	31	4,939	-15.9	43	310	22.2
500----	31	5,657	-20.7	41	311	24.3
450----	31	6,417	-26.1		311	23.9
400----	31	7,270	-32.2	38	317	21.0
350----	31	8,200	-38.7		329	27.2
300----	31	9,240	-46.5		328	30.1
250----	31	10,428	-54.7		325	30.9
200----	31	11,832	-60.7		314	35.0
175----	31	12,663	-60.6		312	36.7
150----	31	13,625	-59.6		312	33.4
125----	31	14,764	-60.5		308	31.9
100----	31	16,149	-61.4		310	30.5
80-----	31	17,535	-60.8		307	26.0
70-----	30	18,369	-60.5		313	22.3
60-----	28	19,333	-60.2		318	20.2
50-----	26	20,467	-59.8		325	21.4
40-----	24	21,870	-59.6		332	21.2
30-----	20	23,675	-59.1		332	24.3
25-----	16	24,816	-58.7		332	29.0
20-----	8	26,213	-58.4			
15-----						
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WINSLOW, ARIZ. (856 MB.)

Standard pressure surface (mb.)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind	
					Direction	Speed
SURFACE	31	1,492	- 6.9	84	202	2.7
1,000--	31	256				
950----	31	665				
900----	31	1,091				
850----	31	1,541			154	1.6
800----	31	2,023	- 1.8	63	303	4.3
750----	31	2,539	- 1.6	49	306	6.4
700----	31	3,086	- 2.9	45	313	8.4
650----	31	3,669	- 5.4	41	304	9.9
600----	31	4,295	- 9.1	41	296	12.2
550----	31	4,958	-13.3	35	297	17.5
500----	31	5,684	-17.9		296	22.3
450----	31	6,455	-23.5		287	23.7
400----	31	7,315	-29.9		288	25.8
350----	31	8,252	-37.1		283	30.1
300----	31	9,300	-44.8		286	31.5
250----	31	10,496	-53.2		[illegible]	34.8
200----	30	[illegible]	-58.5		282	44.5
175----	29	12,758	-59.0		278	44.3
150----	29	13,722	-59.9		286	42.7
125----	29	14,857	-61.8		[illegible]	40.0
100----	29	16,232	-63.7		282	33.4
80-----	29	17,602	-63.6		282	29.7
70-----	29	18,435	-63.2		[illegible]	27.8
60-----	28	19,378	-62.6		[illegible]	20.0
50-----	26	20,508	-61.5		308	15.2
40-----	25	21,895	-60.3		315	16.1
30-----	22	23,699	-58.6		325	18.3
25-----	21	24,849	-58.0		310	17.3
20-----	13	26,257	-56.7		285	24.1
15-----	7	28,095	-54.4			
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YAKUTAT, ALASKA (1014 MB.)

Standard pressure surface (mb.)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind	
					Direction	Speed
SURFACE	30	12	- 2.9	88	108	5.6
1,000--	30	122			101	9.5
950----	30	531	- 1.4	64	130	13.4
900----	30	962	- 3.5	62	146	12.0
850----	30	1,412	- 5.6	63	168	8.9
800----	30	1,885	- 8.1	64	189	7.0
750----	30	2,381	-10.9	60	184	4.5
700----	29	2,909	-14.0	56	212	3.1
650----	29	3,463	-16.9	55	238	6.6
600----	29	4,065	-20.4	53	255	10.9
550----	29	4,701	-23.9	50	259	15.2
500----	29	5,395	-28.3	47	260	18.1
450----	29	6,137	-33.2	45	263	20.6
400----	29	6,964	-38.8		260	24.7
350----	29	7,869	-44.8		260	30.7
300----	29	8,886	-50.6		258	37.5
250----	29	10,062	-54.9		260	42.2
200----	29	11,485	-56.0		272	42.4
175----	29	12,336	-55.3		278	41.6
150----	28	13,329	-54.7		284	40.2
125----	28	14,500	-54.6		280	45.7
100----	28	15,927	-55.1		286	48.8
80-----	28	17,353	-54.4		289	52.1
70-----	27	18,208	-54.4		294	55.0
60-----	[illegible]	19,197	-54.2		296	59.3
50-----	[illegible]	20,362	-55.6		301	62.2
40-----	25	21,787	-55.7		303	71.5
30-----	23	23,627	-56.7		307	80.6
25-----	20	24,762	-56.5		312	91.7
20-----	16	26,221	-56.4		316	101.2
15-----	8	28,069	-54.6			
10-----						

YAP, CAROLINE IS. (1007 MB.)

Standard pressure surface (mb.)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind	
					Direction	Speed
SURFACE	28	17	26.6	86	47	8.9
1,000--	28	77	26.1	86	57	10.7
950----	28	516	22.9	85	84	13.0
900----	28	999	19.8	83	84	16.9
850----	28	1,491	17.5	74	86	16.7
800----	28	2,008	15.7	60	96	14.2
750----	28	2,544	13.1	55	106	13.6
700----	28	3,132	10.0	51	109	11.7
650----	28	3,735	6.5	50	104	12.4
600----	28	4,398	2.7	50	103	12.2
550----	28	5,091	- 1.1	50	99	12.8
500----	28	5,853	- 5.3	48	104	12.4
450----	28	6,672	- 9.8	49	114	11.7
400----	28	7,575	-15.1		117	12.4
350----	27	8,571	-21.7		118	14.4
300----	26	9,688	-30.0		115	12.8
250----	26	10,959	-40.4		136	11.3
200----	26	12,442	-52.6		135	14.4
175----	26	13,290	-59.7		136	11.1
150----	24	14,236	-67.2		149	16.3
125----	24	15,313	-75.5		154	16.7
100----	23	16,578	-83.9		146	19.0
80-----	17	17,812	-80.9		135	12.0
70-----	15	18,573	-73.6		170	7.6
60-----	15	19,481	-69.7		270	6.6
50-----	15	20,579	-66.3		273	7.6
40-----	14	21,947	-62.8			
30-----	14	23,749	-57.3		358	2.5
25-----	14	24,912	-55.1		74	5.8
20-----	13	26,333	-53.9		92	17.7
15-----	12	28,189	-50.0			
10-----	9	30,862	-46.8			

YUCCA FLAT, NEV. (886 MB.)

Standard pressure surface (mb.)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind	
					Direction	Speed
SURFACE	29	1,196	- 2.8	63	352	3.3
1,000--	29	227				
950----	29	638				
900----	29	1,075				
850----	29	1,534	3.0	38	1	9.3
800----	29	2,024	1.7	34	11	10.7
750----	29	2,541	.1	32	2	10.7
700----	29	3,093	- 1.9		340	13.0
650----	29	3,677	- 5.0		330	13.6
600----	29	4,303	- 8.7		321	16.5
550----	29	4,966	-12.9		323	19.8
500----	29	5,693	-17.8		314	22.5
450----	29	6,461	-23.6		309	23.7
400----	29	7,323	-30.2		310	24.7
350----	29	8,259	-37.3		310	25.8
300----	29	9,306	-45.3		306	25.3
250----	29	10,499	-53.6		299	30.9
200----	29	11,908	-60.1		298	33.0
175----	29	12,740	-60.5		295	34.6
150----	28	13,703	-59.9		295	32.4
125----	28	14,838	-61.2		292	30.9
100----	28	16,217	-62.6		297	29.7
80-----	28	17,590	-63.0		292	24.3
70-----	28	18,413	-62.0		302	20.0
60-----	28	19,367	-61.6		304	17.5
50-----	26	20,513	-60.7		329	15.2
40-----	24	21,906	-59.8		333	15.0
30-----	22	23,715	-58.7		342	18.7
25-----	19	24,859	-58.6		334	20.8
20-----	12	26,245	-58.7			
15-----						
10-----						

YUMA, ARIZ. (1003 MB.)

Standard pressure surface (mb.)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind	
					Direction	Speed
SURFACE	31	131	8.3	52	356	2.3
1,000--	31	156			355	3.1
950----	31	586	12.3	33	1	9.1
900----	31	1,037	10.0	33	15	8.4
850----	31	1,510	7.6	34	2	6.6
800----	31	2,007	5.9	35	330	5.8
750----	31	2,535	3.5	33	320	7.6
700----	31	3,090	.3	35	310	8.5
650----	31	3,679	- 3.0	33	292	10.7
600----	31	4,310	- 7.1	32	286	15.5
550----	31	4,981	-11.6	30	284	16.7
500----	31	5,706	-16.6	28	285	17.9
450----	31	6,485	-22.7	28	286	20.2
400----	31	7,342	-29.2	29	283	26.0
350----	31	8,281	-36.3	29	284	27.8
300----	31	9,332	-44.4		280	29.5
250----	31	10,530	-52.6		274	30.1
200----	29	11,943	-58.8		273	37.1
175----	27	12,781	-59.5		263	38.1
150----	24	13,725	-59.1		263	42.6
125----	17	14,870	-62.2		264	43.5
100----	14	16,230	-63.0		265	42.6
80-----	12	17,599	-63.3		266	32.3
70-----	12	18,416	-63.4		273	26.0
60-----	11	19,386	-63.3		270	21.8
50-----	11	20,510	-61.8		285	12.6
40-----	10	21,894	-59.8		298	10.9
30-----	9	23,714	-57.3			
25-----	7	24,906	-55.8			
20-----	7	26,334	-54.1			
15-----	6	28,205	-52.4			
10-----	5	30,856	-48.3			

Note: All observations scheduled at 1200, G. C T Pressures shown under station names are the average monthly station pressures for the month of record, corrected to the height of the floors of the instrument shelters used for rawinsonde purposes. "Number of observations" refers to those of dynamic height only. Although the number of temperature observations at any given pressure surface is usually the same as for height, it is possible for temperature to be missing for one or more pressure surfaces of some observations. Relative humidity averages are limited to those observations with temperatures warmer than -40°C Observations of wind speed and direction are sometimes lost due to limiting angles, i. e., elevation angles less than 6° above the horizon, or any obstruction above the horizon.

The temperature and wind values are based on 15 or more observations at the surface or 5 observations at a standard pressure le[illegible] temperature [illegible] data are not published for standard pressure surfaces for which less than 16 observations [illegible] available

Relative humidity data are computed and expressed on the basis of vapor pressure over water Unless otherwise indicated, they are obtained from lithium chloride hygristors.

These average values for standard pressure surfaces were obtained by rawinsondes, dynamic height (geopotential) in units of . 98 dynamic meter, temperature in degrees Celsius, relative humidity in percent, and resultant winds in degrees and knots

SOLAR RADIATION DATA

[illegible] tabulated in langleys per minute on a surface normal to the direction of the sun

JANUARY 1962

Date	Sun's zenith distance A M				*	Sun's zenith distance P M			
	78.7°	75.7°	70.7°	60.0°		60.0°	70.7°	75.7°	78.7°

ALBUQUERQUE, N. MEX.

Date	Air mass								
	4.19	3.35	2.51	1.67	*	1.67	2.51	3.35	4.19
Jan.									
3-----	1.16	1.24	1.34	1.45	1.44	1.42	1.27	1.20	1.12
5-----	1.05	1.14	1.25	1.38	1.41	1.40	1.25	1.15	1.04
7-----	1.01	1.04	1.13	----	----	----	----	----	----
9-----	----	----	----	----	1.43	1.40	1.22	1.09	.97
11----	1.14	1.26	1.37	1.50	1.46	1.43	1.33	1.21	1.13
12----	1.11	1.21	1.30	1.45	1.38	1.45	1.31	----	----
14----	----	----	----	----	----	----	1.29	1.17	1.07
15----	1.11	1.21	1.32	1.45	1.47	1.43	1.30	1.19	1.12
16--	----	(1.05)	(1.29)	----	----	----	----	----	----
18----	----	----	----	----	1.41	1.39	----	----	----
20----	----	----	1.22	1.39	1.43	1.36	1.15	1.04	.99
21----	----	----	----	----	----	(.97)	(.79)	(.76)	(.83)
22----	----	----	----	----	(1.31)	(1.19)	----	----	----
23----	----	----	----	----	----	----	(.87)	(.76)	----
26----	1.07	1.17	1.28	1.41	1.44	1.41	1.28	1.15	1.06
28----	1.09	1.18	1.29	1.44	1.47	1.45	1.32	1.22	1.10
29---	1.14	1.22	1.33	1.47	1.53	1.43	1.33	1.20	1.12
30----	1.11	1.21	1.31	1.43	1.46	1.40	1.28	1.16	1.05
31----	1.11	1.21	1.30	1.42	1.43	1.40	1.26	1.11	.97
Averages	1.10	1.19	1.29	1.44	1.44	1.41	1.20	1.16	1.06

MAUNA LOA OBS., HAWAII

Date	Air mass								
	3.36	2.69	2.01	1.34	*	1.34	2.01	2.69	3.36
Jan.									
1-----	1.28	1.36	1.45	1.56	1.63	1.57	1.46	1.38	1.30
2-----	1.11	1.23	1.35	----	----	----	----	----	----
2-14--	Pyrheliometer Replaced								
16----	1.16	1.25	1.35	----	----	----	----	----	----
17----	1.22	1.32	1.41	1.53	1.61	1.51	----	----	----
19----	1.24	1.32	1.41	1.52	----	----	----	----	----
20----	1.25	1.34	1.43	1.52	1.60	----	----	----	----
21----	1.25	1.32	1.42	1.52	----	----	----	----	----
22----	----	----	----	1.50	----	----	----	1.28	1.21
23----	1.27	1.35	1.43	1.54	----	----	----	1.28	1.19
26----	1.26	1.35	1.45	1.56	----	----	----	----	----
28----	----	----	----	----	1.62	1.50	1.38	1.29	1.20
29----	1.24	1.33	1.42	1.54	1.63	1.52	1.41	1.31	1.23
30----	1.25	1.34	1.43	1.54	1.63	----	----	----	----
31----	1.29	1.37	1.46	1.57	1.66	1.54	1.43	1.34	1.26
Averages	1.24	1.32	1.42	1.54	1.63	1.53	1.42	1.31	1.23

( ) Clouds present
* Values corresponding to true solar noon

Date	Sun's zenith distance A M				*	Sun's zenith distance P. M			
	78.7°	75.7°	70.7°	60.0°		60.0°	70.7°	75.7°	78.7°

BLUE HILL OBS., MASS.

Date	Air mass								
	4.89	3.92	2.94	1.96	*	1.96	2.94	3.92	4.89
Jan.									
9-----	0.81	0.95	1.12	----	1.21	----	----	----	----
11----	1.07	1.17	1.28	----	----	----	----	----	----
12----	1.06	1.13	1.24	----	----	----	----	----	----
13----	.79	.95	1.12	----	1.23	----	1.05	0.88	0.76
14----	.84	.95	1.08	----	1.25	----	1.01	.87	.74
16----	1.03	1.12	1.24	----	1.37	----	1.24	1.17	1.00
17----	.86	.98	1.13	----	----	----	----	.96	.79
18----	----	----	----	----	1.37	----	1.25	1.07	.96
19----	----	----	1.21	----	1.36	----	1.20	1.04	.90
23----	.91	1.03	1.21	----	1.33	----	1.10	.95	.89
24----	----	----	----	----	----	----	1.10	.90	.78
25----	.77	.89	----	----	1.25	----	1.11	.90	.82
31----	1.06	1.16	1.25	1.37	1.39	1.37	1.20	1.06	.93
	Equipment inoperative January 1-7 and 28-29.								
Averages	0.92	1.03	1.19	1.37	1.31	1.37	1.14	0.98	0.86

TUCSON, ARIZ.

Date	Air mass								
	4.56	3.65	2.74	1.83	*	1.83	2.74	3.65	4.56
Jan.									
2-----	0.97	1.09	----	----	----	1.32	1.16	----	----
3-----	----	.95	----	1.32	----	1.32	1.16	----	----
4-----	.97	1.08	1.24	----	----	----	----	----	----
5-----	----	----	----	----	----	----	1.18	1.06	----
8-----	1.02	1.10	1.22	1.37	----	----	1.22	1.09	0.98
9-----	.99	1.10	1.19	1.34	----	----	----	----	----
11----	1.09	1.19	1.35	----	----	----	----	1.21	1.11
12----	1.18	----	----	1.51	----	----	----	----	----
15----	1.11	1.20	1.31	1.46	----	----	1.27	1.15	1.05
18----	.94	1.00	1.11	1.31	----	----	----	----	----
19----	.95	1.07	1.20	----	----	----	----	----	----
20----	.97	----	----	----	----	----	1.23	1.14	1.05
	Instrument inoperative remainder of month								
Averages	1.02	1.09	1.23	1.39	----	1.32	1.20	1.13	1.05

GUAM, M. I.

Date	Air mass								
	4.92	3.93	2.95	1.97	*	1.97	2.95	3.93	4.92
	Recorder inoperative								

Langley is the unit used to denote one gram calorie per square centimeter. An explanation of the formula used in computing the air mass values for each station listed above appears in the February 1957 issue, Vol. 8, No. 2, page 63, of this publication.

SOLAR RADIATION DATA

Daily totals and weekly averages of solar radiation (direct and diffuse) received on a horizontal surface, tabulated in langleys.

JANUARY 1962

1962	Albuquerque, N.Mex.	Annette, Alaska	Apalachicola, Fla.	Astoria, Oreg.	Barrow, Alaska	Bethel, Alaska	Bismarck, N. Dak.	Blue Hill, Mass.	Boise, Idaho	Boston, Mass.	Brownsville, Tex.	Canton Island, Pacific Area	Caribou, Maine	Charleston, S. C.	Cleveland, Ohio	Columbia, Mo.	Corvallis, Oreg.	Davis, Calif.	Dodge City, Kans.	E. Lansing, Mich.	El Paso, Texas	Ely, Nev.	Fairbanks, Alaska	Flaming Gorge, Utah	Fort Worth, Texas	Fresno, Calif.	Gainesville, Fla.	Glasgow, Mont.	Grand Junction, Colo.	Great Falls, Mont.	Greensboro, N. C.	Griffin, Ga.	Cape Hatteras, N.C.	Hilo, Hawaii	Indianapolis, Ind.	Inyokern ChinaLake, Calif.	Lake Charles, La.	Lander, Wyo.
Jan. 1	267	6	87	140	---	40	84	176	189	182	375	662	134	61	---	120	39	142	303	214	199	203	---	(281)	310	163	245	301	341	148	60	56	---	344	209	350	301	264
Jan. 2	213	37	385	10	---	47	136	190	102	199	277	675	143	130	---	274	20	55	289	138	290	280	---	256	323	46	257	151	341	135	314	288	---	333	82	354	327	224
Jan. 3	349	78	---	47	---	49	70	106	104	101	95	683	63	331	---	264	102	63	283	126	356	242	2	289	205	35	396	52	349	116	305	363	---	418	192	317	176	---
Jan. 4	260	7	---	124	---	47	58	143	217	173	345	648	174	---	---	47	101	258	183	35	323	288	2	89	241	45	299	57	224	64	243	278	---	410	94	347	144	197
Jan. 5	350	29	---	14	---	67	155	92	143	78	303	675	85	147	---	15	21	96	270	27	230	278	2	246	72	155	187	91	314	47	211	159	---	---	20	351	59	222
Jan. 6	337	18	---	18	---	59	27	19	54	18	388	671	140	---	---	47	83	172	97	7	366	175	22	15	331	49	109	57	165	119	19	131	---	---	13	309	315	72
Jan. 7	311	23	---	64	---	47	147	179	85	184	369	644	39	346	---	103	101	162	171	55	364	225	23	32	349	98	167	54	190	67	174	245	---	260	58	343	168	147
Average	298	28	---	60	---	51	97	129	128	133	307	665	111	203	---	124	67	135	228	86	304	242	10	(173)	262	84	237	109	275	99	189	217	---	353	95	339	213	188
Jan. 8	297	14	---	67	---	10	64	110	74	100	390	681	111	309	---	286	146	300	137	123	370	262	8	49	342	84	384	121	---	---	77	333	---	175	171	349	354	113
Jan. 9	340	10	---	183	---	22	128	199	194	208	137	654	102	339	---	220	199	274	301	168	261	150	4	308	125	132	373	178	332	---	142	336	---	402	239	352	25	275
Jan. 10	264	17	---	175	---	24	---	99	227	106	133	635	170	28	224	299	190	288	335	178	160	298	5	306	---	180	43	145	339	167	216	328	---	249	282	362	359	287
Jan. 11	386	65	---	104	---	9	110	232	216	235	131	674	214	50	228	---	114	252	337	223	---	297	17	310	383	226	49	126	333	154	305	320	---	409	277	380	180	286
Jan. 12	374	62	269	61	---	27	182	159	94	178	456	678	130	134	202	250	55	53	314	105	---	169	5	286	389	48	251	88	319	86	197	277	---	293	236	359	376	265
Jan. 13	230	59	425	83	---	28	147	218	190	216	240	600	177	358	61	291	106	301	225	145	374	124	3	111	268	143	418	134	177	142	---	383	---	328	264	380	362	135
Jan. 14	274	104	306	69	---	30	134	223	130	220	324	670	(170)	140	201	---	33	296	188	78	361	322	---	318	295	253	232	177	309	113	---	230	---	244	63	385	146	277
Average	309	47	---	106	---	21	127	177	161	180	259	656	(153)	194	183	269	120	252	262	146	305	231	7	241	300	152	250	139	301	132	187	315	---	300	219	367	257	234
Jan. 15	379	27	292	111	---	17	195	60	181	59	384	686	42	187	7	(299)	135	297	---	93	399	297	---	243	360	256	162	216	336	---	---	354	---	426	76	342	380	271
Jan. 16	---	98	398	76	---	---	211	244	203	247	316	647	203	343	182	315	140	286	---	178	403	325	5	318	352	219	402	170	368	92	320	390	---	258	245	310	350	279
Jan. 17	123	119	403	97	---	26	233	223	206	226	85	689	87	334	157	---	67	263	87	257	253	248	9	210	359	218	389	212	282	---	341	378	---	372	283	384	128	249
Jan. 18	342	118	301	124	---	70	206	221	127	222	111	669	186	159	165	114	52	44	117	203	406	132	6	156	44	162	415	161	283	---	171	82	---	341	84	335	39	198
Jan. 19	305	104	91	104	---	79	---	239	135	247	104	672	205	29	40	233	41	37	248	91	404	182	26	234	306	96	282	232	225	---	47	56	---	393	102	338	175	237
Jan. 20	372	119	149	225	---	24	94	144	191	123	130	668	122	74	117	263	224	304	141	235	401	109	9	171	146	235	180	77	63	118	114	219	---	441	213	232	109	99
Jan. 21	257	102	164	229	---	21	---	208	311	199	300	680	223	314	78	64	238	199	198	53	407	259	2	225	42	134	162	233	137	---	96	87	---	431	41	66	111	184
Average	296	98	257	138	--	39	188	191	193	189	204	673	153	206	107	(215)	128	204	158	159	382	222	9	223	230	188	285	186	242	---	182	224	---	380	149	287	185	217
Jan. 22	267	11	335	229	---	53	208	36	287	39	203	663	55	288	20	---	219	314	289	97	404	352	11	336	35	132	294	439	316	194	53	126	---	---	124	195	106	319
Jan. 23	231	13	323	107	---	80	223	253	275	217	78	683	162	185	239	---	175	291	163	202	304	355	27	305	115	124	336	203	347	---	187	80	52	---	286	417	121	316
Jan. 24	166	21	301	39	---	88	173	236	170	226	103	671	157	137	240	329	153	304	296	241	73	348	30	325	246	191	393	125	364	85	60	85	161	---	256	424	111	291
Jan. 25	115	77	404	17	---	120	---	230	125	246	---	575	164	318	231	181	134	264	93	174	225	305	43	347	76	263	251	179	247	146	176	119	284	---	195	404	---	314
Jan. 26	---	23	233	65	---	128	152	151	223	157	258	671	231	360	9	70	86	218	307	23	429	352	55	336	345	(238)	258	114	375	147	146	246	--	---	20	410	134	237
Jan. 27	392	9	61	95	---	111	162	223	252	227	468	612	---	252	209	356	131	318	344	272	417	366	63	314	407	264	295	213	329	111	30	52	230	---	304	413	196	279
Jan. 28	415	16	159	216	--	103	190	---	301	110	491	664	249	38	124	355	132	311	345	241	398	---	62	364	409	276	106	372	362	117	95	64	57	---	212	416	411	283
Average	264	24	259	110	---	98	185	188	233	174	267	649	170	225	153	258	147	289	262	179	321	346	42	333	233	(216)	276	235	334	133	107	110	---	---	200	383	180	291
Jan. 29	426	120	441	224	--	89	227	-	205	243	469	676	253	391	72	327	101	264	349	106	441	---	59	322	410	182	469	111	369	184	321	431	366	---	260	422	396	263
Jan. 30	422	131	430	208	---	75	102	51	124	70	454	678	66	394	139	191	120	275	311	289	453	363	39	321	420	139	460	176	---	181	204	424	350	---	80	428	400	298
Jan. 31	424	170	431	43	---	49	143	286	75	291	449	623	236	391	155	307	131	315	---	170	443	358	27	307	411	137	460	96	362	179	391	442	340	---	179	432	385	294
Feb. 1	421	108	422	141	---	42	88	180	98	194	116	(691)	272	381	162	104	159	213	---	308	449	363	40	371	423	107	456	146	345	140	171	431	368	--	182	431	326	304
Feb. 2	429	9	300	234	---	129	217	221	61	176	309	697	250	359	188	321	217	251	---	233	444	368	24	373	409	204	325	192	356	105	101	427	142	---	174	438	---	291
Feb. 3	437	9	441	238	---	41	252	59	79	58	398	700	120	373	101	347	77	240	---	118	456	374	---	(372)	416	220	542	149	358	214	340	437	290	--	313	441	127	318
Feb. 4	---	10	368	212	11	57	162	270	86	285	481	550	203	329	245	345	102	134	---	256	465	378	21	379	419	102	222	125	359	161	363	390	372	---	298	443	253	291
Average	426	79	405	186	---	69	170	178	104	188	382	(659)	200	374	152	278	130	242	---	211	450	367	35	(349)	415	156	419	142	358	166	270	426	318	---	212	434	315	294

Note.--Langley is the unit used to denote one gram calorie per square centimeter.
Values in parentheses are interpolated.

SOLAR RADIATION DATA

Daily totals and weekly averages of solar radiation (direct and diffuse) received on a horizontal surface, tabulated in langleys.

1962	Laramie, Wyo.	Las Vegas, Nev.	Lemont, Ill.	Little Rock, Ark.	Los Angeles, Calif.	Los Angeles, Calif. (Urban)	Madison, Wis.	Manhattan, Kans.	Matanuska, Alaska	Mauna Loa Obs., Hawaii	Medford, Oreg.	Miami, Fla.	Midland, Tex.	Newport, R. I.	North Omaha, Nebr.	Oak Ridge, Tenn.	Oklahoma City, Okla.	Page, Ariz.	Phoenix, Ariz.	Prosser, Wash.	Pullman, Wash.	Rapid City, S. Dak.	Riverside, Calif.	St. Cloud, Minn.	Salt Lake City, Utah	San Antonio, Tex.	Santa Maria, Calif.	S. Ste. Marie, Mich.	Sayville, N. Y.	Seattle, Wash.	Seattle Tacoma, Wash.	Shreveport, La.	Spokane, Wash.	State College, Pa.	Stillwater, Okla.	Swan Island, W. I.	Tampa, Fla.	Tucson, Ariz.	Washington, D. C. (Obs. & Test Dev. Ctr.)
Jan. 1------	230	103	211	289	296	269	147	242	5	513	66	100	277	136	215	98	300	---	121	33	161	187	210	82	240	328	168	91	111	84	108	274	32	176	278	122	222	140	94
Jan. 2------	231	306	166	323	276	268	198	254	8	516	53	---	229	186	---	114	288	283	318	27	121	180	282	116	66	304	302	109	251	21	22	290	47	156	268	131	342	325	229
Jan. 3------	231	291	139	324	267	259	147	248	11	512	132	421	277	110	246	270	258	324	325	155	37	179	277	144	147	155	298	35	132	30	35	267	51	111	236	292	399	349	174
Jan. 4------	129	314	119	77	274	284	30	11	5	(502)	171	155	334	187	132	141	136	309	325	168	166	88	291	36	169	286	301	133	171	58	72	100	139	133	88	339	347	--	223
Jan. 5------	232	312	32	187	300	300	40	99	12	486	108	299	265	87	210	51	126	294	332	66	52	222	301	(212)	215	269	299	91	48	11	15	97	44	25	42	320	193	---	37
Jan. 6------	90	304	7	64	277	277	27	109	32	457	74	355	311	26	168	110	254	269	326	34	52	154	255	176	38	351	273	134	10	32	39	139	46	22	219	230	118	348	19
Jan. 7------	104	304	110	224	(305)	303	160	60	45	---	35	237	317	206	124	74	258	226	316	81	53	83	287	134	30	338	301	81	190	39	37	276	28	138	---	286	194	341	246
Average--------	178	276	112	212	(285)	280	107	146	17	(497)	91	261	287	134	183	123	231	284	295	80	92	156	272	(129)	129	290	277	96	130	39	47	206	55	109	188	246	259	301	146
Jan. 8------	113	313	137	242	306	297	195	174	11	348	41	393	340	148	237	144	89	198	326	35	57	210	296	165	35	331	304	100	109	11	32	207	91	88	31	167	331	355	---
Jan. 9------	272	315	224	103	297	291	243	201	12	514	77	386	98	208	231	76	214	286	325	87	186	210	296	157	271	62	304	81	155	150	164	54	171	211	222	372	394	356	--
Jan. 10------	288	352	235	348	242	261	258	281	8	512	221	214	139	79	275	315	319	330	287	131	124	246	300	215	274	219	305	152	64	114	111	289	80	261	269	278	88	289	246
Jan. 11------	261	347	246	353	315	311	219	290	40	541	185	268	396	238	172	287	362	317	365	154	124	137	323	80	261	230	308	129	215	75	90	294	119	255	300	289	61	398	254
Jan. 12------	233	335	132	(376)	158	164	150	272	10	527	115	134	---	122	265	297	334	317	352	121	66	125	213	102	81	375	58	112	89	30	27	359	105	254	289	430	264	(376)	---
Jan. 13------	134	209	214	375	330	324	213	251	15	505	128	282	366	229	217	295	333	183	169	122	94	127	284	112	152	87	313	78	218	56	116	330	113	126	270	182	407	61	290
Jan. 14------	271	349	50	39	347	343	97	31	9	466	138	353	249	236	194	199	77	330	368	201	72	223	326	221	295	247	339	61	209	77	66	69	51	258	28	418	262	377	293
Average--------	225	317	177	(262)	285	284	197	214	15	488	129	290	265	180	227	230	247	280	313	121	103	183	291	150	195	221	276	102	151	73	87	229	104	208	201	305	258	(316)	271
Jan. 15------	207	321	232	323	276	294	260	276	21	515	104	422	365	81	255	129	351	321	361	---	183	164	279	218	220	355	279	145	56	64	89	312	201	25	302	324	304	398	77
Jan. 16------	274	286	255	379	249	250	282	274	39	393	50	382	337	248	---	282	298	325	257	142	104	253	290	228	280	342	173	190	176	39	40	318	73	223	272	418	313	343	288
Jan. 17------	232	264	259	337	281	277	276	207	69	534	31	350	337	236	190	295	193	176	194	107	90	204	255	234	220	182	334	143	213	64	98	297	70	261	99	351	386	238	305
Jan. 18------	189	297	226	41	290	288	264	39	48	353	43	291	---	209	140	101	43	290	353	---	240	147	262	242	176	90	333	176	147	178	181	38	205	203	16	428	383	---	147
Jan. 19------	193	---	141	(43)	234	201	157	238	43	345	124	254	244	205	235	30	278	277	355	141	169	(268)	258	144	128	105	170	119	192	181	184	51	167	123	283	412	328	412	103
Jan. 20------	138	110	212	68	(78)	56	228	165	23	489	163	292	80	120	176	107	217	183	384	243	162	121	25	179	104	43	253	198	65	206	210	61	207	134	239	408	251	403	215
Jan. 21------	180	310	44	34	---	222	137	95	5	416	278	210	209	212	199	124	32	242	78	---	237	122	166	116	273	58	233	78	157	204	206	48	194	50	23	---	354	275	---
Average--------	202	264	196	(175)	(235)	227	229	185	36	435	113	314	262	187	199	153	202	259	283	158	169	(183)	219	194	200	168	254	150	144	134	144	161	159	145	176	390	331	345	189
Jan. 22------	299	167	206	33	133	73	185	209	50	450	279	421	34	65	261	21	160	204	332	---	208	270	284	235	320	49	117	167	90	159	198	50	216	33	200	---	368	166	57
Jan. 23------	280	368	249	280	(160)	155	---	292	69	534	270	388	281	262	---	285	343	147	308	258	174	260	179	201	295	62	364	153	234	73	73	51	132	278	258	---	408	262	276
Jan. 24------	288	363	264	161	350	338	285	336	84	296	240	371	168	240	305	37	298	346	186	251	85	248	246	207	266	93	386	98	189	---	45	63	75	166	262	---	396	196	66
Jan. 25------	256	362	259	54	248	172	208	146	92	329	193	445	73	249	260	47	60	183	105	227	92	256	268	194	212	62	370	207	216	13	25	91	107	259	30	---	260	304	297
Jan. 26------	286	365	51	37	320	324	117	157	44	412	83	410	269	204	242	164	79	354	355	45	64	241	318	254	162	270	348	57	79	36	37	60	35	25	63	---	388	394	35
Jan. 27------	285	355	265	234	336	323	256	328	35	525	63	278	395	223	246	43	366	330	340	259	117	179	302	94	271	397	377	152	136	94	93	125	129	182	319	---	402	430	190
Jan. 28------	269	386	182	407	373	371	202	341	---	463	93	354	393	75	298	176	364	370	417	---	221	188	362	144	181	398	391	126	53	191	209	382	199	182	318	---	265	426	58
Average--------	281	338	211	172	(274)	251	209	259	63	430	174	381	230	188	269	111	239	276	292	208	137	235	280	190	244	190	336	137	142	94	97	117	128	161	207	---	355	311	140
Jan. 29------	251	377	218	394	366	350	157	319	24	562	150	446	---	224	283	325	368	367	417	---	225	235	370	146	130	393	376	130	185	172	200	383	184	138	314	---	460	457	149
Jan. 30------	277	386	233	---	381	334	293	222	36	507	149	446	388	47	93	223	365	367	415	---	239	221	370	265	133	313	386	229	38	185	(158)	379	192	162	302	---	459	453	110
Jan. 31------	295	387	92	416	377	342	94	314	18	556	214	477	388	301	227	345	364	375	418	---	194	156	368	156	123	402	385	130	262	129	176	365	163	255	317	---	430	459	329
Feb. 1------	288	389	211	369	340	324	290	60	71	334	228	452	411	148	111	180	366	372	417	---	206	206	355	265	192	369	389	277	92	135	181	365	175	143	323	---	456	459	70
Feb. 2------	285	392	121	362	316	365	123	242	112	545	262	404	---	162	264	264	373	377	411	---	242	233	359	195	184	306	334	124	107	148	224	351	195	216	319	452	344	446	121
Feb. 3------	301	400	174	383	328	369	181	327	48	568	253	410	405	57	309	325	366	382	416	184	141	268	356	198	161	363	303	91	37	101	61	274	293	175	325	254	436	456	101
Feb. 4------	313	407	276	356	298	375	246	328	---	513	255	413	416	194	304	329	383	384	420	250	181	185	336	114	151	381	316	62	185	135	156	321	---	291	339	462	350	454	325
Average--------	287	391	189	380	344	351	197	259	51	512	216	435	402	162	227	284	369	375	416	---	204	215	359	191	153	361	355	149	129	143	(165)	348	200	197	320	---	420	455	172

Note.--Langley is the unit used to denote one gram calorie per square centimeter.
Values in parentheses are interpolated.

TOTAL OZONE DATA

The total amount of ozone is expressed in 10^{-3} cm. at STP. These data are provisional values applicable to local noon, and are obtained from measurements with a Dobson ozone spectrophotometer using the sun or zenith sky as a light source (see explanation below).

JANUARY 1962

Station	Day of month																														
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31
Bismarck, N. Dak.	---	326	---	---	334	---	380	---	---	277	---	314	---	---	383	378	343	403	348	---	364	381	309	285	---	---	---	---	260	---	---
Caribou, Maine	---	392	---	350	---	327	---	354	---	382	358	249	---	---	---	413	---	443	454	387	399	---	---	---	309	321	---	384	412	---	536
Green Bay, Wis.	300	327	---	---	---	---	---	---	---	374	---	---	---	---	369	395	359	348	---	366	---	327	281	286	---	322	309	---	---	368	---
Hallett Station	251	*240	*250	*262	273	*263	*230	*248	*230	*233	*238	*234	*233	*240	*256	*238	*236	*190	*230	*223	268	*230	†250	---	265	228	240	*253	*244	*260	*228
Mauna Loa, Hawaii	249	252	259	267	263	261	251	241	248	260	269	259	261	283	294	290	290	---	275	268	260	261	283	297	293	269	271	255	247	249	248
Midland, Texas	---	---	---	235	---	---	279	256	---	---	235	229	254	---	235	220	230	267	---	---	---	---	---	---	---	---	255	270	264	231	240
Nashville, Tenn.	---	---	326	---	---	---	---	374	---	305	300	278	279	304	---	328	322	---	---	---	---	---	246	---	---	---	---	343	340	326	297
Sterling, Va.	---	390	*334	314	316	---	310	†382	*331	313	---	293	283	---	---	340	351	*327	*343	297	---	318	354	*367	322	*310	---	---	*360	*366	392

The spectrophotometer measures the total amount of ozone in the atmosphere, i.e., the amount contained in a vertical column of air extending from the ground to the top of the atmosphere in the vicinity of the station. The amount of ozone in this column is expressed in terms of thickness of a layer it would occupy at standard temperature and pressure.

The standard method of measurement is that on direct sun using A(3055Å and 3254Å) and D(3176Å and 3398Å) wavelength pairs. Observations made on the clear zenith sky are slightly less accurate, and are marked with a dagger (†). Observations made on zenith cloud are least reliable, and are marked with an asterisk (*). A detailed description of the spectrophotometer and observational procedures may be found in the "Observers' Handbook For the Ozone Spectrophotometer", Annals of the International Geophysical Year, Volume V, Pergaman Press, 1957.

DESCRIPTION of CHARTS

CHART I., A. AVERAGE TEMPERATURE (°F.) AT SURFACE. B. DEPARTURE OF AVERAGE TEMPERATURE FROM NORMAL. -The average monthly temperature presented in Chart I-A is computed from the average daily maximum and the average daily minimum which in turn are computed from the daily maximum and minimum temperatures reported by some 870 Weather Bureau and cooperative stations. The departures from normal are presented in Chart I-B. They are based on the 30-year normals (1931-60) for the first-order Weather Bureau stations. More detailed charts, based upon data for many more stations, are included in the issues of Climatological Data for the several states and groups of states.

CHART II. TOTAL PRECIPITATION. - Chart II is based on daily precipitation records at about 870 Weather Bureau and cooperative stations. More detailed charts, based upon data for many more stations, are included in the issues of Climatological Data for the several states and groups of states.

CHART III. PERCENTAGE OF NORMAL PRECIPITATION. -In this chart the anomaly in the month's precipitation is shown as a percentage of the normal total. This anomaly shows the deviation from the 30-year normal (1931-60) for about 270 first-order Weather Bureau stations.

CHART IV. TOTAL SNOWFALL. CHART V. A. PERCENTAGE OF MEAN MONTHLY SNOWFALL. B. DEPTH OF SNOW ON GROUND. -Chart IV gives the total depth in inches of unmelted snowfall as reported during the month by Weather Bureau and cooperative stations. This is converted in Chart V-A into a percentage of the mean monthly total amount computed for each Weather Bureau station having at least 10 years of record. The depth of snow on ground is that reported by both Weather Bureau and cooperative stations as of 7:00 a. m. Eastern Standard Time on the Monday nearest the end of the month. This is reported only for the months December through March. The snowfall charts are presented each month November through April.

> Isolines for Charts I, II, III, IV, and V, are drawn through points of approximately equal value. Caution should be used in interpolating on these charts, particularly in mountainous areas.

CHART VI. A. PERCENTAGE OF POSSIBLE SUNSHINE. B. PERCENTAGE OF MEAN MONTHLY SUNSHINE. -CHART VI-A shows the amount of sunshine received in terms of percentage of the total hours of sunshine possible during the month. In Chart VI-B this is shown as a percentage of the mean number of hours of sunshine received. Means are computed for Weather Bureau stations having at least 10 years of record.

CHART VII. A. AVERAGE DAILY VALUES OF SOLAR RADIATION, LANGLEYS. B. PERCENTAGE OF MEAN DAILY SOLAR RADIATION. -Shown on Chart VII-A are the monthly averages of daily total solar radiation, both direct and diffuse, in langleys (gm. cal. cm. $^{-2}$) for all Weather Bureau stations which record this element. Supplementary data for which limits of accuracy are wider than for those data shown are drawn upon in making the analysis. Chart VII-B shows the percentages of the mean based on the period 1953-57.

CHART VIII. -TRACKS OF CENTERS OF ANTICYCLONES AT SEA LEVEL.

CHART IX. TRACKS OF CENTERS OF CYCLONES AT SEA LEVEL. -Centers which can be identified for 24 hours or more are tracked in these charts. Semi-permanent features such as the Great Basin and Pacific Highs and Colorado and Mexico Lows are not shown. The 7:00 a. m. EST positions are shown by open circles, with the intermediate positions at 6-hour intervals shown by solid dots. The date is given above the circle and the central pressure to whole millibars below. A dashed track indicates a regeneration rather than actual movement to the next position. Solid squares indicate position of stationary center for period shown beside it.

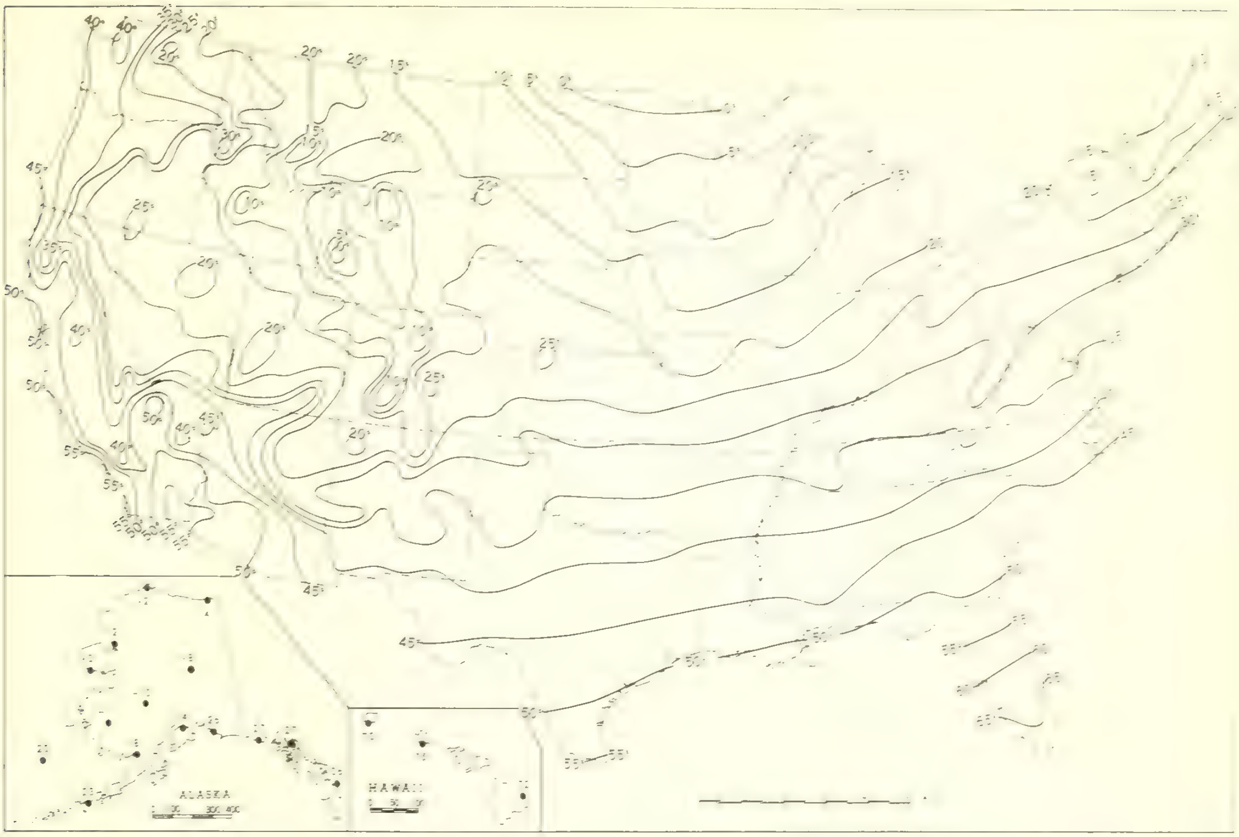
CHART X. AVERAGE SEA LEVEL PRESSURE (mb.) AND SURFACE WINDROSES. -The average monthly sea level pressure is obtained from the averages of the 7:00 a. m. and 7:00 p. m. EST pressures reported at Weather Bureau stations. Windroses are based on the hourly wind directions (to 16 points of the compass) reported by Weather Bureau stations, each circle or arc indicating 5 percent of the time. The inset shows the departure of the average pressure based on 30-year normals for first-order Weather Bureau Stations, other stations having at least 10 years of record, and, for each 10° intersection in a diamond grid over the oceans, from interpolated values read from the Historical Weather Maps for the 20 years of best coverage prior to 1940.

CHARTS XI-XVI. AVERAGE HEIGHT, TEMPERATURE, AND RESULTANT WINDS, 850, 700, 500, 300, 200, and 100 mb. -Height is given in geopotential meters and temperature in degrees Celsius. These are the averages of the 1200 GMT radiosonde reports. Wind speeds are given in knots; flag represents 50 knots, full feather 10 knots, and half feather 5 knots. Directions are shown to 360° of the compass. Winds are based on rawins at the indicated pressure surface and at 1200 GMT.

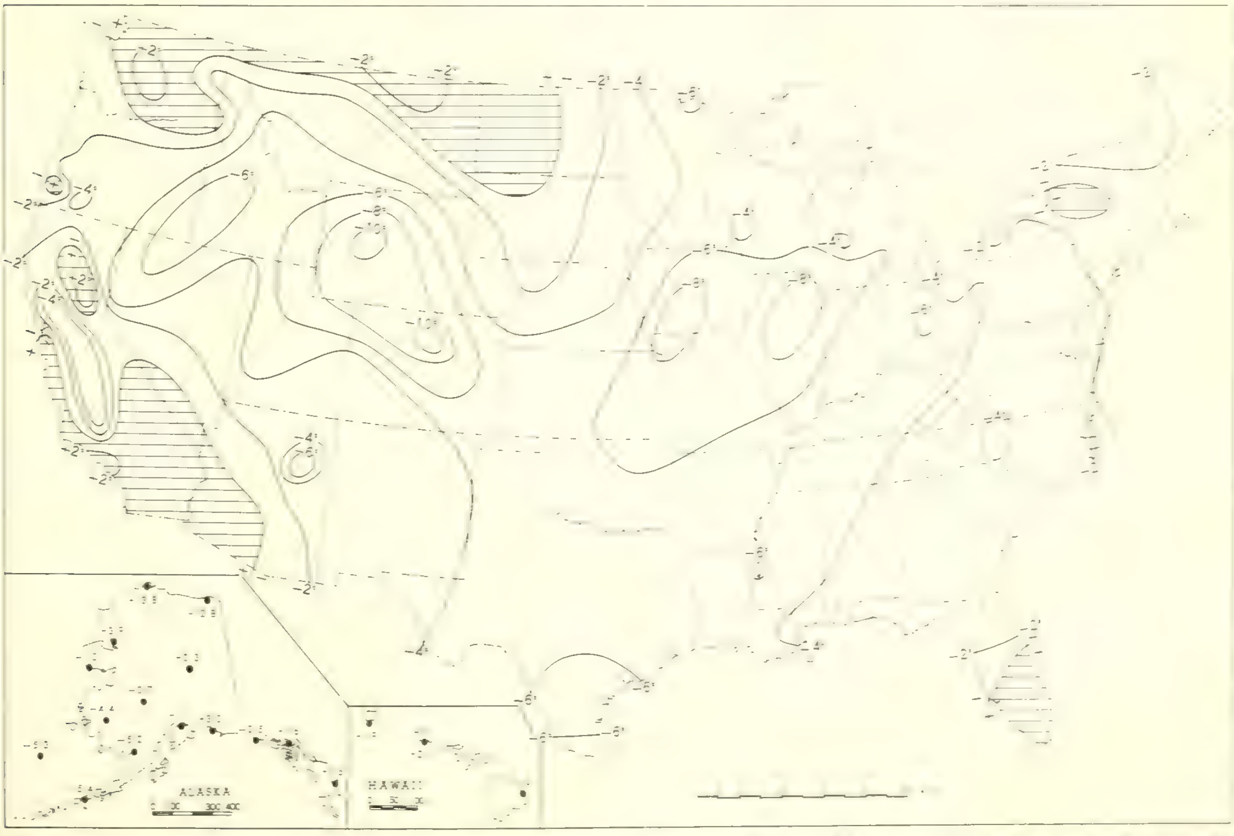
CHART XVII. A. 50-MB. RESULTANT WINDS. B. 30-MB. RESULTANT WINDS. -Wind speed (isotachs) in knots. Arrows show resultant wind direction. Winds are based on rawins at the indicated pressure surface and at 1200 GMT.

Exact values of most of these charted elements for Weather Bureau stations are printed each month in tabular form in CLIMATOLOGICAL DATA, NATIONAL SUMMARY. Extreme values of temperature and precipitation for each state are included in the tables, Condensed Climatological Summary. Annual averages are presented in the CDNS Annual Issue each year.

Chart I. A. Average Temperature (°F.) at Surface, January 1962.



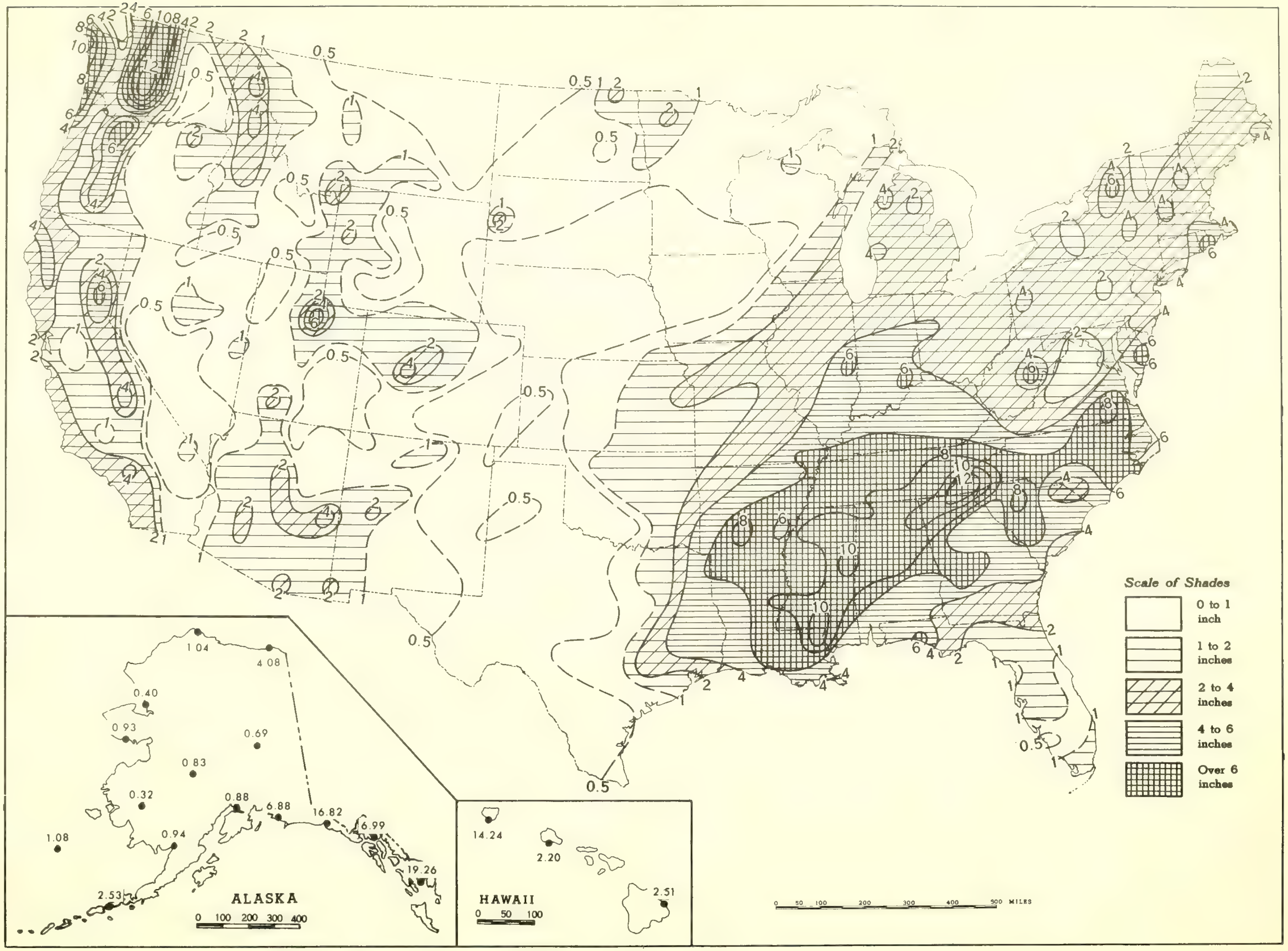
B. Departure of Average Temperature from Normal (°F.), January 1962.



A. Based on reports from over 870 Weather Bureau and cooperative stations. The monthly average is half the sum of the monthly average maximum and monthly average minimum, which are the average of the daily maxima and daily minima, respectively.

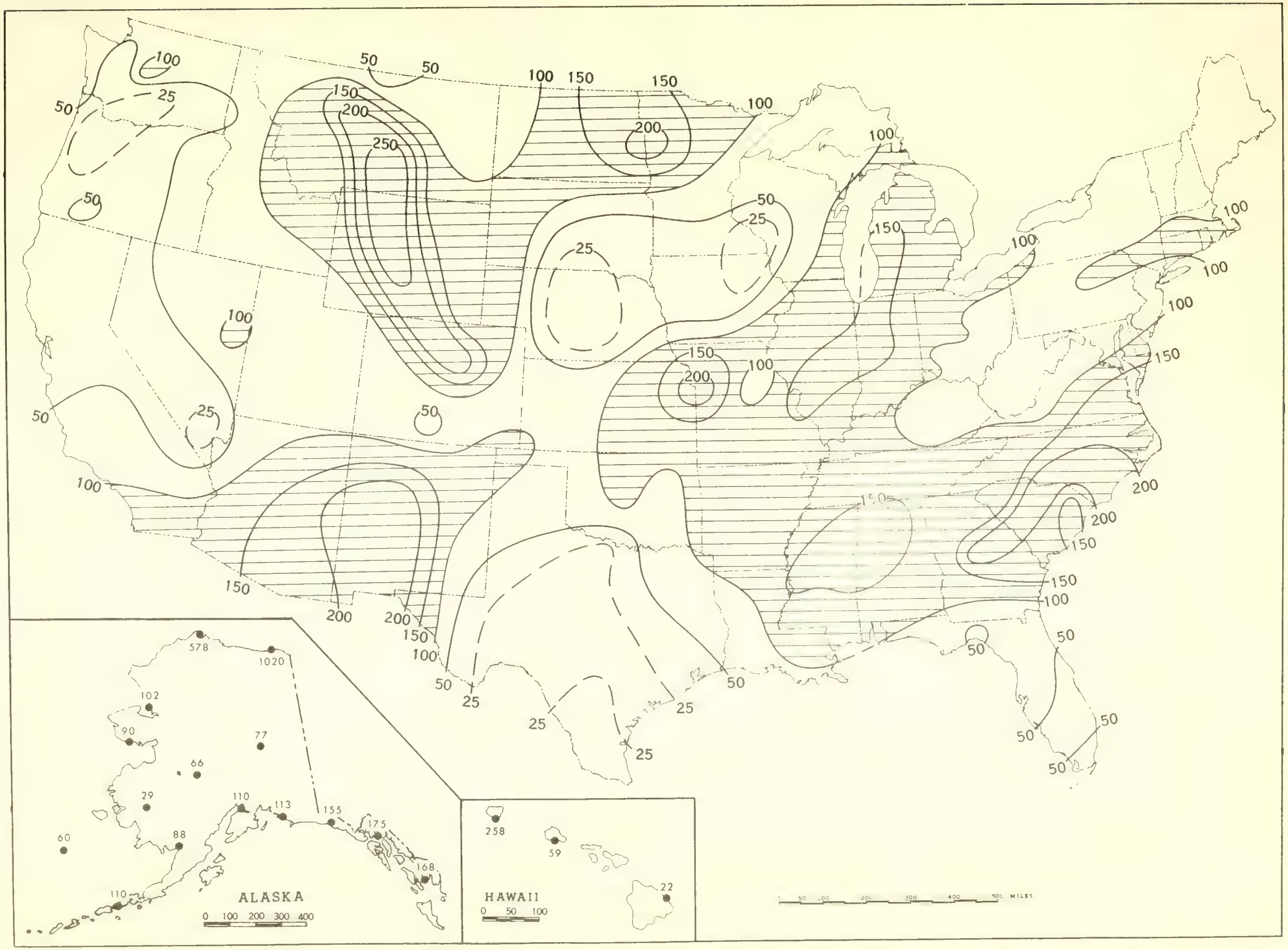
B. Departures from normal are based on the 30-yr. normals (1921-50) for first-order Weather Bureau stations.

Chart II. Total Precipitation (Inches), January 1962.



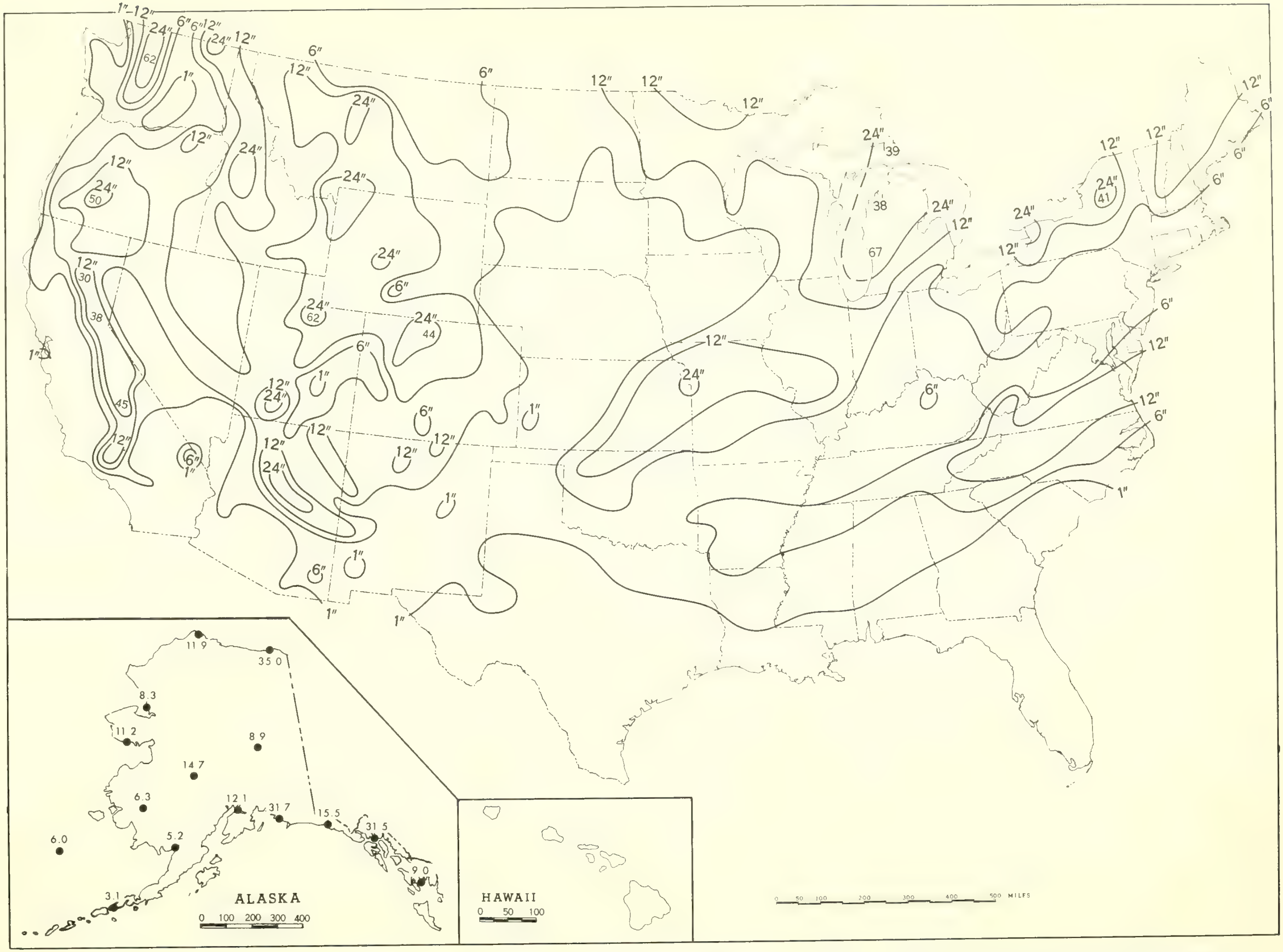
Based on daily precipitation records at about 870 Weather Bureau and cooperative stations.

Chart III. Percentage of Normal Precipitation, January 1962.



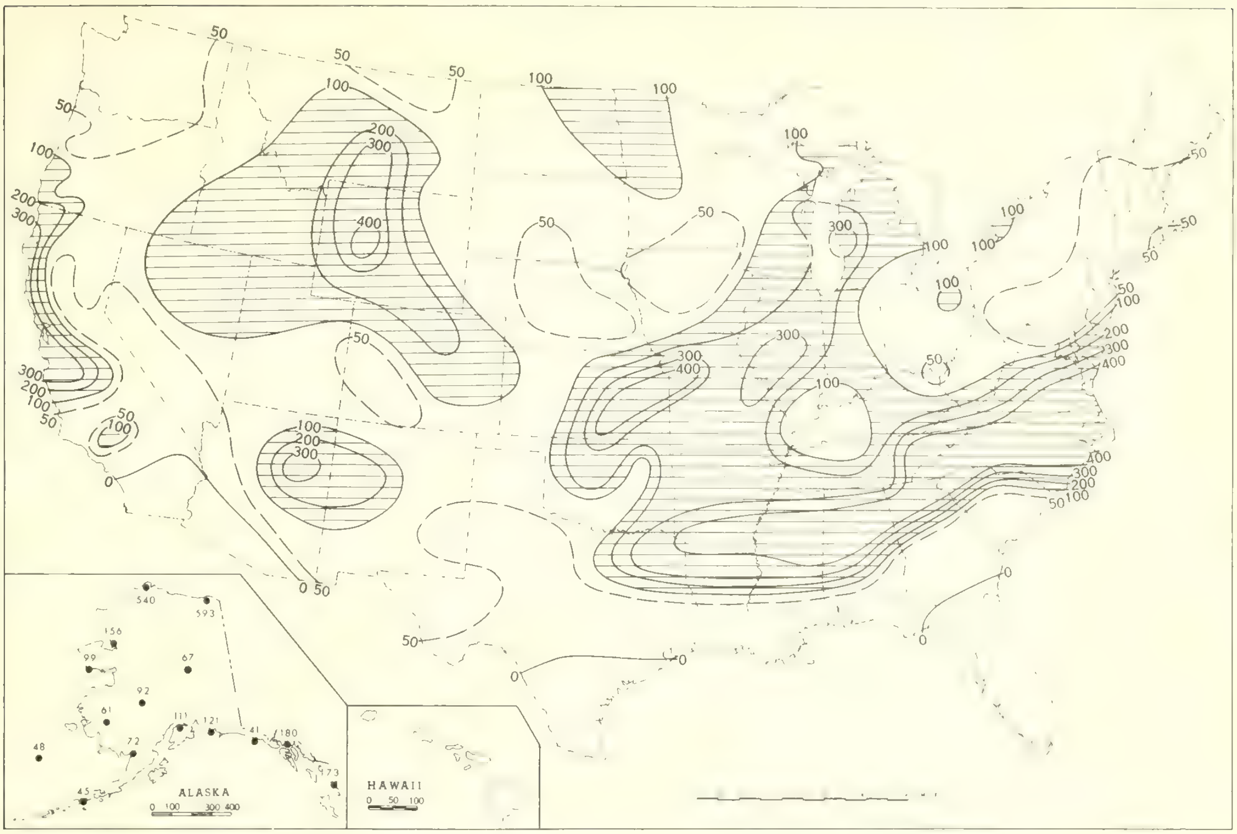
Normal monthly precipitation amounts are computed from the records for 1921-50 for first-order Weather Bureau stations.

Chart IV. Total Snowfall (Inches), January 1962.

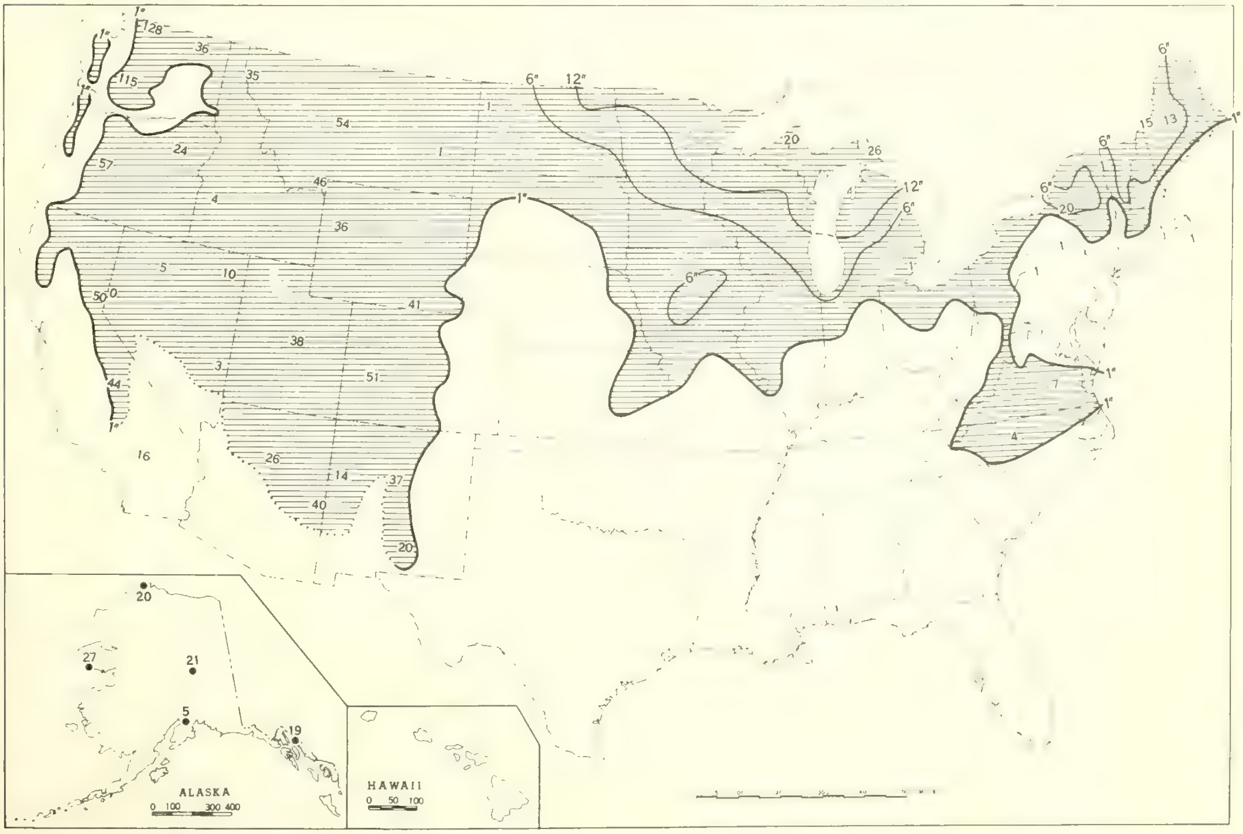


This is the total of unmelted snowfall recorded during the month at Weather Bureau and cooperative stations. This chart and Chart V are published only for the months of November through April although of course there is some snow at higher elevations, particularly in the far West, earlier and later in the year.

Chart V. A. Percentage of Mean Monthly Snowfall, January 1962.

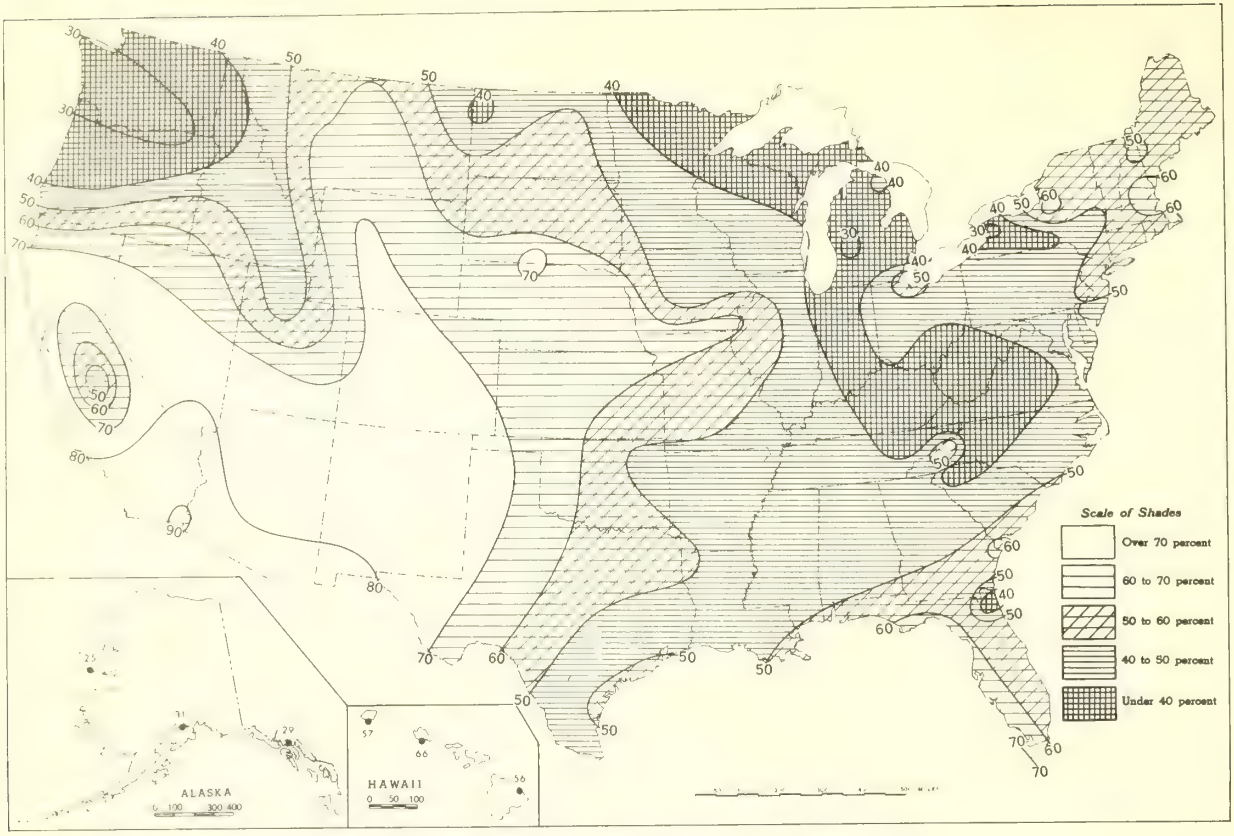


B. Depth of Snow on Ground (Inches), 7:00 a. m. E. S. T., January 29, 1962.

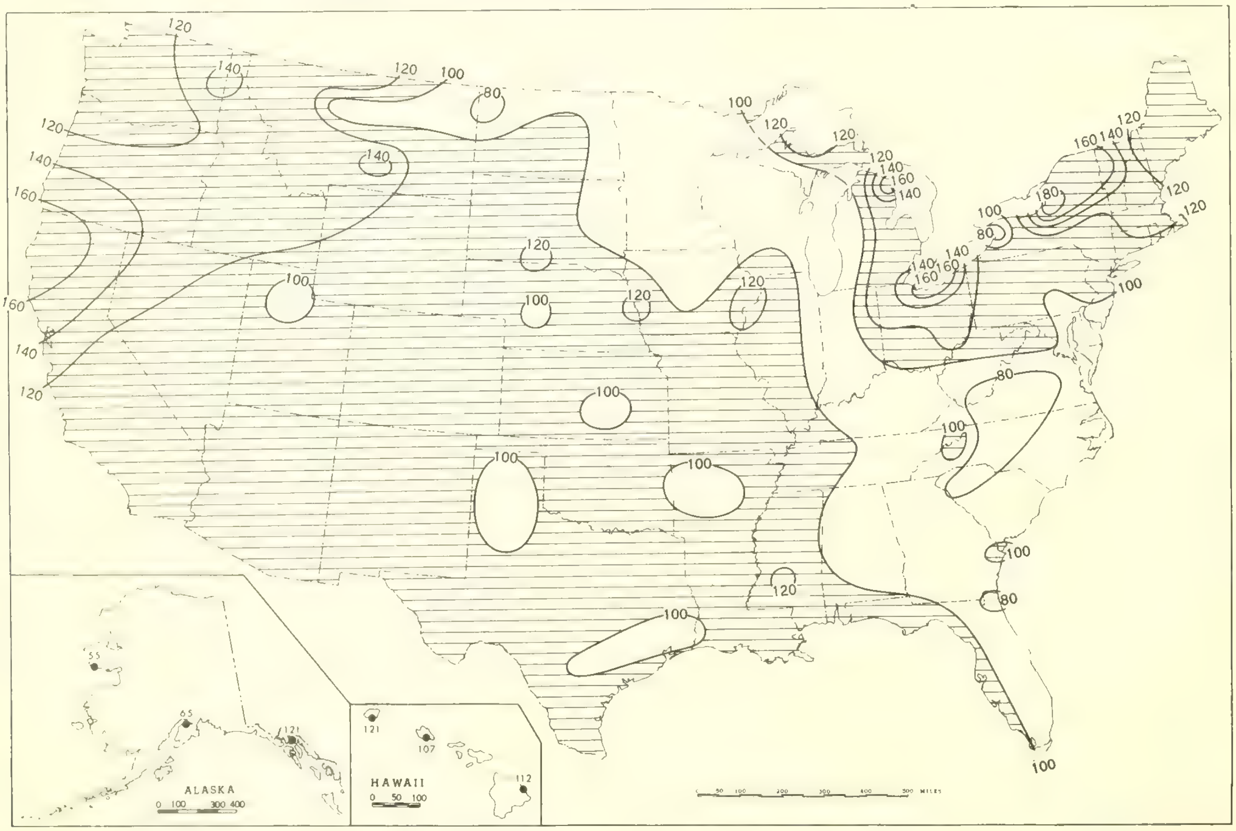


A. Amount of mean monthly snowfall is computed for Weather Bureau stations having at least 10 years of record.
B. Shows depth currently on ground at 7:00 a. m. E.S.T., of the Monday nearest the end of the month.
It is based on reports from Weather Bureau and cooperative stations.

Chart VI. A. Percentage of Possible Sunshine, January 1962.

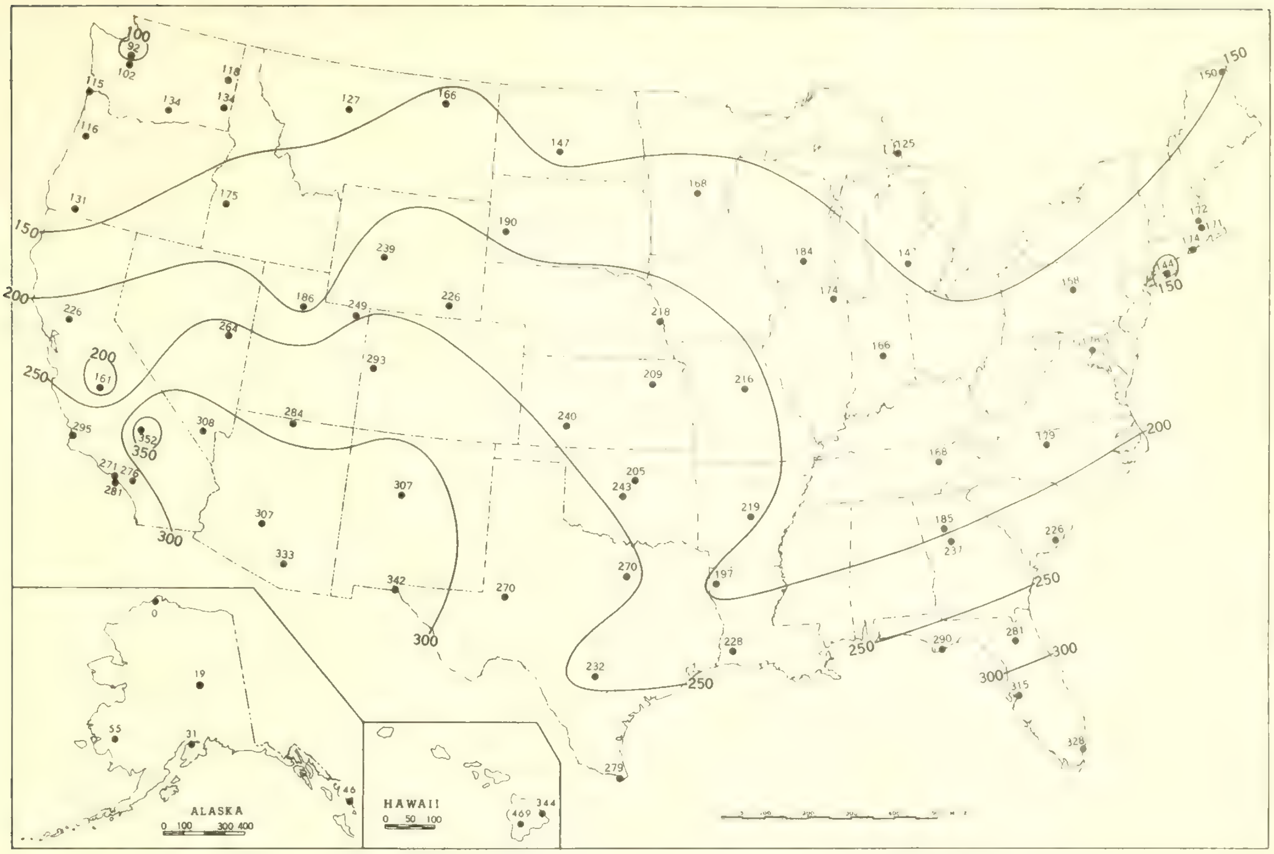


B. Percentage of Mean Monthly Sunshine, January 1962.

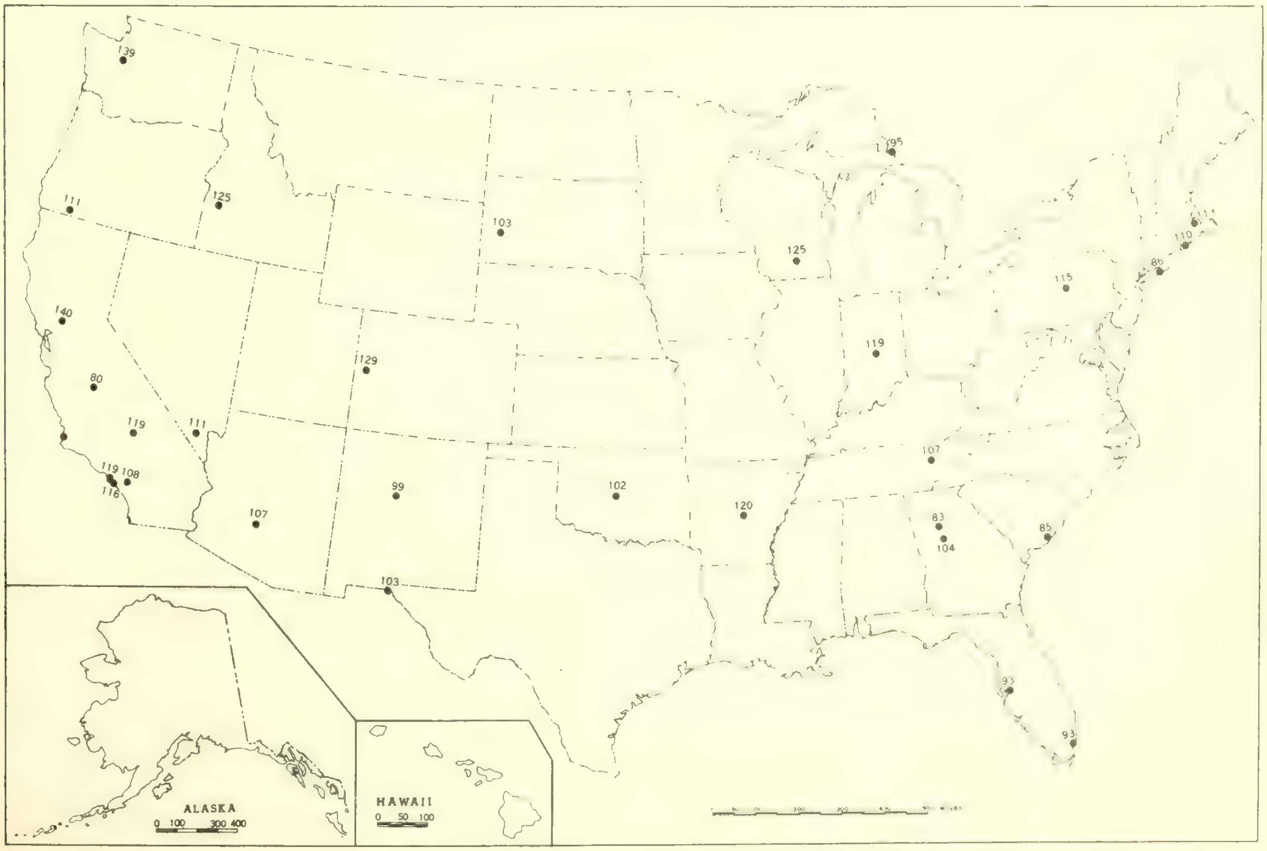


A. Computed from total number of hours of observed sunshine in relation to total number of possible hours of sunshine during month. B. Means are computed for stations having at least 10 years of record.

Chart VII. A. Average Daily Values of Solar Radiation, Langleys, January 1962.



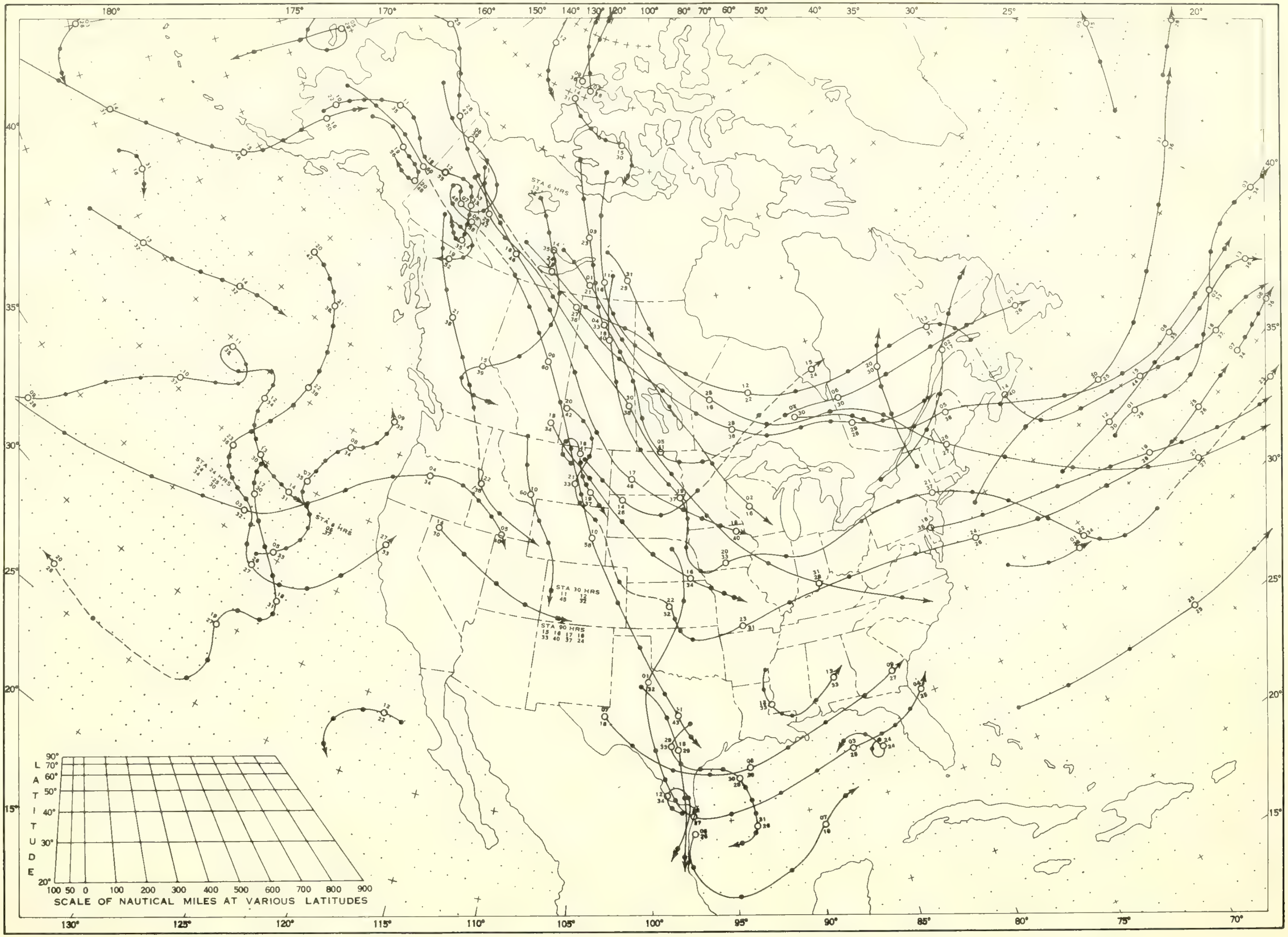
B. Percentage of Mean Daily Solar Radiation, January 1962.



A. Mean daily solar radiation, direct + diffuse, received on a horizontal surface in langleys (1 langley = 1 gm. cal. cm.) and recorded in International Pyrheliometer Scale of 1956.

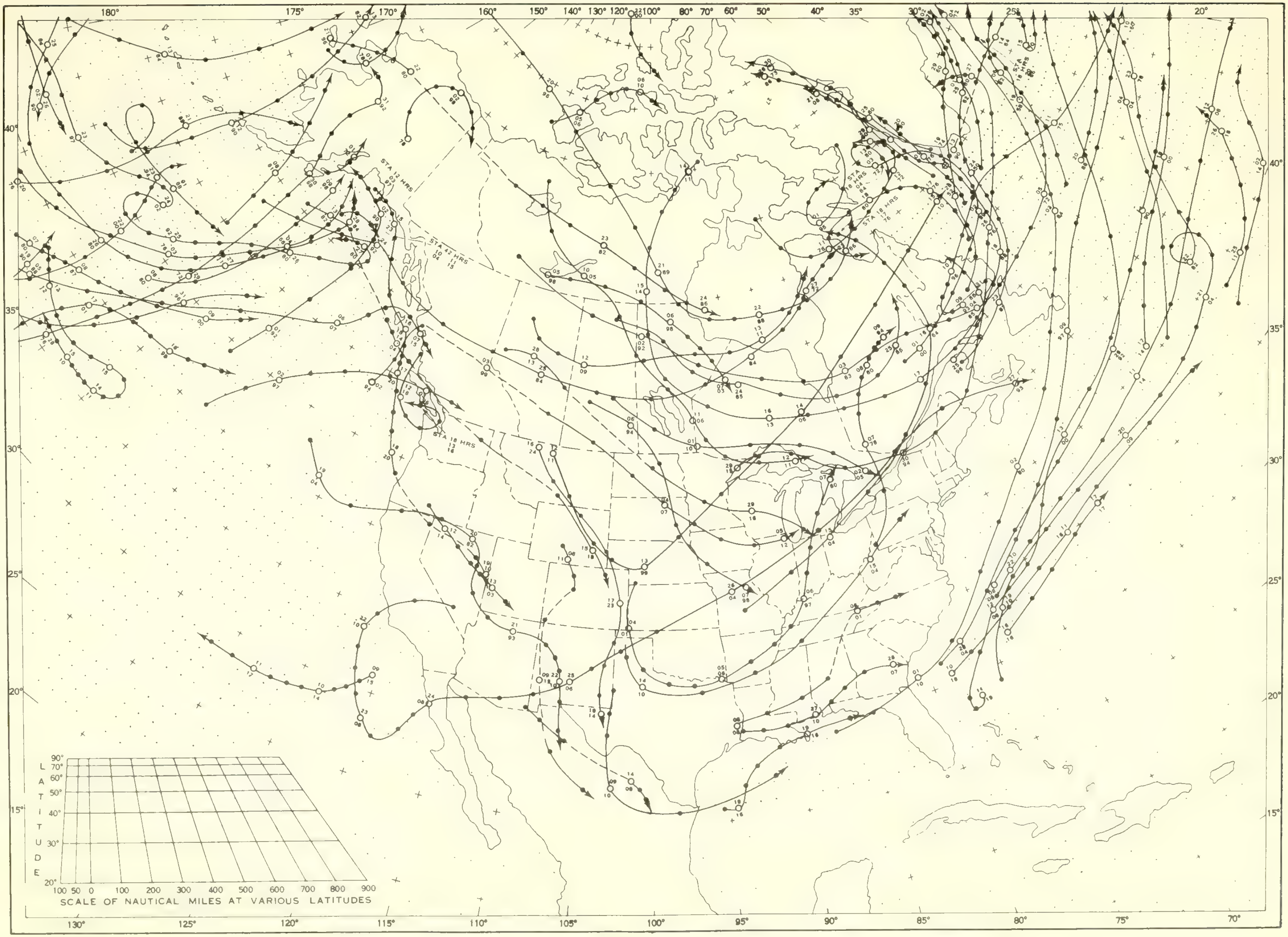
B. Percentage of the mean based on the period 1953-57, and corrected to the International Pyrheliometer Scale of 1956.

Chart VIII. Tracks of Centers of Anticyclones at Sea Level, January 1962.



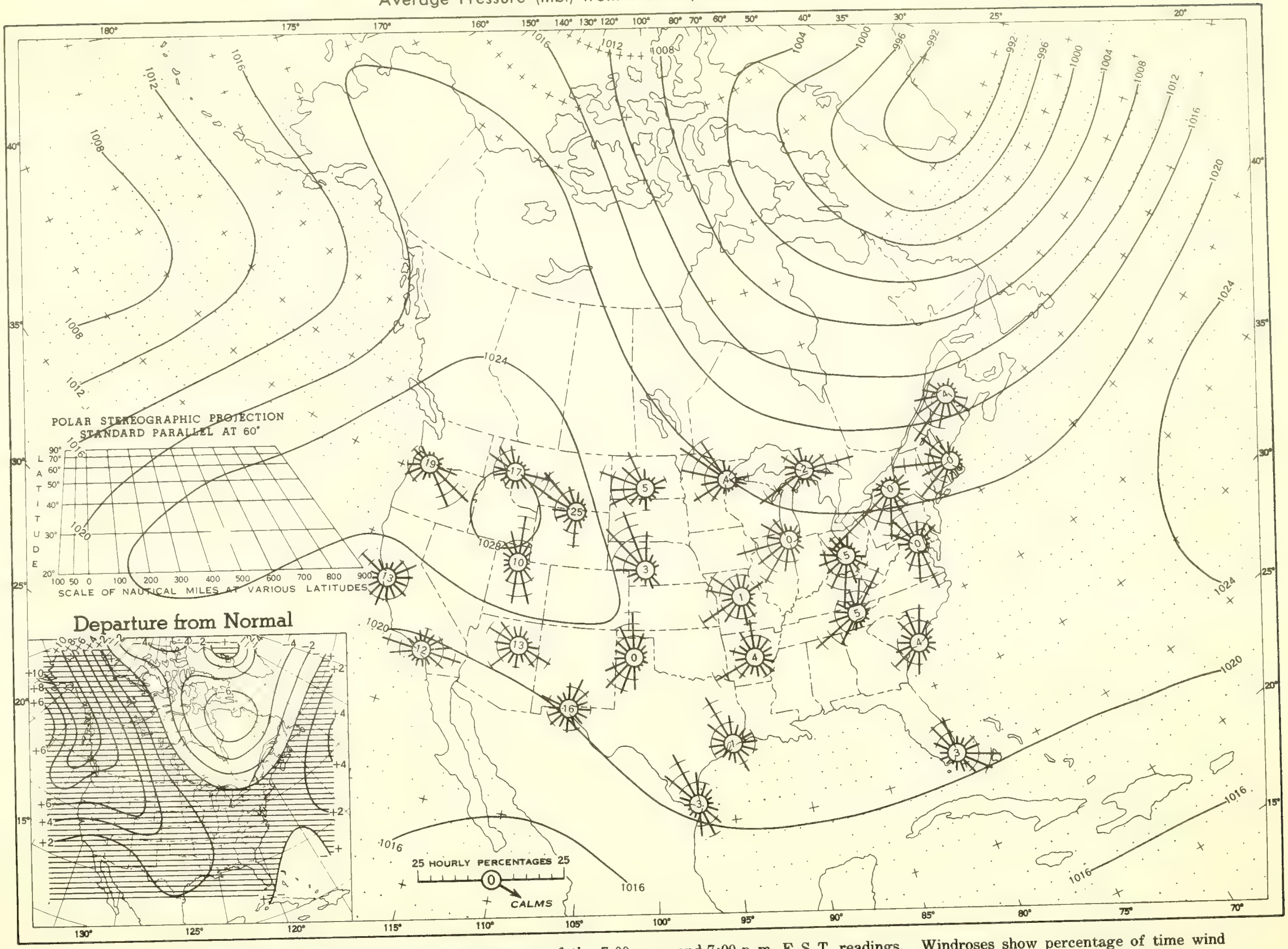
Circle indicates position of center at 7:00 a. m. E. S. T. Figure above circle indicates date, figure below, pressure to nearest millibar. Dots indicate intervening 6-hourly positions. Squares indicate position of stationary center for period shown. Dashed line in track

Chart IX. Tracks of Centers of Cyclones at Sea Level, January 1962.



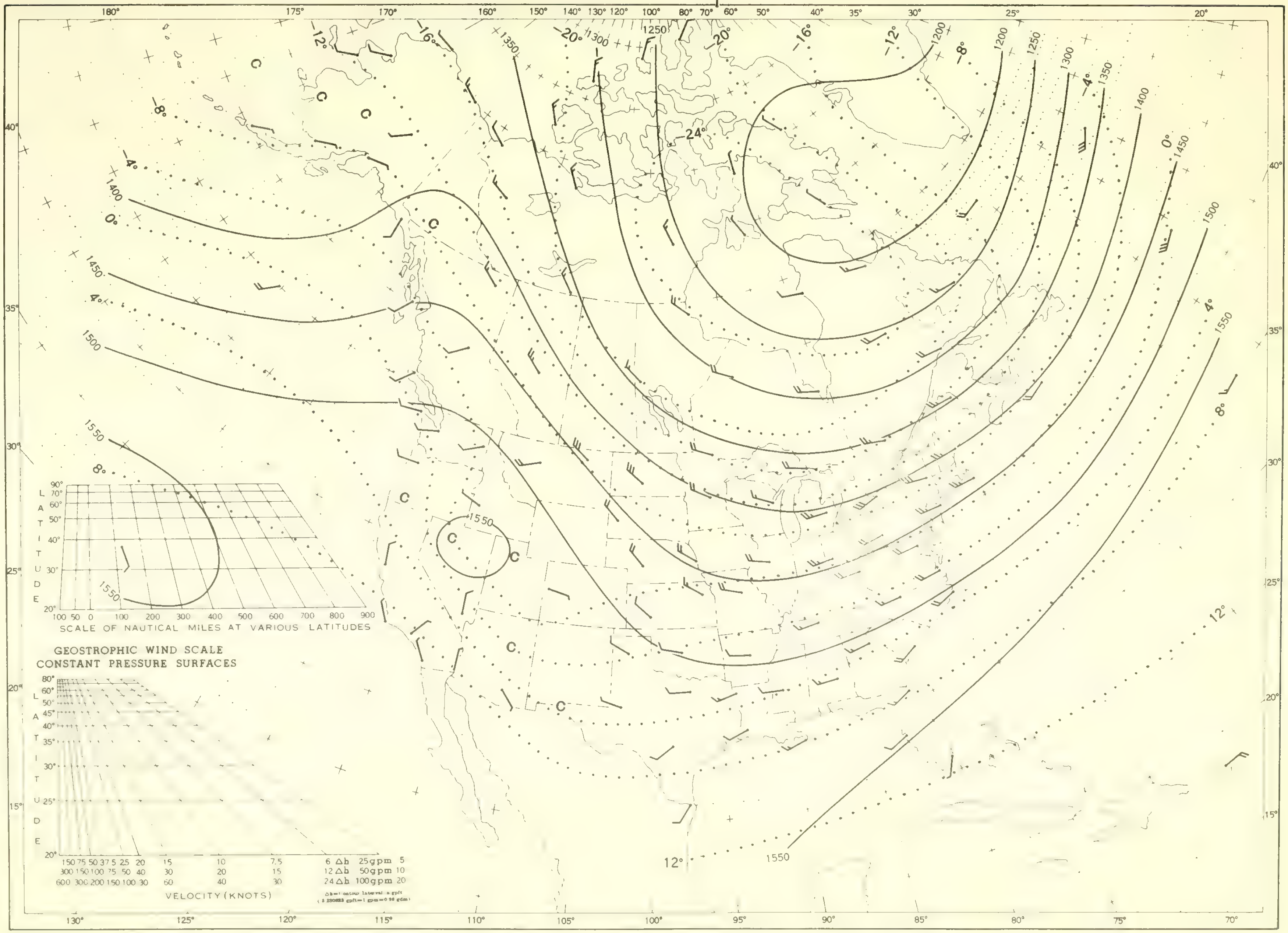
Circle indicates position of center at 7:00 a. m. E. S. T. See Chart VIII for explanation of symbols.

Chart X. Average Sea Level Pressure (mb.) and Surface Windroses, January 1962. Inset: Departure of Average Pressure (mb.) from Normal, January 1962.



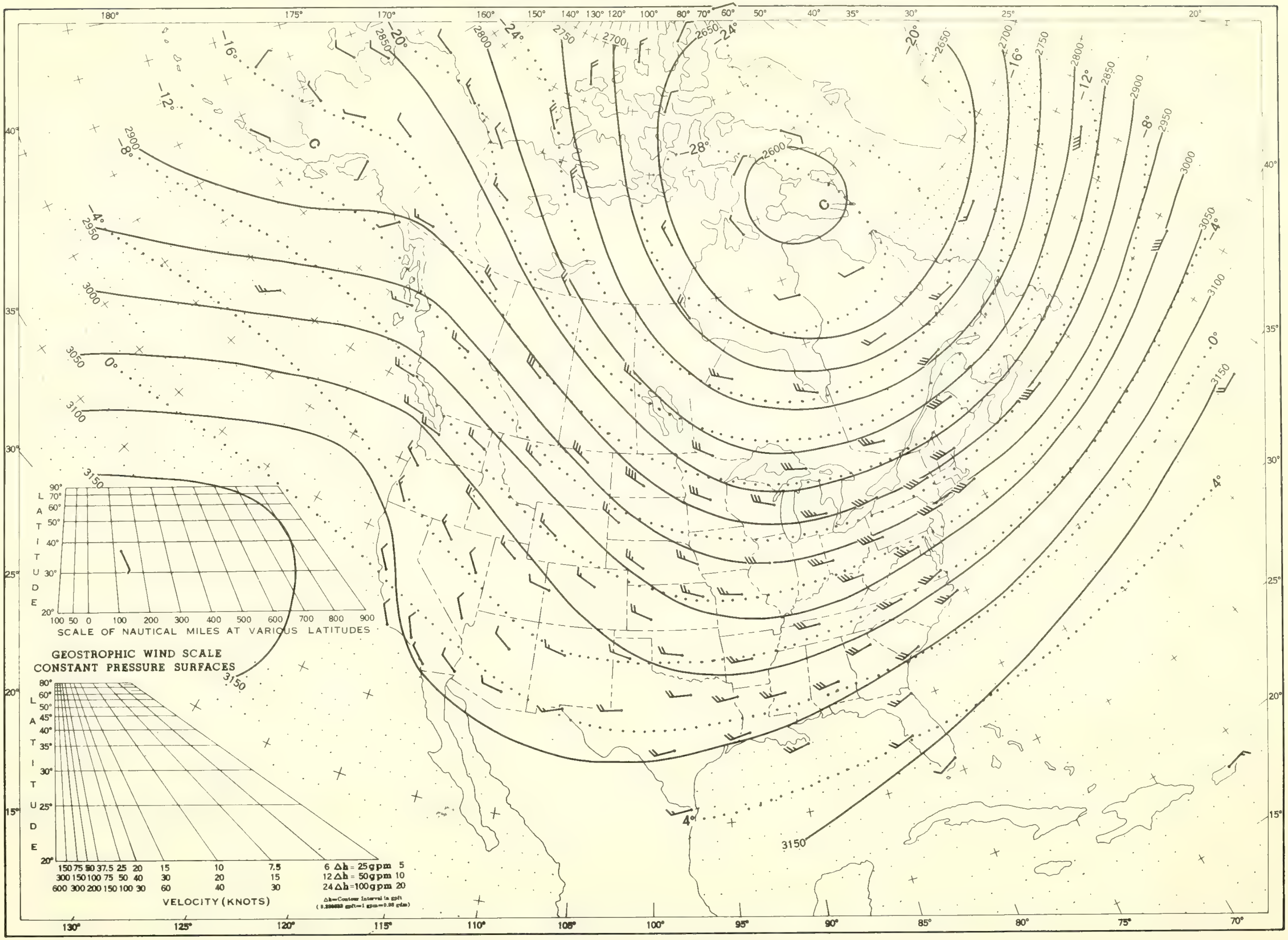
Average sea level pressures are obtained from the averages of the 7:00 a. m. and 7:00 p. m. E. S. T. readings. Windroses show percentage of time wind blew from 16 compass points or was calm during the month. Pressure normals are computed for stations having at least 10 years of record and for 10° intersections in a diamond grid based on readings from the Historical Weather Maps (1899-1939) for the 20 years of most complete data coverage prior to 1940.

Chart XI. 850-mb. Surface, 1200 GMT, January 1962. Average Height and Temperature, and Resultant Winds.



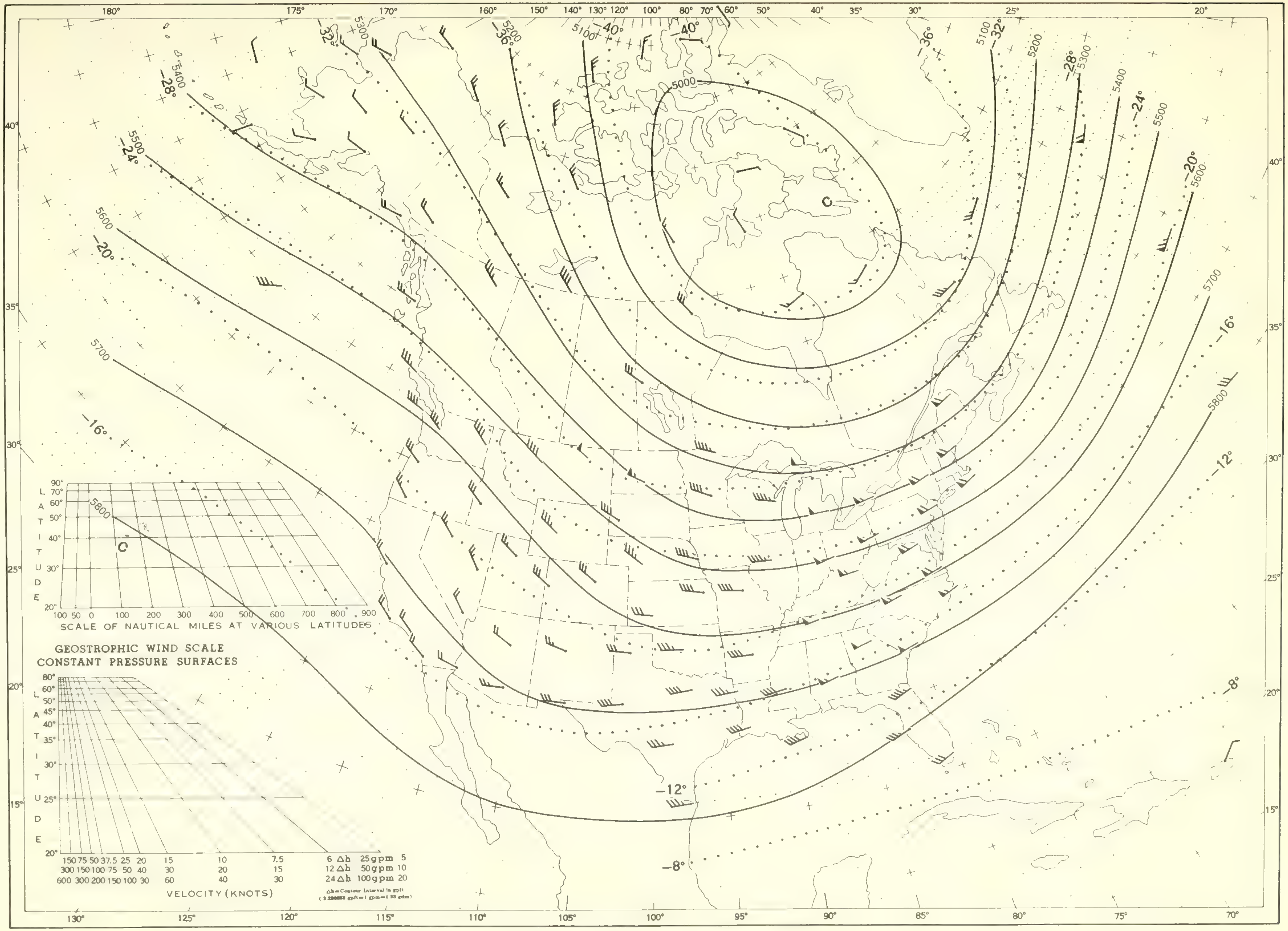
Height in geopotential meters (1 g.p.m. = 0.98 dynamic meters). Temperature in °C. Wind speed in knots; flag represents 50 knots, full feather 10 knots, and half feather 5 knots. All wind data are based on rawin observations.

Chart XII. 700-mb. Surface, 1200 GMT, January 1962. Average Height and Temperature, and Resultant Winds.



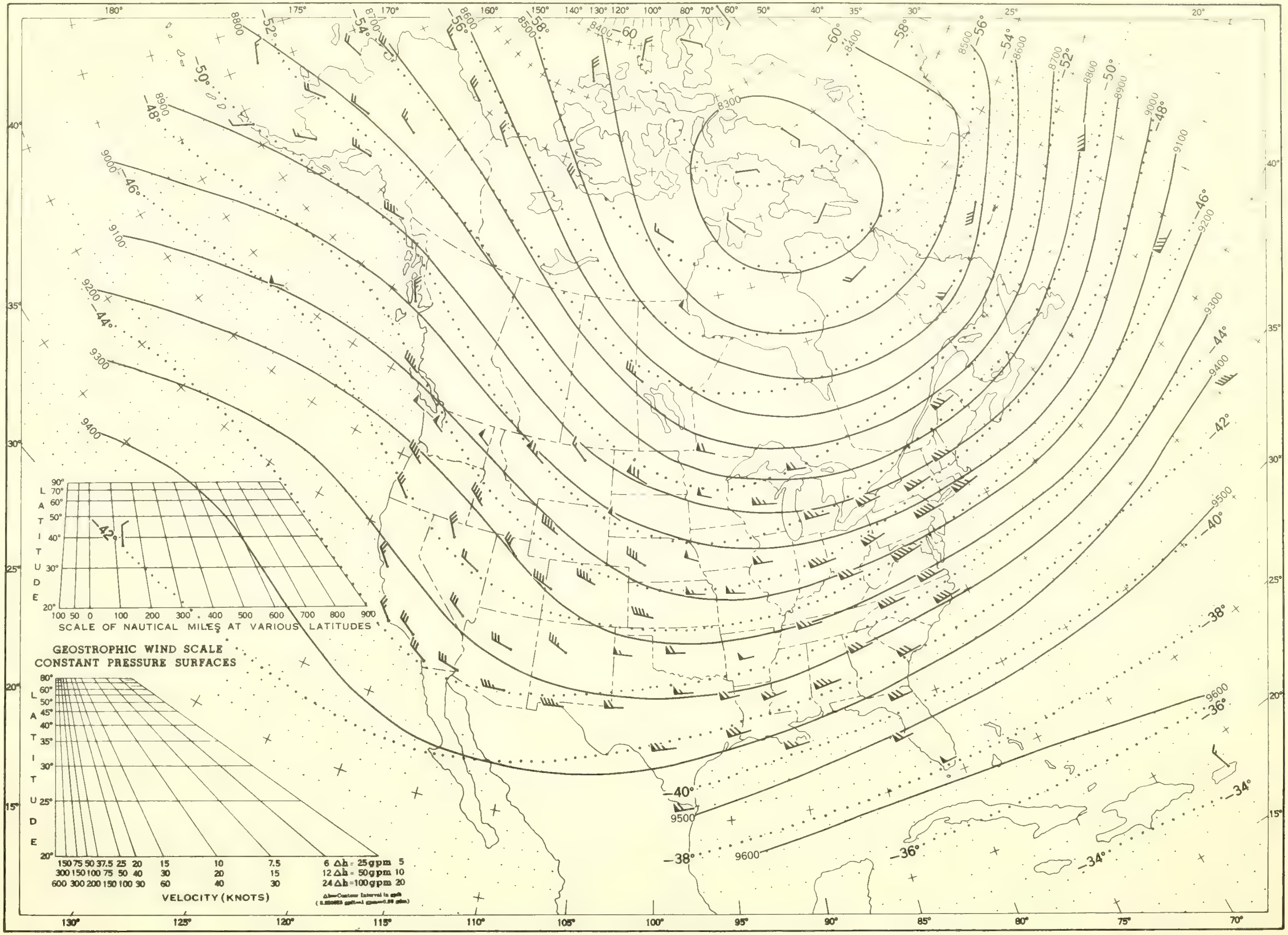
See Chart XI for explanation of map.

Chart XIII. 500-mb. Surface, 1200 GMT, January 1962. Average Height and Temperature, and Resultant Winds.



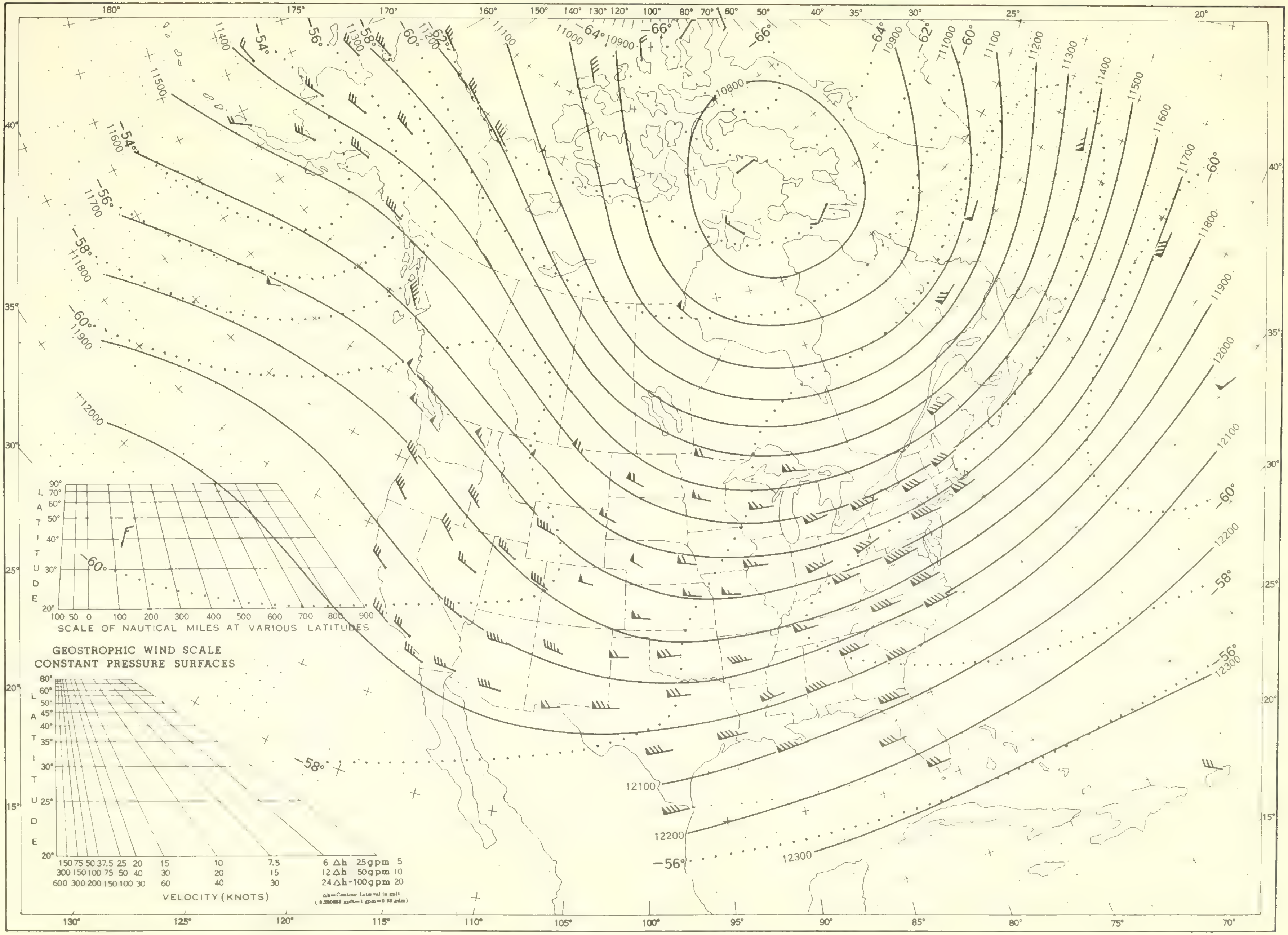
See Chart XI for explanation of map.

Chart XIV. 300-mb. Surface, 1200 GMT, January 1962. Average Height and Temperature, and Resultant Winds.



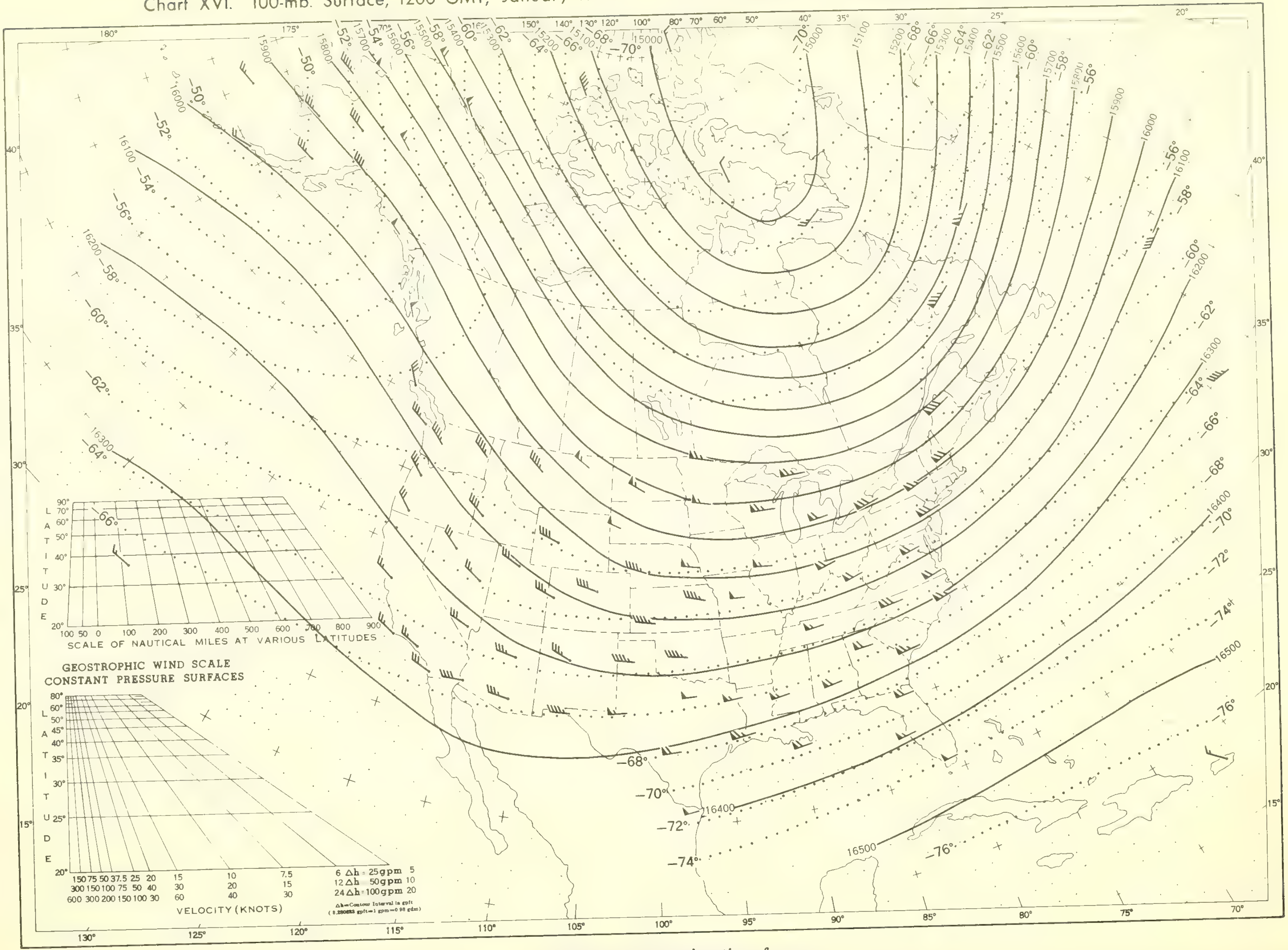
See Chart XI for explanation of map.

Chart XV. 200-mb. Surface, 1200 GMT, January 1962. Average Height and Temperature, and Resultant Winds.



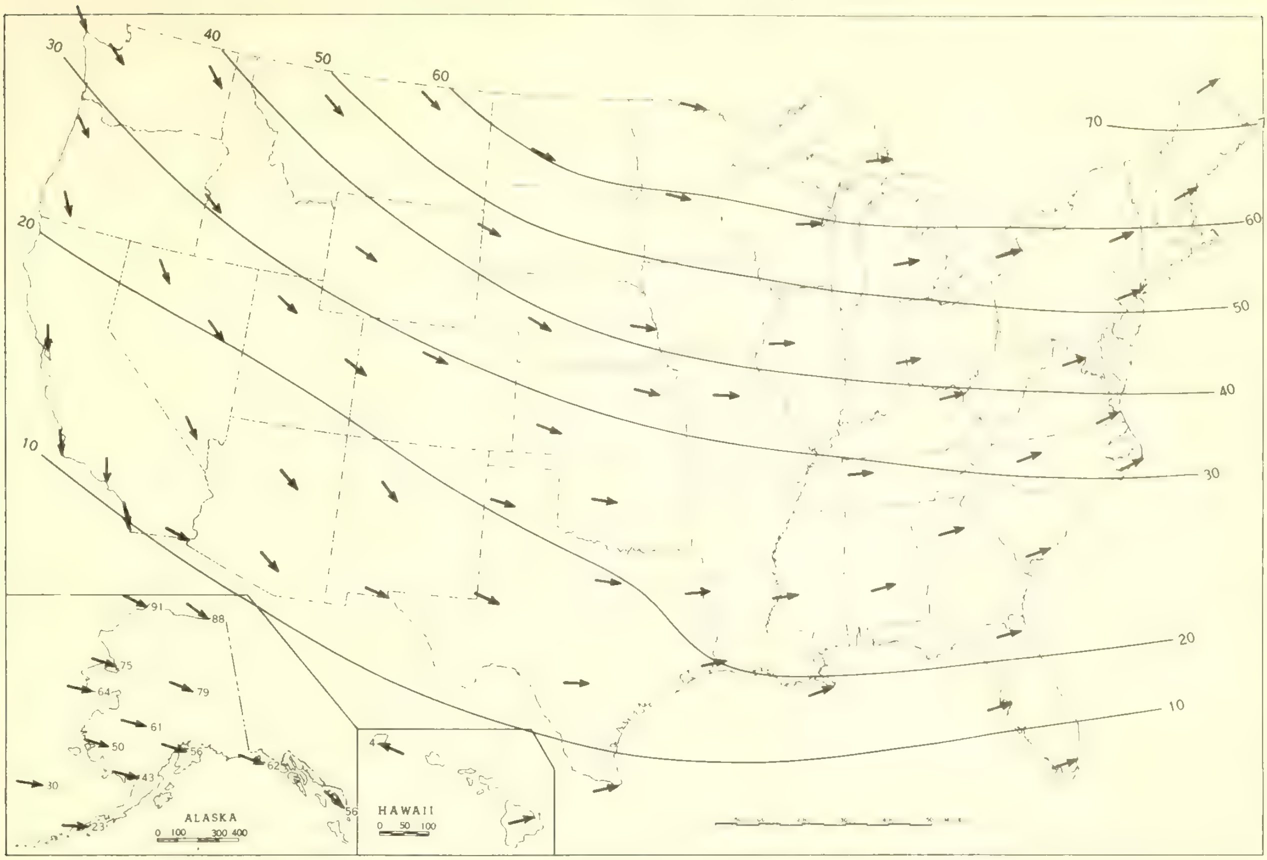
See Chart XI for explanation of map.

Chart XVI. 100-mb. Surface, 1200 GMT, January 1962. Average Height and Temperature, and Resultant Winds.

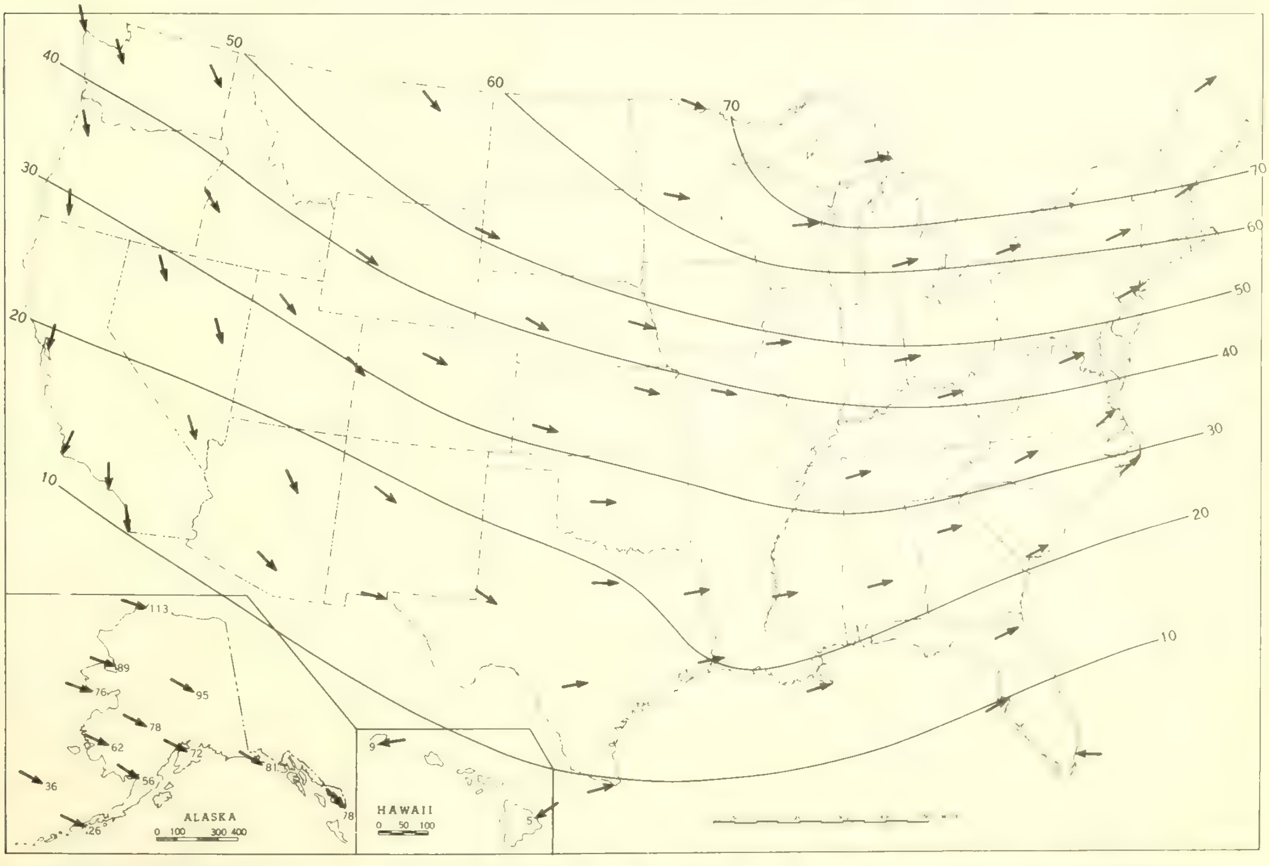


See Chart XI for explanation of map.

Chart XVII. A. 50-mb. Surface, 1200 GMT, January 1962. Resultant Winds.



B. 30-mb. Surface, 1200 GMT, January 1962. Resultant Winds.



Wind speed (isotachs) in knots. Arrows show resultant wind direction. All wind data are based on rawin observations.

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NOTE: Delayed data and corrections will be carried in the June and December issues of this publication.

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CLIMATOLOGICAL DATA

NATIONAL SUMMARY

Volume 13 No. 2 FEBRUARY 1962

GENERAL SUMMARY OF WEATHER CONDITIONS

Temperatures averaged below normal from the northern Great Plains to the Atlantic coast and in most of California, Oregon, and Nevada, and above normal elsewhere. There were wide temperature variations, however, in nearly all areas. Most areas received near, to much above normal precipitation, although a few areas were very dry, particularly Texas and southern Florida. Snowfall was unusually heavy in the Far West and in northern areas east of the Rockies.

TEMPERATURE. --Although abnormally cold weather persisted throughout most of the month in the Northeast, lowest temperatures occurred at many points during a brief cold snap at the beginning of the month. Greenville, Maine, recorded -42° on the 2d, the lowest temperature there during 56 years of record.

In most of the country, however, the coldest weather occurred during the closing days of the month. This cold wave brought extremely cold weather to the North Central Interior, where some stations recorded their lowest temperatures in many years. On the 28th, -26° at Sioux City, Iowa, was the lowest there since January 11, 1918; -39° at Huron, S. Dak., was the lowest on record there for February; and Williston, N. Dak., had -41°. The cold air also spread into the Rocky Mountain States where a number of stations recorded their lowest temperatures on record for so late in the season. Some of the late season lows included 10° at Medford, Oreg., on the 26th, and 27° and 3° at Eureka and Mount Shasta, Calif., respectively, on the 27th.

In the South and southern Great Plains, the month was generally 4° to 6° warmer than normal, and as much as 8° in southern Texas. In Texas this was the warmest February on record at Brownsville, the third warmest at San Antonio, and the warmest at Houston since 1932. A high of 84° at Port Arthur on the 9th was the highest ever recorded there in February.

The last week was unusually warm in the Southeast, with some days 15° warmer than normal. Maxima in the 80's set new records for February at a number of stations, including Augusta, Savannah, and Macon, Ga.; Charleston, S. C.; and Wilmington, N. C. On the 13th during an earlier warm spell the highest temperatures for February were recorded at Evansville, Ind., 79°; Birmingham, Ala., 82°; and Memphis and Nashville, Tenn., 81° and 84°, respectively.

The winter (December-February) of 1961-1962 has been colder than normal in most of the Nation, particularly in the central Interior where temperatures averaged from 4° to 6° below normal. This has been the coldest winter in Iowa since the winter of 1935-1936. Minneapolis, Minn., had its sixth coldest winter on record, and St. Louis, Mo., its coldest since 1905.

PRECIPITATION. --Precipitation was above normal in more than half the Nation and unusually heavy in three areas. One area included Tennessee and the Ohio Valley and extended northeastward through southern New England. More than twice the normal amounts fell in the western portion of this belt where moderate to heavy falls occurred at intervals throughout the month. Nashville, Tenn., measured 9.07 inches, the second greatest amount there for February in this century; and Cairo, Ill., had 7.38 inches, the most since 1950.

Another area of heavy precipitation included southern Minnesota, northern Iowa, and most of Nebraska and South Dakota where most of the precipitation fell as snow during the latter half of the month. Huron, S. Dak., measured 3.87 inches, over 600 percent of normal.

A third area included most of California, Nevada, Utah, and western Colorado. In California monthly totals exceeded 4 inches in much of the State and ranged up to 300 percent of normal. This was one of the wettest Februarys in that State since 1850. The following stations were among those in California that had their wettest February on record: Bakersfield, 4.42 inches; Blue Canyon, 23.21; Fresno, 5.97; and Santa Maria, 9.69 inches. Reno, Nev., had 3.69 inches, the fourth greatest total for February there since the beginning of records in 1870. The heavy precipitation ended a 3-year drought in California and boosted the water supply outlook to normal or above in all areas of the State, and greatly improved the outlook in the remainder of the Far West, except in Washington and Oregon.

The month was very dry in a few southern areas; namely, Texas and the Florida Peninsula. Precipitation was less than 25 percent of normal in most of Texas, and some extreme southern stations in the State had none at all. In southern Florida continued dry weather was responsible for short to very short soil moisture. At Lakeland, Fla., precipitation for a period of 16 months (November 1960 through February 1962) totaled 39.81 inches, the second driest such period there on record.

Precipitation for the winter has been above normal in most of the Nation. However, there were two very dry areas which included much of Texas where precipitation was less than 25 percent of normal, and the Florida Peninsula, much of which had less than half its usual winter precipitation.

SNOWFALL. --Snowfall during February was unusually heavy and extremely important in the Far West. In many sections the mountain snow pack in the Far West was below normal at the beginning of the month, but frequent storms thereafter built the pack up to normal or above nearly everywhere except in Washington and Oregon. At Norden, Calif., in the Sierras the pack increased by 6 feet and the depth was 108 inches at the end of the month.

Snowfall was also heavy in northern areas east of the Rockies. In Iowa record amounts for February were reported by Dubuque, 24.0 inches; Des Moines, 21.3; and Waterloo, 24.3 inches. The latter amount was also the greatest for any month at that station. Depths in Iowa sometimes exceeded 3 feet locally. In Michigan, Alpena had a total of 30.1 inches, the most for February since

1887; Escanaba 31.7, the most since 1884; and Muskegon 40.2 inches, the most there on record for February. Minneapolis, Minn., measured 26.5 inches, a new record for February. Huron, S. Dak., had a total of 39.9 inches, a record amount for February, and 28 inches of snow on the ground on the 28th, an alltime record. The February total at Sioux Falls, S. Dak., was 48.4 inches, the most for any month.

In the Northeast, total snowfall for the month was above normal. Concord, N. H., had 29.8 inches, the most since 1934, and a depth of 28 inches on the 26th, the deepest since 1923. Albany, N. Y., had 34.5 inches, the most since 1893, and Providence, R. I., 30.9 inches, the most in the 58-year history of the Weather Bureau there. Worcester, Mass., had 45.2 inches, the most for February since 1901.

DESTRUCTIVE STORMS AND OTHER UNUSUAL PHENOMENA. --Damaging floods and landslides occurred in southern California's coastal areas during the second week, and a small tornado 10 miles west-northwest of Burbank, Calif., damaged several homes in Northridge on the 19th. A damaging thunderstorm occurred during a storm of snow and sleet at Boston, Mass., the early morning of the 24th.

Glaze damaged trees and utility lines in Columbus and the Miami Valley of Ohio on the 22d and 23d. The glaze was 1/4 to 3/4 inch thick in the Columbus area. Glaze also damaged utility lines in Erie, Pa., on the 13th.

The wide variation in temperatures during the month were reflected in extreme temperatures which either set new records for February or equaled previous ones in nine States. On February 2; -48° in Vermont and -44° in Maine were the lowest temperatures ever recorded in those respective States during February. Record February high temperatures for five States were: Wyoming, 79° on the 11th; Tennessee, 85°, and Missouri, 90° on the 13th; North Carolina, 88°, and South Carolina, 89° on the 28th. The February high temperature for Illinois, 83°, was equaled at two stations on the 13th, and the high for Florida, 94°, was equaled on the 24th.

CONDENSED CLIMATOLOGICAL SUMMARY

FEBRUARY 1962

Section	Temperature						Precipitation			
	Monthly extremes						Monthly extremes			
	Station	Highest	Date	Station	Lowest	Date	Station	Greatest	Station	Least
		°F			°F			In.		In.
Alabama	5 Stations	87	28+	3 Stations	13	7	Lockhart	12.88	Coden	1.28
Arizona	2 Stations	90	10	Fort Valley	-26	28	Tonto Cr Fish Hatch	5.75	2 Stations	.00
Arkansas	do	89	13+	Eureka Springs	0	28	Burdette	10.85	Lead Hill	.72
California	do	86	2	Boca	-37	27	Strawberry Valley	32.44	Iron Mountain	.05
Colorado	Holly	84	12	2 Stations	-49	28	Wolf Creek Pass 1E	8.24	Eads	.00
Connecticut	Coventry	57	6	Falls Village	-16	11	Groton	6.10	Manchester	2.97
Delaware	Lewes 1SW	71	5	Middletown 2S	-10	11	Selbyville	4.31	Wilmington Ncastle WB AP	3.26
Florida	Avon Park	94	24	2 Stations	26	7	Milton Exp Station	4.33	South Miami 5W	.03
Georgia	2 Stations	88	27+	Blairsville Exp Station	8	7	Flat Top	11.48	Brunswick	.98
Idaho	do	64	3+	Obsidian 3SSE	-45	27	Island Park Dam	5.82	Grand View	.26
Illinois	do	83	13	Kewanee	-12	28	Glendale Exp Station	7.57	Princeville 2NW	.67
Indiana	Evansville	81	13	3 Stations	-5	2	Madison Sewage Plant	8.54	Winchester Airport	.87
Iowa	Keokuk L & D 19	63	4	Sibley	-36	28	Sibley	4.13	Fort Madison	D .98
Kansas	3 Stations	89	13+	2 Stations	-19	28	Bonner Springs	2.14	3 Stations	T
Kentucky	6 Stations	82	14+	Blaine 1W	-3	1	Franklin 1E	10.92	Jeremiah	4.16
Louisiana	Donaldsonville	87	27	Antioch Fire Danger Tower	19	7	Koran	4.72	Rayne 6N	.20
Maine	Bar Harbor	52	6	Jackman	-44	2	Sanford 2NNW	3.56	St. Francis	.74
Maryland	Crisfield Hammock Pt	72	5	Oakland 1SE	-13	11	Waldorf Police Brks	D 6.17	Crisfield Hammock Pt	3.08
Massachusetts	Framingham	62	6	West Cummington	-24	11	Sterling	5.88	Hubbardston	2.06
Michigan	3 Stations	56	5+	2 Stations	-37	8	Whitefish Point	3.79	Gull Lake Exp Farm	.43
Minnesota	Canby	56	3	Bigfork	-44	28	Worthington	2.98	Baudette	.55
Mississippi	10 Stations	85	27+	Winona 4ENE	16	6	Corinth	8.96	Centreville 4ESE	.85
Missouri	Berryman 6NW	90	13	Tarkio	-15	28	Kennett Radio KBOA	9.61	Kahoka	.91
Montana	Mosby 18N	71	3	Thoeny 3N	-52	28	Hebgen Dam	4.25	Biddle	T
Nebraska	Beaver City	82	11	Creighton	-36	28	Elgin 9WSW Arden	3.16	Haigler	T
Nevada	Sunrise Manor L Veg	77	5	Geyser Ranch	-24	28	Mt Rose Highway Sta	12.80	Indian Springs	.15
New Hampshire	2 Stations	55	6	Colebrook	-42	2	Gilmanton	5.48	Dublin	1.39
New Jersey	Belleplain Sta Forest	67	5	2 Stations	-15	11	Flemington 1NE	5.21	Belvidere	1.70
New Mexico	2 Stations	88	12	Gavilan	-33	28	Bateman Ranch	3.80	4 Stations	.00
New York	Middleburg 4SW	60	6	Paul Smiths	-36	2	Bakers Mills	8.20	Wilson 2NE	.99
North Carolina	New Bern FAA AP	88	28	Pisgah Forest 1N	0	1	Little Santeetlah Crk	11.10	Morehead City	1.58
North Dakota	Medora 3NNE	66	3	Medora 3NNE	-47	28	Hankinson RR Station	1.75	Medora 3NNE	.05
Ohio	2 Stations	73	4	Barnesville Water Works	-13	11	Portsmouth	6.75	Findlay FAA AP	1.13
Oklahoma	Freedom	94	12	Hooker	-5	28	Idabel	5.32	Cheyenne	.00
Oregon	2 Stations	72	2+	Ukiah	-28	26	Illahe	14.62	Enterprise 16NNE	.42
Pennsylvania	do	66	26+	Coudersport 3NW	-18	11	Everett	5.31	Bradford 4W Res	1.78
Puerto Rico	Dos Bocas	94	7	Cayey 1NW	49	16	Guineo Reservoir	4.83	Sabater	.18
Rhode Island	Greenville	59	5	Greenville	-8	11	Block Island WBAP	6.44	2 Stations	3.84
South Carolina	Ridgeland 2SE	89	28	Caesars Head	8	7	Sassafras Mountain	6.42	Sullivans Island	.68
South Dakota	Interior 3NE	75	10	2 Stations	-40	28	Centerville	4.40	Ralph 1N	.12
Tennessee	Centerville Substa	85	13	do	3	7	Haw Knob	12.53	Hartford	3.89
Texas	McAllen	99	9	Follett	-3	28	Pittsburg 5S	6.39	Numerous Stations	.00
Utah	Moab 4NW	75	11	Scofield Dam	-35	28	Alta	11.11	Hite	.28
Vermont	Rutland	61	5	Bloomfield	-48	2	Wardsboro	5.90	Enosburg Falls	1.00
Virginia	3 Stations	78	28+	Big Meadows	-6	7	Bristol TVA	8.27	Cootes Store	2.11
Washington	2 Stations	71	2	Anatone	-20	26	Naselle	9.19	Wilbur	.48
West Virginia	Creston 1SSW	74	23	Hopemont	-16	11	Branchland	8.31	Harpers Ferry	2.45
Wisconsin	Lake Geneva	53	4	Gordon 2ESE	-37	8+	Marinette	3.05	Oconomowoc 1SW	.75
Wyoming	2 Stations	79	11	Lake Yellowstone	-43	27	Lake Yellowstone	4.01	Shoshoni	.00

D Water equivalent of snowfall wholly or partly estimated, using a ratio of 1 inch water equivalent to every 10 inches of snowfall.

+ And also on an earlier date or dates.

NOTE: Dates in the above Condensed Climatological Summary apply to the period 24 hours prior to time of observation. In some cases the actual occurrence is on the calendar date preceding that shown. (See individual Climatological Data for times of observations).

CLIMATOLOGICAL DATA

ENGLISH UNITS

FEBRUARY 1962

State and Station	Elevation (ground)	Pressure		Temperature											Average relative humidity	Precipitation							Wind					No. of days (sunrise to sunset)			Sky cover, tenths (sunrise to sunset)	Possible sunshine
												No of days							No. of days		Snow, Sleet				Fastest mile							
		Station Ø	Sea level	Average maximum	Average minimum	Average	Departure from normal	Highest	Date	Lowest	Date	Max. 90 F. or above	Min. 32 F. or below	Average dew point		Total	Departure from normal	Greatest in 24 hours	01 inch or more	With thunderstorms	Total	Maximum depth on ground	Average speed	Prevailing direction	Speed	Direction	Date	Clear, 0-3	Partly cloudy, 4-7	Cloudy, 8-10		
	Ft.	Mb.	Mb.	F.	F.	F.	F.	F.		F.				F	%	In.	In	In			In	In	M.p.h.		M.p.h							%
ALABAMA																																
BIRMINGHAM	610	992.0	1017.6	68	43	55.2	7.5	83	13	21	7	0	3	43	68	4.39	-0.89	2.60	8	3	0.0	0	10.8	SSE	38	W	23	10	3	15	5.9	58
HUNTSVILLE	605	993.6	1017.3	63	39	51.3	6.2	82	13	19	7	0	7	40	71	8.38	3.16	2.63	13	7	0.0	0	9.4	SE	35*	SSW	23	9	2	17	6.3	
MOBILE	211	1015.6	1018.0	72	52	61.7	7.0	84	13	28	7	0	2	53	79	6.57	1.98	3.13	13	6	0.0	0	12.0	S	32*	N	5	6	5	17	6.8	
MONTGOMERY	195	1009.5	1017.9	71	47	59.0	8.7	85	13	27	7	0	3	48	69	2.51	-1.85	0.98	9	7	0.0	0	8.6	S	34	SW	22	11	3	14	5.4	52
ALASKA												B																				
ANCHORAGE	90	1013.5	1018.7	26	13	19.5	1.5	40	20+	-10	3+	0	28	14	80	0.74	0.03	0.56	4	0	1.4	8	2.6	N	20*	SSE	20+	5	4	19	7.7	37
ANNETTE	110	1011.9	1016.1	43	30	36.3	1.2	50	7	25	17+	0	21	23	62	0.73	-7.81	0.40	4	0	T	T	8.4	NNW	23*	ESE	7+	5	10	13	6.2	
BARROW	22	1020.0	1020.6	1	-13	- 5.9	12.4	31	25	-33	16	0	28	-14	69	0.66	0.49	0.15	13	0	8.3	29	13.4	E	37*	W	26	3	8	17	7.6	
BARTER ISLAND	39	1019.6	1021.8	3	-13	- 4.9	14.7	34	25	-33	15	0	28	-11	71	0.73	0.38	0.20	13	0	8.4	26	16.2	E	62*	W	26	4	4	20	7.7	
BETHEL	125	1012.9	1014.3	27	12	19.2	11.0	37	27+	-26	2	0	28	15	84	0.49	-0.63	0.19	12	0	3.9	12	11.7	NE	52*	S	19	1	6	21	8.5	
COLD BAY	94	1006.4	1010.4	37	30	33.2	4.5	44	27	9	1	0	17	31	89	1.53	-1.64	0.52	16	0	3.6	2	19.9	SSE	58*	SE	3+	1	5	22	8.6	
CORDOVA	40	1015.6	1017.4	36	18	26.9	0.7	45	28+	- 3	3	0	27	22	84	2.72	-1.92	1.71	9	0	11.8	10	3.4	N	16*	ESE	20	6	6	16	7.1	
FAIRBANKS	436	1002.4	1020.7	16	- 2	7.1	10.0	36	24	-37	3	0	28	3	79	1.26	0.74	0.38	13	0	26.4	37	3.7	N	25*	SW	21	2	8	18	8.0	
JUNEAU	17	1016.9	1017.8	34	17	25.7	- 1.1	42	28	2	17	0	28	19	80	0.96	-2.10	0.29	8	0	7.7	6	2.9	N	23*	ESE	21	8	5	15	6.5	56
KING SALMON	43	1012.9	1014.8	32	15	23.5	6.1	44	18	-22	2	0	24	19	84	1.04	0.09	0.67	8	0	11.6	7	8.4	E	48*	E	4	7	4	17	6.9	
KOTZEBUE	10	1016.9	1017.4	14	0	7.0	11.0	34	24	-27	2	0	28	0	72	0.38	0.08	0.13	11	0	8.3	17	15.1	ESE	44*	E	19	4	3	21	8.0	
MC GRATH	334	1006.4	1019.8	19	- 1	9.3	9.2	41	19	-35	2	0	28	4	74	0.35	-0.79	0.12	5	0	6.6	37	2.5	NW	35*	S	19	3	4	21	8.2	
NOME	13	1014.2	1014.9	22	10	16.2	10.7	35	24	-22	2	0	28	13	84	0.51	-0.43	0.17	13	0	5.1	31	15.5	E	37*	ENE	19+	5	0	23	8.2	8
ST. PAUL ISLAND	22	1004.4	1005.2	33	24	28.9	5.6	38	24	7	2+	0	28	28	93	1.22	-0.01	0.24	16	0	4.9	5	16.6	SE	40*	ESE	17+	3	7	18	7.7	
SHEMYA	122	987.8	991.6	35	29	32.0	1.2	39	27+	21	15	0	27	29	87	2.50	0.21	0.50	23	0	18.3	2	20.0	WSW	60*	SW	27	0	3	25	9.1	
YAKUTAT	28	1016.3	1017.5	35	19	27.2	- 1.4	43	28+	6	17+	0	26	24	90	2.42	-5.78	1.16	11	0	8.8	5	2.2	ENE	20*	W	21	7	6	15	7.0	
ARIZONA																																
FLAGSTAFF	6993	737.0	1017.6	43	18	30.3	- 0.3	59	5+	-16	28	0	28	22	75	4.15	1.37	0.72	12	1	32.4	18	7.7	S	25*	S	25	8	4	16	6.1	
PHOENIX	1109	976.0	1015.5	68	44	55.7	1.2	84	10	30	28	0	1	38	58	0.83	-0.02	0.21	10	1	0.0	0	5.7	E	35*	SW	19	13	6	9	4.8	77
PRESCOTT	5014	845.6	1015.9	54	28	40.9	1.3	70	10	2	28	0	20	28	67	1.36	0.28	0.44	12	0	6.5	3	8.1	S	43	SW	16	8	9	11	5.6	63
TUCSON	2584	925.8	1014.6	67	43	54.7	2.3	83	10	29	28	0	2	33	51	0.33	-0.51	0.15	4	0	T	0	9.0	SE	27	S	19	11	6	11	5.0	79
WINSLOW	4880	850.3	1016.9	47	26	36.5	- 1.5	71	10	8	28	0	19	28	77	0.58	0.10	0.26	3	0	5.6	2	9.9	SW	40*	SW	16	7	7	14	6.4	
YUMA	199	1009.3	1015.2	74	47	60.2	0.1	87	10	31	28	0	1	36	47	0.05	-0.31	0.04	2	0	0.0	0	7.3	N	29	SW	19	12	8	8	4.7	78
ARKANSAS																																
FORT SMITH	449	999.4	1016.7	59	35	47.0	3.3	86	12	17	28	0	8	36	70	3.00	-0.43	1.25	8	5	T	T	8.0	ENE	25	SW	13	11	4	13	5.6	56
LITTLE ROCK	257	1003.8	1015.8	60	39	49.2	4.8	83	12	21	6	0	6	38	70	7.19	2.86	2.98	10	4	T	0	9.5	N	29	NW	28	12	2	14	5.6	52
TEXARKANA	361			64	43	53.7	5.2	81	13+	28	6	0	3	45	77	5.52	1.50	2.15	9	7	T	0	8.5	SW								
CALIFORNIA																																
BAKERSFIELD	494	999.0	1017.5	57	42	49.6	- 2.4	72	9	28	27	0	2	43	83	4.42	3.28	1.17	17	1	0.0	0	6.6	NNW	26*	SSE	9	2	7	19	7.9	
BISHOP	4108	870.6		54	28	40.7	0.0	74	4	12	27	0	23			4.96	3.98	2.09	10	0	0.6	T						10	6	12	5.5	
BLUE CANYON	5280	836.1		39	28	33.5	- 3.1	66	1	7	27+	0	23			23.21	13.02	4.85	19	0	79.2	55	10.0	SSW	53	SSW	9	6	1	21	7.7	
BURBANK	699	990.2	1016.7	61	45	53.4	- 1.8	80	1	33	28	0	0	43	73	13.30	10.08	5.62	13	2	T	0	8.3	SE	24*	ESE	19	7	8	13	6.6	
EUREKA U	43	1011.5		53	42	47.7	- 0.5	59	14+	27	27	0	2			6.08	0.55	1.24	15	0	T	0	8.2	SE#	30	N	25	4	7	17	7.6	49
FRESNO	326	1003.7	1016.1	55	41	48.3	- 1.5	64	9	26	27	0	4	42	84	5.97	3.78	1.56	15	0	0.0	0	5.7	SE	24	E	9	3	9	16	7.4	41
LONG BEACH	34	1015.6	1017.2	59	46	52.7	- 1.2	69	1	37	28+	0	0	46	80	7.88	5.57	2.50	13	3	0.0	0	7.7	ESE	23*	W	26+	7	6	15	6.9	
LOS ANGELES	97	1013.2	1017.2	59	48	53.8	- 0.4	73	1	37	28	0	0	48	82	11.07	8.19	4.16	12	1	0.0	0	8.1	W	26*	W	16	6	7	15	6.6	
LOS ANGELES U	312			60	48	53.8	- 3.3	78	1	39	28	0	0	45	76	11.57	8.24	3.02	12	3	0.0	0	7.1	SE#	27	SE	19+	6	8	14	6.5	51
MT. SHASTA F	3544	888.6		44	28	36.2	- 0.8	65	4+	3	27	0	20			14.38	8.47	3.37	16	2	33.5	9						6	5	17	7.2	
OAKLAND	3	1014.7	1015.3	57	44	50.4	- 0.3	64	2	31	27	0	1	41	74	7.30	4.07	1.47	17	1	0.0	0	8.8	SE	29*	NW	25+	6	6	16	6.7	
POINT ARGUELLO	367	1002.7		55	43	49.0	- 2.0	63	14	28	28	0	2			8.36	6.14	1.87	14	0	0.0	0	8.4		41*	S	9	4	9	15	7.1	
RED BLUFF	341	1001.4	1014.5	56	39	47.3	- 2.4	70	3	26	27	0	6	37	76	6.96	3.65	2.12	13	3	1.5	2	12.1	SSE	47	SE	9	5	5	18	7.1	44
SACRAMENTO	17	1014.6	1015.7	54	41	47.6	- 2.6	62	7	28	27	0	2	42	85	8.77	5.78	2.30	14	1	0.0	0	9.1	SSE	34	SE	9	4	5	19	7.6	40
SACRAMENTO U	25			55	42	48.4	- 2.6	61	15+	30	27+	0	2			7.60	4.13	2.23	15		0.0	0										
SANDBERG F	4517	860.1		43	34	38.7	- 2.7	65	3	13	27	0	14			10.67	8.09	4.87	15	0	11.9	9	15.2	S	45*	S	9	5	6	17	7.0	
SAN DIEGO	13	1013.9	1017.1	63	50	56.5	- 0.2	67	2+	43	28	0	0	47	73	3.08	0.43	1.04	12	1	0.0	0	7.4	WNW	28	S	11	8	8	12	6.2	51
SAN FRANCISCO	8	1014.9	1015.7	56	44	50.1	- 0.8	65	1	36	27+	0	0	43	80	8.48	5.00	2.15	16	1	0.0	0	9.0	WNW	50	SSW	9	7	5	16	6.7	
SAN FRANCISCO U	52			56	47	51.8	- 1.2	64	1	37	26	0	0			6.58	2.92	1.92	15	1	0.0	0	8.8	W#	38	SW	9					56
SANTA MARIA	238	1008.1	1017.2	58	42	50.3	- 1.5	70	1	28	28	0	3	45	85	9.69	7.19	2.26	15	0	T	T	4.6	WNW	17*	SW	25+	6	11	11	6.2	

See footnotes at end of table

CLIMATOLOGICAL DATA

ENGLISH UNITS

State and Station	Elevation (ground)	Pressure		Temperature											Average relative humidity	Precipitation							Wind					No of days sunrise to sunset				
												No of days							No of days		Snow Sleet				Fastest mile							
		Station O	Sea level	Average maximum	Average minimum	Average	Departure from normal	Highest	Date	Lowest	Date	Max. 90 F. or above	Min. 32 F. or below	Average dew point		Total	Departure from normal	Greatest in 24 hours	.01 inch or more	With thunderstorms	Total	Maximum depth on ground	Average speed	Prevailing direction	Speed	Direction	Date	Clear, 0-3	Partly cloudy, 4-7	Cloudy, 8-10	Sky cover, tenths (sunrise to sunset)	Possible sunshine
	Ft	Mb.	Mb	F	F	F.	F.	F		F.				F	%	In.	In.	In			In	In	M.p.h.		M.p h							%
COLORADO																																
ALAMOSA	7536	766.7		46	15	30.2	6.7	62	11	- 6	28	0	28			0.21	0.04	0.08	5	0	4.7	2						11	11	6	4.6	
COLORADO SPRINGS	6173	806.3	1016.3	45	18	31.8	0.8	71	11	-16	28	0	24	16	61	0.34	0.01	0.12	6	0	3.7	3	8.4	NNE	23*	SW	12+	7	12	9	5.4	
DENVER	5283	833.1	1015.3	41	18	29.9	- 2.6	72	11	-18	28	0	22	16	62	1.05	0.36	0.72	8	0	11.3	7	8.1	SSW	30	W	8+	7	11	10	6.1	66
GRAND JUNCTION	4849	856.8	1015.1	47	29	37.9	5.3	67	11	7	28	0	19	27	68	1.09	0.40	0.26	12	0	6.1	1	6.4	ESE	34	NW	12	7	4	17	7.1	47
PUEBLO	4639	852.4	1014.2	51	20	35.6	1.7	77	11	-19	28	0	25	18	57	0.64	0.16	0.41	5	0	8.1	4	8.6	WNW	36	SW	8	10	10	8	5.1	70
CONNECTICUT																																
BRIDGEPORT	7	1019.0	1019.9	35	22	28.0	- 2.5	48	5	- 2	11	0	24	21	68	4.04	1.08	1.42	16	0	17.2	11	12.7	ENE	31*	E	19	6	4	18	7.3	
HARTFORD	169	1012.8	1019.1	32	14	23.4	- 4.4	48	5	- 8	11	0	27	18	61	4.04	1.10	1.11	16	1	22.9	10	8.2	N	25	W	20+	5	5	18	7.2	42
NEW HAVEN	6	1019.1		35	21	27.5	- 2.1	48	5	- 1	11	0	25			4.71	1.52	1.27	16	0	20.3	10	8.0		23	N	20+	6	3	19	7.3	44
DELAWARE																																
WILMINGTON	78	1015.8	1019.1	39	24	31.3	- 2.5	61	5	- 1	11	0	22	24	73	3.26	0.31	0.92	14	0	8.0	4	10.2	NW	32*	NW	24	5	7	16	7.2	
DIST.OF COLUMBIA																																
WASHINGTON U	72			43	30	36.6	- 0.9	69	5	13	11+	0	16			3.59	0.95	1.05	16													
WASH NATL AP	14	1014.9	1019.4	41	28	34.6	- 3.2	64	5	11	11	0	21	24	63	3.65	1.18	1.06	17	0	6.5	2	7.9	N	33	SSW	5	4	7	17	7.4	40
FLORIDA																																
APALACHICOLA U	13	1016.4		69	55	61.8	5.0	76	26+	34	7	0	0			1.56	-2.35	0.72	7	1	0.0	0	8.2		30	N	6	13	4	11	5.3	73
DAYTONA BEACH	31	1017.3	1019.1	77	53	64.8	4.2	88	24	38	12+	0	0	55	75	0.82	-1.93	0.81	3	1	0.0	0	8.8	WSW	25*	W	6	7	12	9	5.5	
FORT MYERS	13	1017.9		82	57	69.6	4.4	92	25	44	12	1	0			0.54	-1.67	0.54	2	1	0.0	0	8.4		23*	NNE	10+	11	12	5	4.4	
JACKSONVILLE	24	1017.8	1019.1	76	51	63.2	5.7	88	26+	31	7	0	1	52	74	0.52	-2.39	0.30	6	1	0.0	0	9.1	SW	26	SW	9	6	12	10	6.0	53
KEY WEST	5	1017.5	1018.8	79	69	73.7	3.3	84	24	58	11+	0	0	65	76	0.49	-1.49	0.24	3	1	0.0	0	9.9	SE	29	NW	10	15	9	4	3.6	87
LAKELAND U	214			79	57	68.1	5.0	88	25+	41	7	0	0			1.17	-1.34	0.69	4	3	0.0	0	7.3					6	16	6	5.3	72
MIAMI BEACH	9			79	66	72.5	2.9	84	9	52	11	0	0			0.06	-1.59	0.05	2		0.0	0	7.6		29	NW	10	14	11	3	3.9	76
MIAMI	7	1016.9	1018.2	81	62	71.4	3.5	88	9	48	11	0	0	61	74	0.13	-1.74	0.07	3	1	0.0	0	9.2	SE	25*	NNE	11	10	14	4	4.5	
ORLANDO	106	1014.3	1019.0	81	56	68.4	7.0	90	25+	41	7	2	0	56	70	2.08	-0.34	2.03	3	2	0.0	0	9.0	S	29*	SW	10	8	15	5	5.0	
PENSACOLA U	13			68	54	60.9	5.0	77	27	34	7	0	0			2.49	-1.78	0.89	12	2	0.0	0	7.4		22	N	6					64
TALLAHASSEE	58	1016.0	1018.8	74	50	62.2	6.6	85	14	32	7	0	1	55	82	2.43	-1.75	0.79	8	4	0.0	0	9.7	S	29*	S	23+	8	3	12	5.8	
TAMPA	19	1017.6	1019.2	77	57	66.8	4.1	87	25	42	12	0	0	57	76	1.46	-1.38	0.81	3	1	0.0	0	10.1	SSE	25*	NNW	10	10	13	5	4.9	79
WEST PALM BEACH	15	1017.5	1018.7	81	60	70.4	2.8	85	24+	47	12	0	0	61	75	1.19	-1.16	1.05	2	2	0.0	0	9.3	SSE	27*	NW	10	10	13	5	4.4	
GEORGIA																																
ATHENS	803	988.4	1018.2	62	38	49.9	3.8	79	27	19	7	0	4	39	72	5.38	0.68	2.70	11	4	0.0	0	9.2	S	22*	S	24+	8	8	12	5.9	
ATLANTA	975	975.8	1018.4	62	38	50.1	3.6	79	27	18	7	0	5	39	71	5.09	0.58	2.75	11	5	0.0	0	10.0	NW	23*	NW	6	12	4	12	5.3	60
AUGUSTA	143	1011.0	1018.0	67	41	53.8	4.5	86	28	20	7	0	5	43	71	6.04	2.52	3.59	9	3	0.0	0	6.8	NW	25*	NW	28	9	7	12	6.1	
COLUMBUS	385	1003.7		70	44	56.9	7.2	83	13	23	7	0	6			4.74	0.11	2.53	13	5	0.0	0	9.9		30*	SW	9	11	4	13	5.5	
MACON	356	1004.0	1017.9	70	44	57.1	6.0	85	28	23	7	0	4	43	65	3.32	-0.94	1.34	8	6	0.0	0	10.1	NNW	38	E	19	10	4	14	5.8	66
ROME	637	994.2		63	36	49.6	5.2	80	27	18	7	0	9			4.11	-1.19	2.05	13	4	0.0	0						10	5	13	5.4	
SAVANNAH	48	1016.2	1019.1	70	46	57.8	4.7	86	28	27	7	0	3	50	79	1.73	-1.95	0.90	6	3	0.0	0	9.0	SW	26	SW	9	6	7	15	6.4	62
THOMASVILLE U	283			74	51	62.4	7.1	84	27	28	7	0	1			3.95	-0.04	1.33	8	3	0.0	0						11	4	13	5.5	
HAWAII																																
HILO	31	1013.9	1016.0	80	62	70.7	0.1	86	4	53	21	0	0	60	72	5.31	-7.63	1.91	12	1	0.0	0	8.7	WSW	25*	SSE	20	6	13	9	5.6	56
HONOLULU	7	1015.6	1016.0	80	65	72.3	- 0.1	85	7	55	21	0	0	61	70	2.62	-0.68	1.52	13	2	0.0	0	10.1	NE	33	NW	20	10	12	6	5.1	63
LIHUE	115	1010.5	1016.3	79	62	70.4	- 0.3	85	3	52	22	0	0	60	71	2.25	-3.07	0.64	12	1	0.0	0	10.1	NNE	24	NE	26+	5	12	11	6.4	57
IDAHO																																
BOISE	2838	917.7	1016.2	38	26	32.2	- 1.8	53	12	5	27	0	19	25	77	0.77	-0.56	0.23	14	0	1.6	5	7.8	WNW	27	SE	9	2	5	21	8.4	33
IDAHO FALLS 42NW R	4790			30	13	21.8	2.9	40	20+	-16	27	0	26			1.83	1.34	0.62	12													
IDAHO FALLS 46W R	4933	844.9		32	11	21.6	1.2	46	11	-21	27	0	28			2.40	1.63	0.96	10	0	6.0	8	6.7	WSW	33A	SW	22					
LEWISTON	1413	962.4		45	30	37.5	1.6	59	2	5	26	0	15			0.76	-0.21	0.18	8	0	0.3	T						2	6	20	8.4	
POCATELLO	4444	859.8	1016.8	38	21	29.0	1.8	55	11	- 4	27	0	22	22	80	1.18	0.26	0.36	11	0	3.6	3	10.6	SW	40	S	14	1	7	20	8.3	48
ILLINOIS																																
CAIRO U	314	1004.0		51	34	42.3	1.6	76	13	17	7	0	9			7.38	3.71	2.20	9	5	0.6	1	10.2	SW#	32	SW	13	6	9	13	6.5	52
CHICAGO O HARE	658	992.2	1016.0	31	18	24.4		50	4	- 5	6	0	28	19	80	1.18		0.28	13	0	10.0	8	12.9	N	32*	W	13	1	6	21	8.4	
CHICAGO MIDWAY	610	994.2	1018.1	32	19	25.8	- 2.1	50	4	- 4	6	0	27	19	75	1.81	0.21	0.50	18	0	13.3	7	12.5	E	41	W	13	1	7	20	8.4	21
MOLINE	582	995.5	1018.8	31	16	23.7	- 2.5	52	4	- 9	28	0	25	16	72	1.84	0.49	0.77	13	0	15.8	9	10.4	WNW	33	NW	13	3	5	20	8.0	33

See footnotes at end of table

CLIMATOLOGICAL DATA

ENGLISH UNITS

State and Station	Elevation (ground)	Pressure		Temperature								No. of days				Precipitation			No. of days		Snow, Sleet		Wind		Fastest mile			No of days (sunrise to sunset)				
		Station Ø	Sea level	Average maximum	Average minimum	Average	Departure from normal	Highest	Date	Lowest	Date	Max. 90 F or above	Min. 32 F. or below	Average dew point	Average relative humidity	Total	Departure from normal	Greatest in 24 hours	01 inch or more	With thunderstorms	Total	Maximum depth on ground	Average speed	Prevailing direction	Speed	Direction	Date	Clear 0-3	Partly cloudy, 4-7	Cloudy, 8-10	Sky cover, tenths (sunrise to sunset)	Possible sunshine
	Ft.	Mb.	Mb.	F	F.	F.	F.	F		F				F	%	In	In.	In			In.	In.	M.p.h.		M.p.h							%
ILLINOIS																																
PEORIA	652	995.5	1018.8	33	19	25.9	-2.5	53	4	-3	6	0	27	20	78	1.23	-0.48	0.36	14	0	7.5	4	12.4	NW	34	W	13	6	1	21	7.8	31
ROCKFORD	728	989.7	1016.3	29	14	21.4	-3.0	49	4	-7	28+	0	28	17	82	1.49	0.05	0.58	12	0	15.1	10	11.3	WNW	28*	E	18	4	5	19	7.8	
SPRINGFIELD	588	993.9	1016.5	38	23	30.4	-0.7	66	13	3	6	0	25	24	77	1.48	-0.34	0.49	12	2	9.6	4	13.1	NW	43	W	13	5	6	17	7.3	45
INDIANA																																
EVANSVILLE	381	1001.2	1015.8	49	30	39.6	3.0	79	13	9	7	0	15	32	76	6.58	3.40	2.23	12	2	2.0	2	9.8	NW	29	NW	13	5	9	14	7.0	46
FORT WAYNE	791	985.8	1018.3	34	18	26.1	-1.7	56	4	-1	2	0	27	21	80	2.34	0.10	0.60	13	2	12.3	6	12.5	ENE	42	W	13	3	5	20	8.0	41
INDIANAPOLIS	793	986.8	1015.7	39	22	30.7	-0.4	67	4	3	7	0	28	24	78	2.27	-0.01	0.80	10	1	14.0	6	9.6	NW	28*	NW	13	3	4	21	8.2	28
SOUTH BEND	768	988.6	1017.9	32	16	24.1	-2.7	51	4	-2	7	0	28	19	80	1.74	-0.14	0.43	14	0	17.4	8	13.0	E	33*	NW	13	3	4	21	8.1	
IOWA																																
BURLINGTON	694	991.4	1018.8	33	18	25.6	-2.2	58	4	-7	28	0	27	20	78	1.84	0.45	0.63	16	0	17.3	12	12.9	NW	40	NW	4	5	3	20	7.7	42
DES MOINES	948	986.6	1019.7	27	14	20.5	-4.4	45	4	-16	28	0	28	18	87	1.60	0.50	0.51	14	2	21.3	15	9.4	NW	35	NW	4	6	3	19	7.7	30
DUBUQUE	1065	991.7		26	11	18.3	-3.7	44	4	-11	6	0	28			2.39	0.99	1.25	12	0	24.0	22						4	5	19	7.9	
SIOUX CITY	1095	975.9	1019.3	28	12	20.0	-2.7	54	4+	-26	28	0	27	16	84	2.38	1.49	0.87	14	2	21.3	18	11.3	NNW	45	N	4	6	3	19	7.2	43
WATERLOO	868	985.6	1018.2	24	10	16.8	-5.1	42	4	-29	28	0	28	15	87	1.74	0.82	0.63	13	1	24.3	18	11.1	NW	41*	NW	4	5	5	18	7.5	
KANSAS																																
CONCORDIA U	1375	965.2		41	23	32.0	-0.1	73	11	-4	28	0	22	23	72	1.10	0.19	0.53	7	2	4.4	3	8.2	N#	26	NW	18	9	8	11	5.5	60
DODGE CITY	2594	928.3	1015.6	50	24	37.1	2.1	82	12+	-7	28	0	17	23	64	0.32	-0.38	0.29	3	0	T	T	11.0	SSE	40	S	20	13	8	7	4.6	69
GOODLAND	3645	885.0	1012.6	48	18	33.0	2.1	78	12+	-14	28	0	25	18	63	0.17	-0.34	0.11	3	1	3.7	2	12.4	WSW	35*	NNE	4	8	10	10	5.7	
TOPEKA	877	988.1	1017.9	43	23	32.8	-0.3	74	3	-4	28	0	23	26	78	1.28	0.23	0.42	8	2	2.4	1	12.8	N	40	E	17	6	4	18	7.2	47
WICHITA	1321	966.2	1016.3	47	27	37.1	0.8	81	12	3	28	0	19	28	74	0.47	-0.45	0.41	5	1	T	T	12.1	N	43	S	17	7	10	11	6.0	54
KENTUCKY																																
COVINGTON	869	984.9	1017.9	43	26	34.9	0.8	69	4	2	7	0	21	26	73	5.58	2.67	1.73	14	2	9.0	4	10.2	E	38*	NW	13	3	3	22	8.3	
LEXINGTON	979	980.7	1017.6	49	29	38.8	3.0	71	13	3	7	0	16	31	78	7.24	3.82	3.09	11	2	0.8	T	12.3	SSW	46*	NW	23	6	5	17	7.4	
LOUISVILLE	474	997.8	1017.5	49	29	39.1	3.3	77	13	6	7	0	16	31	75	6.58	3.29	2.29	11	3	2.5	1	9.7	ENE	32	NW	13	3	9	16	7.6	28
LOUISIANA																																
ALEXANDRIA	92	1011.8	1016.6	71	47	58.8		82	27+	28	7	0	1	50	77	2.27		0.80	8	4	0.0	0	7.8	SSW				7	3	18	6.9	
BATON ROUGE	64	1013.8	1017.0	74	51	62.6	7.7	85	27	31	7	0	1	53	76	0.70	-3.72	0.23	6	6	0.0	0	10.5	S				7	4	17	6.8	
BURWOOD R	5		1017.9	69	55	62.0	3.8	78	28	43	7	0	0	59	90	0.41	-3.90	0.25	5	2	0.0	0	11.1	S								
LAKE CHARLES	14	1014.1	1016.1	71	52	61.1	5.3	79	26	33	7	0	0	55	84	0.80	-3.71	0.59	7	3	0.0	0	16.7	S	37*	SSW	8	7	5	16	6.6	
NEW ORLEANS	3	1014.9	1017.2	74	54	63.9	7.8	83	27+	36	7	0	0	57	81	1.02	-2.97	0.47	7	1	0.0	0	9.8	SSE	32*	SSW	23	6	8	14	6.5	
NEW ORLEANS AUDUBON	10	1012.0		73	55	64.1		83	27	37	7	0	0			2.92		1.68	8	4	0.0	0										
SHREVEPORT	252	1006.9	1016.4	68	46	57.2	6.9	82	13+	30	7+	0	3	48	75	2.12	-1.97	0.60	9	4	0.0	0	10.6	S				8	7	13	5.8	52
MAINE																																
CARIBOU	624	995.6	1020.5	19	-4	7.4	-5.1	38	5	-32	2	0	28	10	68	1.16	-0.86	0.33	13	0	16.3	10	11.0	NW	28*	NW	12+	7	8	13	6.1	
PORTLAND	61	1016.0	1020.2	28	8	18.1	-4.7	42	5	-12	2	0	28	15	55	2.25	-1.55	0.76	13	0	32.3	18	9.5	N	33	NE	14	8	4	16	6.6	45
MARYLAND																																
BALTIMORE	146	1014.2	1019.3	40	24	32.3	-3.4	67	5	5	11	0	23	24	67	4.41	1.52	1.36	18	2	9.2	5	9.2	WNW	32	NW	24+	6	5	17	7.3	38
BALTIMORE U	14			40	27	33.4	-4.4	62	5	9	11	0	21			4.73	1.75	1.36	18													
FREDERICK	294			38	22	30.1	-3.6	63	5	-5	10	0	26			3.57	1.02	1.08	15		9.0	3										
MASSACHUSETTS																																
BLUE HILL OBS R	629	993.3	1017.7	32	16	24.2	-3.2	59	5	-6	11	0	27		72	4.92	1.19	1.24	13		30.1	18	14.8	WNW	45	NE	15					46
BOSTON	15	1013.8	1018.9	35	19	26.7	-3.6	61	5	-1	11	0	26	19	62	4.16	0.84	1.10	14	1	28.7	11	14.2	N	40	ENE	14	9	2	17	6.6	55
NANTUCKET	43	1017.4	1018.0	37	25	31.0	-0.4	48	5	14	7	0	24	24	77	5.14	1.38	1.45	18	0	13.1	2	15.0	N	41	E	14	5	4	19	7.7	33
PITTSFIELD	1170			29	9	18.9	-3.4	53	5	-18	11	0	28			2.53	0.02	0.77	19		29.9	18										
WORCESTER	986	980.0	1018.4	30	14	22.1	-2.8	56	5	-10	11	0	27	16	63	4.82	1.90	1.00	14	0	45.2	31	10.2	NE	31*	W	17+	6	5	17	6.9	
MICHIGAN																																
ALPENA	689	992.3		23	1	12.0	-8.1	37	5	-24	10+	0	28			2.79	1.18	0.99	15	0	30.1	28	7.8	SE#	27	SE	13+	4	6	18	7.8	42
DETROIT	619	990.9	1018.8	30	17	23.5	-3.7	51	5+	-2	2	0	28	17	77	2.55	0.47	0.68	17	1	15.7	8	11.4	N	41	NW	14	2	6	20	8.1	28
DETROIT M WAYNE CO	633	993.4	1016.3	30	15	22.3	-4.3	50	4	-4	2	0	28	18	82	2.39	0.44	0.66	15	0	17.4	8	10.2	E				2	5	21	8.5	
DETROIT WILLOW RUN	711	988.5	1018.1	31	16	23.3	-4.1	52	4	-3	2	0	28	18	80	2.43	0.48	0.54	14	0	19.0	7	10.1	NNE	31*	NW	14	2	6	20	8.2	
ESCANABA U	594	995.8		23	6	14.7	-4.0	38	3	-16	7	0	28	7	71	2.47	1.26	1.00	16	0	31.7	37	9.9		36	N	5	4	7	17	7.5	46

See footnotes at end of table

CLIMATOLOGICAL DATA

ENGLISH UNITS

State and Station	Elevation (ground)	Pressure		Temperature											Average relative humidity	Precipitation							Wind					No. of days sunrise to sunset			Sky cover tenths, sunrise to sunset	Pct. possible sunshine
		Station	Sea level	Average maximum	Average minimum	Average	Departure from normal	Highest	Date	Lowest	Date	No. of days: Max. 90 F. or above	No. of days: Min 32 F or below	Average dew point		Total	Departure from normal	Greatest in 24 hours	No. of days: .01 inch or more	No. of days: With thunderstorms	Snow, Sleet: Total	Snow, Sleet: Maximum depth on ground	Average speed	Prevailing direction	Fastest mile: Speed	Fastest mile: Direction	Fastest mile: Date	Clear 0-3	Partly cloudy 4-7	Cloudy 8-10		
	Ft	Mb	Mb	F	F	F	F	F		F				F	%	In	In	In			In	In	Mph		Mph							
MICHIGAN																																
FLINT	766	989.8	1019.0	28	12	20.1	- 3.6	48	4	- 8	2	0	28	16	80	1.21	-0.55	0.39	12	0	16.1	11	10.3	E	27*	W	5	2	8	18	8.1	
GRAND RAPIDS	681	992.2	1018.7	29	15	21.6	- 2.9	53	4	- 3	2	0	28	16	79	1.68	-0.07	0.29	17	0	21.4	10	11.1	ESE	34	W	5	2	9	17	7.8	27
LANSING	852	984.7	1018.4	28	13	20.6	- 3.6	50	4	- 6	2	0	28	15	76	1.60	-0.35	0.38	13	0	16.9	12	14.1	WNW	56	W	14	5	6	17	7.3	40
MARQUETTE U	677	991.3		21	8	14.6	- 5.1	38	3	-10	7	0	28			2.47	0.82	0.73	18	0	35.9	41	7.6	NW#	26	NW	5	1	4	23	8.8	33
MUSKEGON	627	994.3	1018.6	27	15	20.9	- 3.8	49	4	- 6	2+	0	28	16	80	1.90	0.10	0.39	16	0	40.2	15	11.2	E	30*	E	18	1	7	20	8.3	
SAULT STE MARIE	721	995.9	1020.0	18	- 1	8.4	- 6.8	33	3	-23	1	0	28	3	77	2.14	0.64	0.60	14	0	25.8	35	9.2	E	23*	NW	28+	5	3	20	7.5	45
MINNESOTA																																
DULUTH	1426	76.5	1020.4	15	0	7.5	- 3.8	37	3	-26	28	0	28	2	74	1.82	0.86	0.57	14	0	18.3	24	11.9	E	32	NE	18	4	6	18	7.7	41
INTERNATIONAL FALLS	1179	977.6	1022.0	15	- 8	3.4	- 3.7	35	2	-37	28	0	28	5	68	1.27	0.56	0.46	9	0	13.7	23	7.1	W	25*	NNE	4	7	6	15	6.6	
MINNEAPOLIS	822	984.8	1020.5	20	4	11.7	- 4.2	40	4	-26	28	0	28	6	75	2.07	1.29	0.47	14	0	26.5	26	11.6	NW	32*	NW	4	3	8	17	7.5	42
ROCHESTER	1297	968.8	1019.3	20	6	13.3	- 3.9	40	4+	-25	28	0	28	10	83	1.35	0.55	0.38	11	0	19.1	13	9.7	NW				4	6	18	7.5	
ST CLOUD	1034	980.4	1018.6	20	1	10.7	- 2.7	41	4	-29	28	0	28		75	1.40	0.60	0.47	11	0	20.3	21						6	6	16	7.4	
MISSISSIPPI																																
JACKSON	305	1004.7	1017.0	69	45	57.2	6.5	84	27	26	7	0	3	47	72	2.75	-2.13	1.65	9	8	0.0	0	7.7	S	29	SW	23	9	4	15	6.3	51
MERIDIAN	292	1003.6	1017.7	70	43	56.7	6.1	84	13	22	7	0	4	49	78	2.02	-3.07	1.37	8	5	0.0	0	8.8	S	25*	S	23	10	4	14	6.1	
VICKSBURG U	243	1007.3		68	48	57.7	5.9	81	27	27	7	0	3			3.33	-1.98	1.20	9	6	0.0	0	9.8		34	SW	23	8	4	16	6.5	47
MISSOURI																																
COLUMBIA	778	987.0	1016.8	44	26	35.1	1.3	77	4	- 3	28	0	17	27	77	2.00	0.19	0.74	12	3	6.6	4	12.1	NW	32	NW	13	8	2	18	6.7	44
KANSAS CITY	742	981.0	1017.2	43	27	34.9	0.1	70	12	- 2	28	0	16	26	73	2.02	0.78	0.68	8	1	6.2	4	8.9	ENE	33	N	4	6	4	18	7.0	46
ST JOSEPH	809	981.6		37	22	29.4	- 1.7	61	11	- 7	28	0	25			1.63	0.54	0.53	8	3	10.6	7	12.2	NNW	32*	N	4	8	2	18	6.7	
ST LOUIS	535	996.4	1017.7	46	28	36.6	1.4	83	13	8	28	0	18	26	69	2.53	0.49	1.15	11	2	3.6	2	11.3	NW	34	NW	13	4	7	17	7.4	44
ST LOUIS RFC	465			46	30	38.0	1.6	83	13	7	28	0	16			2.64	0.43	1.04	9		2.1	1										
SPRINGFIELD	1265	967.9	1016.6	52	29	40.5	3.4	81	12	1	28	0	15	30	71	1.96	-0.16	0.56	10	3	1.1	1	12.5	SSE	36	SW	13	8	5	15	6.2	50
MONTANA																																
BILLINGS	3567	888.6	1017.0	33	15	23.9	- 1.8	62	3	-17	28	0	19	15	74	1.26	0.66	0.29	15	0	11.7	4	11.1	WSW	32	NE	22	3	7	18	8.0	48
GLASGOW	2277	942.8		21	4	12.8	- 0.8	52	2	-37	28	0	27	8	83	0.45	0.04	0.14	14	0	4.8	3						3	9	16	7.4	
GREAT FALLS	3662	885.9	1017.3	30	12	20.7	- 3.6	61	3+	-22	26	0	22	13	73	0.95	0.21	0.31	13	0	8.9	3	9.9	SW	43	SW	3	2	6	20	8.0	44
HAVRE	2582	926.2		27	6	16.3	0.0	67	2	-30	28	0	27			0.36	-0.07	0.14	7	0	5.3	4	7.5	E#	34	W	22+	6	8	14	6.9	53
HELENA	3893	870.3	1017.6	34	15	24.5	1.3	66	2	-15	26	0	26	14	68	0.51	0.08	0.20	9	0	7.3	4	6.7	WNW	46	W	3	3	7	18	7.8	46
KALISPELL	2965	909.2		34	18	25.7	3.7	56	2	- 9	27+	0	28			0.92	-0.08	0.20	16	0	7.7	6	6.3					1	6	21	8.3	
MILES CITY	2629			30	11	20.7	0.4	65	3	-27	28	0	25	13	75	0.41	0.04	0.15	6	0	4.5	4	9.4	NW	40*	NW	22+	4	7	17	7.5	
MISSOULA	3190	899.4	1017.4	32	18	24.9	- 0.1	49	3	-10	26	0	28	18	76	1.32	0.45	0.39	13	0	10.4	4	6.5	ESE	34	W	3	1	7	20	8.3	43
NEBRASKA																																
GRAND ISLAND	1841	949.0		36	15	25.6	- 2.0	76	11	-17	28	0	26	18	74	1.64	0.90	0.73	10	0	10.1	8	11.3	NNW				9	3	16	6.5	
LINCOLN U	1150			34	19	26.7	- 2.0	67	3	-12	28	0	25			1.28	0.19	0.59	11	0	4.3	3	9.9	NW#	34	E	17	8	3	17	6.6	46
NORFOLK	1544	959.9		30	12	20.9	- 2.0	68	3	-26	28	0	28			1.71	0.93	0.66	11	0	14.5	13						8	3	17	7.0	
NORTH PLATTE	2779	914.0	1014.6	42	12	26.9	- 1.0	79	11	-22	28	0	28	14	65	0.72	0.20	0.34	5	0	10.7	4	10.6	NNW	42	N	4	6	7	15	6.6	56
OMAHA	978	976.6	1018.6	33	17	25.0	- 1.5	63	3	-14	28	0	25	19	81	1.94	0.99	0.82	14	2	13.2	10	12.1	NNW	47	N	4	7	4	17	6.9	38
OMAHA N OMAHA AP	1323	968.0		31	15	22.9	- 1.4	57	4+	-15	28	0	26			1.89	0.89	0.75	12	1	12.6	10						7	3	18	7.1	
SCOTTSBLUFF	3950	876.1	1014.5	43	14	28.3	- 0.2	77	11	-28	28	0	26	15	62	0.70	0.30	0.27	9	0	9.2	5	12.1	WNW	38*	NW	4	7	6	15	7.0	
VALENTINE	2587	923.1		35	8	21.7	- 1.3	75	12	-27	28	0	27	15	78	1.43	0.87	0.81	9	0	17.5	16	9.9	N#	42	N	4	5	10	13	7.0	58
NEVADA																																
ELKO	5075	841.2	1015.3	38	19	28.5	0.5	52	11	- 3	1	0	28	21	76	1.67	0.78	0.60	16	1	4.7	6	7.1	SW	26*	S	11	4	6	18	7.3	
ELY	6257	804.6	1014.5	40	18	29.4	2.8	59	3	-18	27	0	24	20	73	1.51	0.81	0.52	14	0	5.9	5	9.7	S	36	S	11	6	1	21	7.4	37
LAS VEGAS	2162	947.9	1013.8	61	39	49.9	1.6	70	5+	19	28	0	3	29	49	0.39	-0.05	0.17	5	1	T	0	10.2	SW	35*	NNW	16	9	7	12	5.6	66
RENO	4404	859.1	1015.6	45	23	34.1	- 2.0	58	6	-12	27	0	21	25	74	3.69	2.67	1.55	12	0	13.3	4	5.9	S	33	S	15	2	11	15	7.3	50
WINNEMUCCA	4299	865.6		41	20	30.2	- 2.1	51	14	- 7	27	0	26	25	82	2.17	1.23	0.59	8	0	8.4	7	5.9	S	29	S	22	4	7	17	7.6	37
NEW HAMPSHIRE																																
CONCORD	339	1008.7	1020.0	30	6	17.8	- 4.9	45	5	-19	12	0	28	13	42	2.59	0.11	0.60	13	0	29.8	28	5.3	NW	20	E	14+	8	4	16	6.6	46
MT WASHINGTON OBS	6262	796.0		14	- 3	5.3	- 0.2	37	5	-29	7	0	28		72	6.35	1.14	1.48	16	0	42.1	14	37.0	W	102	W	17	7	3	18	6.8	43
NEW JERSEY																																
ATLANTIC CITY	58	1016.9	1019.1	42	27	34.1	- 0.6	60	5	4	11	0	22	26	71	3.47	0.34	1.03	13	0	4.6	2	9.3	W	29*	W	24+	5	7	16	7.0	35

See footnotes at end of table

CLIMATOLOGICAL DATA

ENGLISH UNITS

State and Station	Elevation (ground)	Pressure		Temperature											Average relative humidity	Precipitation							Wind					No. of days (sunrise to sunset)			Sky cover tenths (sunrise to sunset)	Possible sunshine
												No of days							No. of days		Snow, Sleet				Fastest mile							
		Station ○	Sea level	Average maximum	Average minimum	Average	Departure from normal	Highest	Date	Lowest	Date	Max. 90 F. or above	Min 32 F or below	Average dew point		Total	Departure from normal	Greatest in 24 hours	.01 inch or more	With thunderstorms	Total	Maximum depth on ground	Average speed	Prevailing direction	Speed	Direction	Date	Clear, 0-3	Partly cloudy, 4-7	Cloudy, 8-10		
	Ft.	Mb	Mb	F	F	F	F	F.		F				F	%	In	In.	In			In	In	M p.h		M.p.h							%
NEW JERSEY																																
ATLANTIC CITY U	10			39	30	34.5	- 0.9	48	24+	14	11	0	20			3.25	0.01	1.20	13				13.2		31*	NW	24+					
NEWARK	11	1018.0	1019.4	37	24	30.3	- 2.4	55	5	3	11	0	23	21	61	4.25	1.45	0.99	15	0	13.1	3	9.3	NNE	24*	NNW	24	6	4	18	7.5	
TRENTON U	56	1010.9		38	24	31.0	- 2.4	60	5	0	11	0	24			4.11	1.52	0.95	16	0	11.2	4	8.6	N#	31	NW	24	5	7	16	7.2	46
NEW MEXICO																																
ALBUQUERQUE	5310	846.3	1013.8	56	29	42.3	2.4	69	11	9	28	0	21	22	50	0.11	-0.27	0.04	3	0	T	0	7.6	N	38	W	25	12	10	6	4.2	79
CLAYTON	4969	841.5		55	24	39.8	3.8	80	11	- 4	28+	0	19			0.03	-0.34	0.03	1	0	0.6	1						14	7	7	4.0	
RATON	6379	801.2		53	21	36.7	4.0	72	11	- 3	28	0	26			0.14	-0.18	0.19	3	0	5.5	5						16	4	8	4.1	
ROSWELL	3612	890.3		68	29	48.8	8.2	87	12	15	28	0	19	24	43	0.51	0.09	0.51	1	1	T	0	10.3		44	W	4	15	7	6	3.4	
SILVER CITY	5373	832.0		60	33	46.3		73	11+	14	28	0	13			0.14		0.14	1	0	T	0						12	12	4	4.1	
NEW YORK																																
ALBANY	277	1016.1	1019.9	29	12	20.5	- 3.2	47	5	-18	11	0	26	16	49	3.65	1.45	1.21	17	0	34.5	17	8.7	N	30	NW	6	4	5	19	7.7	38
BINGHAMTON	1590	956.1	1017.8	27	11	18.9	- 4.3	47	5	-13	11	0	28	17	56	2.27	0.09	0.84	17	0	21.1	7	10.1	SSE	50	SE	14	2	5	21	8.1	29
BUFFALO	705	989.1	1018.6	29	14	21.3	- 1.8	54	5	- 8	11	0	28	16	54	2.65	-0.07	1.05	22	1	28.2	12	11.9	WSW	31	W	22+	1	7	20	8.4	26
NEW YORK U	132	1006.5		38	26	31.8	- 1.6	56	5	4	11	0	22	20	65	3.74	0.90	0.83	15		9.6	2	10.2	NE#	32	NE	24	9	3	16	6.6	41
NEW YORK	19	1017.3	1019.2	36	25	30.8	- 2.8	53	5	4	11	0	24	22	66	4.08	0.99	0.87	14	0	11.3	3	14.7	NE	33	NW	6	6	4	18	7.3	
ROCHESTER	543	998.9	1019.2	30	13	21.4	- 3.5	52	5	-10	11	0	28	17	59	2.87	0.34	0.95	13	1	28.2	11	12.6	WSW	42	NE	24	0	7	21	8.6	36
SCHENECTADY	217			31	13	21.9	0.0	46	5	-15	11	0	26			2.91	0.68	0.87	13		32.7	20						8	9	11	5.6	
SYRACUSE	424	996.2	1019.4	31	13	21.5	- 2.8	55	5	-12	2	0	28	16	42	2.96	-0.17	0.96	13	1	35.0	10	10.7	WSW	36	NW	5	3	3	22	8.3	50
NORTH CAROLINA																																
ASHEVILLE U	2203	936.8		57	35	45.8	5.2	72	4	12	7	0	9			3.58	0.54	1.18	12	2	T	T	9.6	N#	29	S	23+	10	4	14	6.0	56
CAPE HATTERAS R	7	1017.2	1017.9	56	39	47.7	1.2	73	23	23	1	0	10	43	83	1.65	-2.28	0.52	10	2	T	T	11.4	N	48	SW	22	6	7	15	7.0	62
CHARLOTTE	735	989.0	1017.9	57	36	46.7	2.0	78	28	20	7	0	11	34	67	4.27	0.72	1.53	12	1	T	T	5.9	SSW	24	S	24	5	8	15	6.6	49
GREENSBORO	891	985.4	1018.3	53	32	42.4	1.4	75	28	16	11	0	17	32	73	4.74	1.44	1.34	13	2	0.4	T	8.7	SW	25	SW	24	6	3	19	6.9	43
RALEIGH	433	1003.8	1018.1	54	34	43.9	0.9	79	28	16	7	0	17	34	71	2.74	-0.49	0.88	11	1	0.4	T	8.5	SSW	25*	SSW	24	5	8	15	6.9	47
WILMINGTON	30	1016.0	1019.0	63	40	51.6	2.9	85	28	22	11	0	8	42	73	2.27	-1.15	1.31	10	1	1.0	T	9.9	N	33	SW	9	7	8	13	6.5	58
WINSTON SALEM	967	982.1	1018.3	53	33	42.5	0.8	75	28	17	11+	0	16	30	67	4.61	1.13	1.04	13	2	0.5	1	9.6	NE	30*	NE	2+	6	5	17	6.6	
NORTH DAKOTA																																
BISMARCK	1647	956.7	1019.6	20	1	10.3	- 2.2	52	2	-34	28	0	28	5	80	0.31	-0.12	0.17	10	0	4.8	4	8.7	SE	38	NW	4	5	3	20	8.0	54
DEVILS LAKE U	1471	964.6		12	- 7	3.0	- 5.6	39	2	-33	28	0	28			0.56	0.19	0.23	9	0	6.0	13	7.8	N#	34	NW	4	4	7	17	7.6	60
FARGO	900	984.8	1021.8	15	- 4	5.6	- 5.1	40	2	-34	28	0	28	0	74	0.97	0.46	0.35	7	0	10.1	10	10.3	NNW	55	NW	4	3	4	21	8.1	35
WILLISTON U	1899	947.2		21	- 3	8.8	- 4.6	52	2	-41	28	0	28			0.94	0.46	0.43	12	0	9.5	7	8.2	NE#	45	NW	4	6	4	18	7.4	43
OHIO																																
AKRON	1209	979.2	1018.5	35	18	26.6	- 1.1	58	4	- 1	2	0	27	22	80	2.15	-0.15	0.72	17	0	12.7	5	13.2	SW	51*	SW	14	2	2	24	8.7	
CINCINNATI ORS	761			43	26	34.3	- 0.8	71	4	4	7+	0	23			5.68	2.88	1.76	11	2	8.0	3	7.1	NE	27	W	13					33
CINCINNATI U	553	994.3		45	28	36.5	0.5	72	4	5	7	0	16			5.54	2.99	1.65	11		6.4											
CLEVELAND	777	989.1	1018.1	33	19	26.0	- 2.1	58	4	- 1	7+	0	27	19	70	1.85	-0.48	0.77	17	2	16.2	7	12.8	WSW	36	N	24	1	3	24	8.9	33
COLUMBUS	812	987.4	1018.6	37	21	28.8	- 3.3	62	26	1	10	0	26	22	68	3.46	1.15	1.19	14	0	8.8	4	9.4	WNW	38	W	14	3	2	23	8.4	26
COLUMBUS U	724			38	23	30.8	- 2.1	64	4	4	7	0	24			3.63	1.44	1.31	13		10.5	4										
DAYTON	1002	980.3	1017.9	37	21	29.0	- 1.9	65	4	0	2	0	26	23	74	2.42	0.10	0.63	13	0	12.1	4	11.2	WNW	39	W	13	2	4	22	8.4	30
MANSFIELD	1296			34	17	25.8	- 2.0	57	4	- 2	7+	0	27			1.52	-1.08	0.40	14	1	14.8	5						2	4	22	8.5	
SANDUSKY U	603	995.0		33	21	27.2	- 2.4	57	4	3	7	0	27			2.07	-0.02	0.79	15		15.3	5	10.6		44	NE	24	0	8	20	8.6	35
TOLEDO	676	992.5	1018.8	32	18	24.8	- 2.5	53	4	- 3	2	0	28	18	75	2.17	0.29	0.60	13	0	14.2	7	11.2	ENE	36	W	14	2	4	22	8.3	30
YOUNGSTOWN	1178	973.8	1018.0	33	17	25.2	- 3.4	56	4	- 4	2	0	27	20	78	2.07	-0.43	0.75	17	0	16.0	5	12.1	SE	35*	W	14	2	1	25	9.0	
OKLAHOMA																																
OKLAHOMA CITY	1280	971.8	1016.3	57	33	45.1	4.3	84	12	7	28	0	15	32	65	1.02	-0.35	0.51	6	3	0.8	1	14.4	SSE	38	NE	27	11	7	10	5.1	68
TULSA	650	991.4	1016.4	54	31	42.5	1.4	86	12	6	28	0	16	28	62	1.44	-0.33	0.62	6	2	1.8	2	13.1	N	29*	N	5	10	4	14	5.9	54
OREGON																																
ASTORIA	8	1011.9	1012.4	51	37	43.7	0.9	62	15	19	26	0	8	38	82	5.61	-4.28	1.63	19	0	4.0	4	9.7	ESE	31*	SSW	6	5	2	21	7.7	
BURNS U	4151	868.6		39	20	29.3	- 0.4	47	5+	- 4	27	0	28	23	78	2.13	0.86	0.58	14	0	9.4	4						3	9	16	7.2	
EUGENE	361	999.7		50	35	42.3	- 0.3	69	2	18	26	0	10			4.53	-0.44	0.95	14	0	T	T	7.1		31*	S	16	5	2	21	8.1	
MEACHAM	4050			35	23	28.8	- 0.3	49	3	- 4	27	0	27			1.80	-2.20	0.62	19	0	15.8	10						3	6	19	8.2	
MEDFORD	1298	965.5	1013.9	52	29	40.7	- 0.9	59	6+	10	26	0	17	32	75	1.05	-1.35	0.27	12	1	T	T	4.9	SE	30*	SSE	7	3	5	20	7.6	
PENDLETON	1482	959.7	1014.3	48	32	39.8	2.9	64	2	12	26	0	11	29	69	0.72	-0.46	0.20	12	0	1.3	T	7.9	NW	29*	W	22	4	6	18	7.8	

See footnotes at end of table

CLIMATOLOGICAL DATA

ENGLISH UNITS

State and Station	Elevation (ground)	Pressure		Temperature										Average dew point	Average relative humidity	Precipitation							Wind					No of days (sunrise to sunset)			Sky cover tenths sunrise to sunset	Possible sunshine
												No of days							No of days		Snow, Sleet				Fastest mile							
		Station Ø	Sea level	Average maximum	Average minimum	Average	Departure from normal	Highest	Date	Lowest	Date	Max. 90 F or above	Min. 32 F. or below			Total	Departure from normal	Greatest in 24 hours	01 inch or more	With thunderstorms	Total	Maximum depth on ground	Average speed	Prevailing direction	Speed	Direction	Date	Clear, 0-3	Partly cloudy, 4-7	Cloudy, 8-10		
	Ft	Mb.	Mb.	F.	F.	F.	F.	F.		F				F.	%	In.	In.	In.			In	In	M.p.h.		M p h							%
OREGON																																
PORTLAND	21	1007.5	1013.2	50	36	43.0	1.0	61	1	20	27+	0	11	34	74	3.43	-0.79	0.60	15	1	3.8	3	9.6	ESE	47	SE	6	2	5	21	8.1	36
PORTLAND U	30			50	38	44.1	0.3	62	1	21	26	0	6			4.27	-0.63	0.85	16		6.1	4										
ROSEBURG	505	994.6		52	35	43.2	-0.1	64	2	16	27+	0	9			3.35	-0.86	0.78	15	0	T	T	4.0	N#	24	S	13+	1	4	23	8.4	29
SALEM	195	1005.4	1013.1	49	32	40.8	-1.6	61	15	10	26	0	14	36	84	3.97	-1.34	0.70	16	1	8.4	5	7.6	S	35*	SSW	7	4	2	22	8.0	
SEXTON SUMMIT R	3836	878.1		41	31	35.9	0.3	66	1	9	26	0	17			5.97	1.85	1.65	16	0	8.7	3	13.2	S				4	2	22	7.8	
PACIFIC AREA																																
CANTON ISLAND	8	1008.9	1009.3	88	78	82.6	-0.3	89	2+	76	28+	0	0	71	72	0.16	-1.97	0.07	5	0	0.0	0	12.0	ENE	23*	ENE	28+	10	13	5	4.5	
ENIWETOK	13	1009.8		86	78	82.4	1.5	88	25+	77	23+	0	0	71	71	0.79	-1.05	0.44	9	0	0.0	0	18.8									
JOHNSTON	7	1013.9	1014.5	80	72	76.1	-0.9	85	1	64	21+	0	0	67	72	3.91	2.38	2.23	10	0	0.0	0	13.2	E	34	E	13	14	13	1	3.8	86
KOROR R	94	1005.5	1009.3	85	76	80.5	0.2	88	7+	73	22+	0	0	75	87	9.08	1.95	2.21	25	2	0.0	0	7.8	NE	25	NE	8	0	0	28	10.0	37
KWAJALEIN	8	1008.4	1009.3	87	77	81.6	1.6	89	17	74	22+	0	0	73	76	4.84	2.69	2.63	13	0	0.0	0	14.5	ENE	24*	ENE	27+	5	13	10	6.1	
MAJURO	10	1009.2	1009.5	86	77	81.6	1.2	88	24	73	4	0	0	74	79	5.15	-3.40	1.13	20	0	0.0	0	13.5	ENE	35	E	16	2	13	13	7.4	70
PONAPE R	123	1004.4	1008.9	86	76	80.9	0.4	89	23	72	13	0	0	74	81	16.04	6.30	4.86	21	1	0.0	0	8.6	NNE	23	E	17	0	2	26	9.6	44
TAGUAC GUAM R	361			82	73	77.5	-0.8	85	5	66	27	0	0			9.17	5.68	5.49	23	0	0.0	0	9.7	NE#	36	NE	17					52
TRUK MOEN ISLAND	5	1008.5	1008.8	85	77	81.1	0.4	87	24+	71	19	0	0	74	79	9.85	3.56	4.47	13	0	0.0	0	7.9	NNE	31	S	18	0	5	23	9.0	51
WAKE ISLAND	11	1014.3	1014.7	81	72	76.6	-0.5	85	21	67	23+	0	0	66	71	1.63	0.28	1.34	7	0	0.0	0	12.9	ENE	33*	NE	11	9	13	6	5.0	
YAP R	55	1007.3	1009.3	86	76	80.7	0.3	90	3	72	10	1	0	76	84	13.36	8.72	5.94	19	0	0.0	0	11.4	NE	33	NE	9	0	0	28	10.0	59
PENNSYLVANIA																																
ALLENTOWN	376	1004.5	1019.4	35	19	27.0	-2.2	51	4	-6	11	0	25	21	73	4.59	1.95	1.14	15	0	14.7	5	9.5	NE	33*	NW	24	4	8	16	7.4	
ERIE	732	990.9	1018.1	32	17	24.5	-1.9	59	4	-3	11	0	26	19	75	1.84	-0.48	0.46	15	1	14.4	7	12.7	NE	35*	ENE	24	0	5	23	8.9	
HARRISBURG	335	1004.7	1019.2	35	21	28.2	-4.4	53	4	0	11	0	26	20	65	4.33	2.02	1.01	17	0	15.9	5	7.8	ESE	32	W	20	5	4	19	7.6	39
PHILADELPHIA	5	1014.1	1018.9	37	23	30.4	-2.8	54	5	3	11	0	24	22	66	3.51	0.71	0.85	14	0	12.5	4	9.5	N	28	NW	24+	5	6	17	7.5	38
PHILADELPHIA U	35			40	27	33.2	-1.9	63	5	4	11	0	21																			
PITTSBURGH	1151	986.9	1018.2	36	20	28.3	-0.9	60	26	-4	11	0	26	21	71	3.55	1.36	1.58	14	0	8.6	3	10.5	WNW	46	W	14	2	3	23	8.7	31
PITTSBURGH U	749			42	25	33.1	-0.3	64	26	5	11+	0	23			3.71	1.40	1.85	14		8.8											19
READING U	266	1006.5	1016.2	37	24	30.8	-2.6	58	4	4	11	0	24			4.28	1.64	0.99	14	0	13.5	7	9.7	N	38	NW	24	6	7	15	7.1	42
SCRANTON	940	983.5	1019.4	32	17	24.6	-2.7	55	5	-10	11	0	27	18	66	3.04	1.05	1.60	14	0	11.2	3	7.7	NNW	29	NW	6	2	9	17	7.7	38
WILLIAMSPORT	527	999.8	1019.7	35	19	26.8	-2.4	50	4	-3	11	0	26	19	67	4.05	1.54	1.53	18	0	19.7	5	8.1	E	27*	SSE	14	3	7	18	7.7	
RHODE ISLAND																																
BLOCK ISLAND	110	1013.5	1018.0	34	23	28.5	-2.8	48	5	4	11	0	25			6.44	3.15	2.01	15	0	12.0	3						7	3	18	7.0	
PROVIDENCE	55	1012.6	1019.1	35	18	26.6	-3.1	57	5	-2	11	0	26	19	62	5.16	2.06	1.53	15	0	30.9	18	10.3	N	30*	N	24	8	2	18	6.8	50
SOUTH CAROLINA																																
CHARLESTON	41	1017.8	1018.2	69	43	56.2	4.7	86	28	26	11	0	4	45	71	1.28	-2.01	0.58	5	3	0.0	0	9.0	SSW	36Y	N	10	7	8	13	5.8	65
CHARLESTON U	9			66	48	56.6	4.3	83	27	29	11	0	2			0.79	-2.28	0.58	6		0.0	0	10.4		30	NE	25+					
COLUMBIA	217	1005.1	1018.3	65	40	52.5	4.1	84	28	24	7	0	5	40	67	5.18	1.44	3.69	11	4	0.0	0	6.5	SW	25*	NW	22	9	7	12	6.0	53
FLORENCE	146	1011.9	1017.8	63	39	51.2	2.4	84	28	23	11	0	7	38	67	4.14	0.97	2.86	10	4	T	T	8.2	S	21*	SW	28+	9	5	14	6.3	
GREENVILLE	1009	979.4	1017.4	60	38	49.0	3.1	76	14	20	7	0	5	36	68	4.71	0.57	1.51	10	3	T	T	8.3	ENE	25	SW	23	7	8	13	6.1	59
SPARTANBURG	801	987.2	1017.8	59	36	47.7	2.7	77	27	20	7	0	10	35	68	4.86	0.86	1.76	9	1	T	T	7.8	SW	40*	SSW	23	7	9	12	6.0	
SOUTH DAKOTA																																
HURON	1282	970.5	1020.5	22	2	12.0	-5.1	59	3	-39	28	0	28	10	89	3.87	3.27	2.16	11	0	39.9	28	13.1	NNW	49	NW	4	3	4	21	8.5	45
RAPID CITY	3165	899.4	1016.1	35	14	24.2	0.1	71	10	-18	28	0	23	14	72	0.98	0.50	0.40	10	0	6.9	4	11.5	NNW	49	N	4	4	6	18	7.3	53
SIOUX FALLS	1420	965.1	1016.9	25	9	17.2	-1.9	57	3	-31	28	0	28	9	71	4.05	3.12	2.00	13	1	48.4	31	11.9	NE	35*	NW	4	3	8	17	7.9	
TENNESSEE																																
BRISTOL	1507	961.4	1016.9	55	34	44.4	4.9	69	23	11	7	0	11	34	69	5.38	1.82	1.33	13	3	T	T	7.2	NE	32*	NW	28	8	4	16	6.8	
CHATTANOOGA	670	989.5	1017.7	61	38	49.5	5.6	78	27	17	7	0	8	38	71	9.47	4.10	3.74	10	5	T	T	8.4	S	36	W	9	9	6	13	6.2	57
KNOXVILLE	950	981.5	1017.5	59	36	47.2	4.6	74	13	13	7	0	8	34	65	7.96	3.15	2.46	12	3	T	T	9.5	NE	43	SW	9	5	6	17	7.0	50
MEMPHIS	263	1001.8	1016.9	61	40	50.3	5.7	81	13	21	6	0	5	40	72	4.22	-0.47	1.32	10	7	T	T	8.5	SSW	35	SE	18	12	2	14	5.6	55
MEMPHIS U	271			58	40	49.1	4.4	78	13	22	6	0	5			4.44	-0.11	1.39	10		T	T										
NASHVILLE	577	996.7	1017.0	58	34	46.2	4.2	84	13	11	7	0	12	38	77	9.07	4.56	4.02	12	6	1.1	1	9.2	S	52	NW	27	7	6	15	6.5	48
OAK RIDGE	905	982.9		57	34	45.6	4.0	74	13	10	7	0	12			9.01	3.21	2.51	13	5	0.2	T	4.3		37Y		23+	10	1	17	6.4	
TEXAS																																
ABILENE	1759	952.6	1014.3	69	40	54.5	6.1	87	12+	13	28	0	8	31	49	0.04	-1.05	0.03	2	1	T	T	11.0	SSW	36	SE	20	15	5	8	4.1	75
AMARILLO	3607	885.8	1010.8	61	30	45.5	5.7	86	12	3	28	0	12	23	49	0.39	-0.23	0.38	2	0	0.1	T	15.8	SW	47	S	25	17	7	4	3.3	86

See footnotes at end of table

CLIMATOLOGICAL DATA

ENGLISH UNITS

State and Station	Elevation (ground)	Pressure		Temperature											Average relative humidity	Precipitation							Wind					No. of days (sunrise to sunset)			Sky cover, tenths (sunrise to sunset)	Possible sunshine
												No of days							No of days		Snow, Sleet				Fastest mile							
		Station	Sea level	Average maximum	Average minimum	Average	Departure from normal	Highest	Date	Lowest	Date	Max. 90 F. or above	Min. 32 F. or below	Average dew point		Total	Departure from normal	Greatest in 24 hours	01 inch or more	With thunderstorms	Total	Maximum depth on ground	Average speed	Prevailing direction	Speed	Direction	Date	Clear, 0-3	Partly cloudy 4-7	Cloudy, 8-10		
	Ft	Mb.	Mb.	F.	F.	F.	F.	F.		F.				F.	%	In	In	In			In.	In	M.p.h		M p.h.							%
TEXAS																																
AUSTIN	597	992.9	1015.3	73	48	60.4	6.6	87	9	26	28	0	2	46	64	0.63	-1.95	0.31	6	4	T	0	10.2	S	30	N	28	12	8	8	5.1	58
BROWNSVILLE	16	1011.3	1014.1	80	61	70.5	6.5	93	9	39	28	1	0	63	81	0.05	-1.43	0.02	3	0	0.0	0	12.9	SSE	33	S	21	8	8	12	6.0	49
CORPUS CHRISTI	43	1013.2	1014.7	78	57	67.6	7.2	93	9	32	28	1	1	58	76	0.06	-1.64	0.05	3	0	0.0	0	14.1	SSE	35	S	17	10	6	12	5.6	62
DALLAS	481	996.4	1015.6	67	43	54.6	5.1	86	8	20	28	0	4	40	63	3.02	0.47	1.16	5	4	T	T	12.2	S	36	N	5	15	3	10	4.6	63
DEL RIO U	957			77	50	63.4	6.3	90	9	31	28	1	1			0.27	-0.80	0.14	3	1	0.0	0										
EL PASO	3918	884.6	1011.2	67	40	53.5	3.9	79	12+	30	1	0	4	26	39	0.58	0.17	0.56	3	0	0.0	0	8.6	WSW	47	W	25	14	10	4	3.7	87
FORT WORTH	544	994.2	1015.5	66	40	53.3	4.1	85	8	19	28	0	4	40	66	2.01	-0.23	0.71	6	4	T	T	14.6	S	51*	N	5	16	2	10	4.3	
GALVESTON U	7			67	58	62.1	5.3	75	23	38	28	0	0			0.79	-2.09	0.45	11		0.0	0	13.3		40	SE	15					57
GALVESTON	5	1013.5	1016.0	67	57	61.9	5.3	76	23	37	28	0	0	56	83	0.81	-2.54	0.52	9	1	0.0	0	11.0	SE				9	6	13	6.0	
HOUSTON U	41			74	57	65.9	8.8	86	9	36	28	0	0			0.77	-2.44	0.27	9		0.0	0										
HOUSTON	50	1013.1	1016.2	75	53	63.8	6.5	87	9	33	28	0	0	56	82	0.71	-2.73	0.25	10	0	0.0	0	11.8	SSE				6	7	15	6.5	54
LAREDO	500	998.0	1013.5	83	57	69.7	8.0	96	9	39	28	5	0	49	57	T	-0.89	T	0	0	0.0	0	10.3	SE	21*	NNW	28+	15	6	7	4.1	
LUBBOCK	3243	901.6	1012.9	66	31	48.4	5.3	86	12	7	28	0	14	27	49	0.02	-0.55	0.02	1	0	T	T	16.8	W	46*	SW	25	16	8	4	3.4	
MIDLAND	2854	913.5	1010.8	69	39	54.1	5.8	86	12	14	28	0	6	27	41	0.03	-0.57	0.03	1	0	T	0	10.9	S	35*	SW	8	14	8	6	3.8	
PORT ARTHUR	16	1014.8	1015.7	74	51	62.5	7.0	84	9	36	7	0	0	56	84	0.72	-3.73	0.37	10	1	0.0	0	11.1	S	35	S	26+	7	4	17	6.7	47
SAN ANGELO	1903	946.4	1011.8	73	39	55.8	5.8	86	12+	16	28	0	8	32	47	0.11	-0.79	0.07	2	0	T	T	10.3	S	28*	W	8	16	6	6	3.5	
SAN ANTONIO	792	989.3	1014.6	75	51	62.8	7.4	91	9	32	28	1	1	47	63	0.90	-0.75	0.67	4	1	0.0	0	10.1	NE	31	N	28	14	6	8	4.5	58
VICTORIA	104	1010.4		75	53	63.8	5.9	90	9	31	28	1	1			0.31	-2.03	0.24	4	1	0.0	0	12.3		46Y	N	28	9	8	11	5.6	
WACO	500	996.6	1015.5	70	45	57.1	5.6	88	8	24	28	0	3	44	66	1.41	-1.01	0.60	4	3	T	T	15.3	S	39*	N	5	14	2	12	5.1	
WICHITA FALLS	994	977.3	1014.7	66	36	50.5	4.7	88	11	13	28	0	11	31	54	0.26	-1.12	0.21	3	1	0.8	1	11.5	NNE	32*	NNE	5	16	2	10	4.1	
UTAH																																
MILFORD	5028	840.8		43	21	31.8	2.1	60	10	-14	27	0	20			1.50	0.80	0.56	10	0	9.6	3						6	6	16	6.7	
SALT LAKE CITY	4220	865.2	1016.7	39	24	31.4	-1.6	64	11	-2	27	0	19	26	83	1.43	0.25	0.42	13	2	10.1	4	9.9	S	30	S	20	0	3	25	9.2	28
WENDOVER	4237	867.9		39	25	31.7	-1.1	59	11	7	27	0	23			1.29	0.99	0.58	12	0	4.9	2						3	7	18	7.7	
VERMONT																																
BURLINGTON	331	1004.5	1020.0	24	3	13.7	-5.7	47	5	-25	2	0	26	14	24	1.36	-0.43	0.52	12	0	24.3	17	8.5	S	30	S	5	7	5	16	6.9	41
VIRGINIA																																
LYNCHBURG	947	992.3		48	30	38.9	0.0	72	28	11	7	0	20			2.88	0.23	0.71	13	0	2.0	1	8.1		26	NW	24	6	5	17	6.9	39
NORFOLK	26	1017.1	1018.6	50	32	41.0	-0.6	76	28	19	11	0	17	33	76	2.50	-0.71	0.49	13	2	0.8	1	10.8	N	31	S	24	4	8	16	7.2	39
RICHMOND	162	1012.3	1018.8	49	30	39.7	-0.2	72	24	14	11	0	20	31	78	3.00	0.10	0.82	14	0	1.2	1	7.6	NNE	25	NW	24	5	4	19	7.6	37
ROANOKE	1174	974.9	1018.3	50	31	40.2	1.0	73	4	11	7	0	17	28	64	3.22	0.36	0.75	12	0	3.3	2	9.1	SE	40*	SW	22	8	4	16	6.5	
WASHINGTON																																
OLYMPIA	190	1006.8	1013.6	50	32	40.8	-0.1	70	2	12	27	0	13	35	80	3.72	-2.90	0.70	17	0	7.5	6	6.5	SW	25*	SW	22	4	6	18	7.6	
SEATTLE TACOMA	400	998.6	1012.9	49	37	43.1	2.3	64	2	18	26	0	8	34	74	2.29	-1.95	0.45	14	0	7.0	7	8.8	SE	30*	S	3	4	5	19	7.5	
SEATTLE	14		1013.0											36	74								4.4	SSE								
SEATTLE U	14			50	40	45.4	1.8	63	1	24	26	0	6			1.93	-1.97	0.50	15		6.0	6			42	SW	3					42
SPOKANE	2357	944.8	1014.7	39	26	32.4	2.4	56	2	3	26	0	19	23	71	1.72	-0.14	0.43	11	0	4.5	3	8.6	NE	26	SW	14+	2	5	21	8.4	44
STAMPEDE PASS R	3958	874.0		33	25	28.7	2.1	57	1	6	24	0	25			2.98	-7.17	0.82	16	0	24.5	78						1	6	21	8.5	
TATOOSH ISLAND	101	1009.1	1012.7	47	40	43.9	0.8	53	7	29	28+	0	5	36	76	4.23	-4.47	0.82	13	0	5.6	6	17.2	ENE	49	S	6	7	1	20	7.3	40
WALLA WALLA U	949	978.0		46	32	39.3	0.9	61	2	13	26+	0	12			0.92	-0.60	0.24	14	0	2.6	2	4.7	E#	22	NW	21	4	6	18	7.6	37
YAKIMA	1061	975.3	1015.1	45	27	35.6	1.6	61	3	8	27	0	21	27	74	1.48	0.61	0.42	11	0	3.6	2	6.0	WNW	28*	NW	22+	4	6	18	7.8	
WEST INDIES																																
SAN JUAN P.R. U	47			80	70	74.9	-0.2	88	11	65	15	0	0			3.17	0.47	1.25	14		0.0	0										
SAN JUAN P.R.	15	1014.8	1018.1	81	67	74.2	-0.2	85	11+	62	17+	0	0	66	77	2.67	-0.23	1.32	15		0.0	0	7.5	ENE	27	[illegible]	14	5	20	3	5.2	59
SWAN ISLAND	28	1013.7		83	75	79.1	0.7	85	28+	71	8	0	0			0.32	-0.84	0.13	5		0.0	0						8	18	2	4.4	
WEST VIRGINIA																																
CHARLESTON	939	981.1	1017.3	50	31	40.2	2.7	71	4	1	7	0	14	30	69	5.37	1.84	2.08	16	1	4.8	3	7.2	WNW	27*	SW	19	3	4	21	8.3	
HUNTINGTON U	827	986.7	1017.7	49	30	39.2	0.6	73	4	3	7	0	19	29	71	5.66	2.56	2.09	15	2	2.7	1	6.7	WNW	23	SW	24+	5	3	20	7.9	
PARKERSBURG U	621			45	27	36.0	0.5	70	4	2	7	0	21			5.09	2.26	1.51	13	0	7.0	4	7.4		31	W	14					23
WISCONSIN																																
GREEN BAY	682	995.5	1019.6	23	5	13.9	-3.7	37	4	-17	28	0	28	11	86	2.02	0.94	0.58	14	0	20.6	19	9.3	NE	32	W	5	7	5	16	7.1	36
LA CROSSE	652	993.5		25	9	16.8	-2.6	47	4	-17	28	0	28	11	77	1.82	0.77	0.54	15	0	25.9	18	10.4	NW	35*	W	4	3	8	17	7.6	
MADISON	858	981.4	1018.8	25	9	17.0	-3.0	46	4	-20	28	0	28	13	79	1.39	0.26	0.42	14	0	16.1	15	10.7	WNW	30	NW	5	2	8	18	8.1	33

See footnotes at end of table

CLIMATOLOGICAL DATA
ENGLISH UNITS

State and Station	Elevation (ground)	Pressure		Temperature											Average relative humidity	Precipitation							Wind					No of days (sunrise to sunset)			Sky cover, tenths (sunrise to sunset)	Possible sunshine
												No of days							No of days		Snow, Sleet				Fastest mile							
		Station Ø	Sea level	Average maximum	Average minimum	Average	Departure from normal	Highest	Date	Lowest	Date	Max. 90 F. or above	Min. 32 F. or below	Average dew point		Total	Departure from normal	Greatest in 24 hours	.01 inch or more	With thunderstorms	Total	Maximum depth on ground	Average speed	Prevailing direction	Speed	Direction	Date	Clear 0-3	Partly cloudy, 4-7	Cloudy, 8 10		
	Ft	Mb	Mb	F.	F.	F.	F.	F.		F				F.	%	In.	In.	In.			In	In	M.p.h.		M p h							%
WISCONSIN																																
MILWAUKEE	670	993.1	1019.3	28	14	21.1	- 1.3	48	4	- 6	28	0	28	16	80	2.04	0.64	0.83	13	1	22.2	16	10.9	WNW	33	E	18	3	2	23	8.5	23
WYOMING																																
CASPER	5319	832.4	1014.2	36	17	26.6	0.3	65	11	-14	23	0	22	17	67	0.44	-0.15	0.16	13	0	9.7	4	13.1	SW	36*	SSW	12	6	6	16	6.9	
CHEYENNE	6126	807.3	1014.5	39	16	27.2	- 0.6	71	11	-24	27	0	24	12	57	0.56	0.00	0.18	10	0	10.8	6	13.4	WNW	45	W	8	8	6	14	6.3	56
LANDER	5563	830.3		35	15	24.7	0.6	56	11	-15	27	0	26	13	63	0.39	-0.30	0.11	11	0	6.3	12	6.5	NE#	42	SW	10	5	12	11	5.8	59
SHERIDAN	3942	881.8	1012.6	34	14	23.9	0.1	60	12	-22	28	0	26	16	73	0.42	-0.32	0.22	6	0	4.6	3	6.6	NW	37	NW	22+	5	5	18	7.5	48

Data from airport unless otherwise specified. U indicates Urban. R indicates Rural, sites.
* Data entered in column "Fastest Mile" is the fastest mile observed. This station is not equipped with automatic wind recording instrument.
Ø Station pressures apply to elevations shown in the "Elevations - Station Pressure" table of the annual issue of this publication.

A Maximum hourly average.
+ And also on an earlier date or dates.
B Number of days maximum 70° F. or above for Alaskan Stations.
# Wind direction to 8 compass points only.
Y Peak Gust.

CLIMATOLOGICAL DATA

METRIC UNITS

State and Station	Elevation (ground)	Pressure		Temperature											Average relative humidity	Precipitation							Wind					No. of days (sunrise to sunset)			Sky cover tenths (sunrise to sunset)	Possible sunshine
												No. of days							No. of days		Snow, Sleet				Fastest mile (1.6 kilometers)							
		Station O	Sea level	Average maximum	Average minimum	Average	Departure from normal	Highest	Date	Lowest	Date	Max 32.2 °C or above	Min 0 C or lower	Average dew point		Total	Departure from normal	Greatest in 24 hours	25 mm or more	With thunderstorms	Total	Maximum depth on ground	Average speed	Prevailing direction	Speed	Direction	Date	Clear, 0-3	Partly cloudy 4-7	Cloudy 8-10		
ALABAMA	M	Mb	Mb.	C.	C.	C	C	C		C				C	%	Mm	Mm	Mm			Mm	Mm	Mps		Mps							%
BIRMINGHAM	186	992.0	1017.6	20.0	6.1	12.9	4.2	28.3	13	- 6.1	7	0	3	6.1	68	112	- 23	66	8	3	0	0	4.8	SSE	17.0	W	23	10	3	15	5.9	56
HUNTSVILLE	184	993.6	1017.3	17.2	3.9	10.7	3.4	27.8	13	- 7.2	7	0	7	4.4	71	213	80	67	13	7	0	0	4.2	SE	15.6*	SSW	23	9	2	17	6.3	
MOBILE	64	1015.6	1018.0	22.2	11.1	16.5	3.9	28.9	13	- 2.2	7	0	2	11.7	79	167	50	80	13	6	0	0	5.4	S	14.3*	N	5	6	5	17	6.8	
MONTGOMERY	59	1009.5	1017.9	21.7	8.3	15.0	4.8	29.4	13	- 2.8	7	0	3	8.9	69	64	- 47	25	9	7	0	0	3.8	S	15.2	SW	22	11	3	14	5.4	5[illegible]
ALASKA												B																				
ANCHORAGE	27	1013.5	1018.7	- 3.3	-10.6	- 6.9	0.8	4.4	20+	-23.3	3+	0	28	-10.0	80	19	1	14	4	0	36	203	1.2	N	8.9*	SSE	20+	5	4	19	7.7	37
ANNETTE	34	1011.9	1016.1	6.1	- 1.1	2.4	0.7	10.0	7	- 3.9	17+	0	21	- 5.0	62	19	-198	19	4	0	T	T	3.8	NNW	10.3*	ESE	7+	5	10	13	6.2	
BARROW	7	1020.0	1020.6	-17.2	-25.0	-21.1	6.9	- 0.6	25	-36.1	16	0	28	-25.6	69	17	12	4	13	0	211	737	6.0	E	16.5*	W	26	3	8	17	7.6	
BARTER ISLAND	12	1019.6	1021.8	-16.1	-25.0	-20.5	8.2	1.1	25	-36.1	15	0	28	-23.9	71	19	10	5	13	0	213	660	7.2	E	27.7*	W	26	4	4	20	7.7	
BETHEL	38	1012.9	1014.3	- 2.8	-11.1	- 7.1	6.1	2.8	27+	-32.2	2	0	28	- 9.4	84	12	- 16	5	12	0	99	305	5.2	NE	23.2*	S	19	1	6	21	8.5	
COLD BAY	29	1006.4	1010.4	2.8	- 1.1	0.7	2.5	6.7	27	-12.8	1	0	17	- 0.6	89	39	- 42	13	16	0	91	51	8.9	SSE	25.9*	SE	3+	1	5	22	8.6	
CORDOVA	12	1015.6	1017.4	2.2	- 7.8	- 2.8	0.4	7.2	28+	-19.4	3	0	27	- 5.6	84	69	- 49	43	9	0	300	254	1.5	N	7.2*	ESE	20	6	6	16	7.1	
FAIRBANKS	133	1002.4	1020.7	- 8.9	-18.9	-13.8	5.6	2.2	24	-38.3	3	0	28	-16.1	79	24	- 53	7	8	0	196	152	1.3	N	10.3*	ESE	21	8	5	15	6.5	56
JUNEAU	5	1016.9	1017.8	1.1	- 8.3	- 3.5	-0.6	5.6	28	-16.7	17	0	28	- 7.2	80	26	2	17	9	0	295	178	3.8	E	21.5*	E	4	7	4	17	6.9	
KING SALMON	13	1012.9	1014.8	0.0	- 9.4	- 4.7	3.4	6.7	18	-30.0	2	0	24	- 7.2	84	10	2	3	11	0	211	432	6.8	ESE	19.7*	E	19	4	3	21	8.0	
KOTZEBUE	3	1016.9	1017.4	-10.0	-17.8	-13.9	6.1	1.1	24	-32.8	2	0	28	-17.8	72	9	- 20	3	5	0	168	940	1.1	NW	15.6*	S	14	3	4	21	8.2	
MC GRATH	102	1006.4	1019.8	- 7.2	-18.3	-12.6	5.1	5.0	19	-37.2	2	0	28	-15.6	74	13	- 11	4	13	0	130	787	6.9	E	16.5*	ENE	19+	5	0	23	8.2	63
NOME	4	1014.2	1014.9	- 5.6	-12.2	- 8.8	5.9	1.7	24	-30.0	2	0	28	-10.6	84	31	T	6	16	0	124	127	7.4	SE	17.4*	ESE	17+	3	7	18	7.7	
ST. PAUL ISLAND	7	1004.4	1005.2	0.6	- 4.4	- 1.7	3.1	3.3	24	-13.9	2+	0	28	- 2.2	93	64	6	13	23	0	465	51	8.9	WSW	26.6*	WSW	27	0	3	25	9.1	
SHEMYA	37	987.8	991.6	1.7	- 1.7	0.0	0.7	3.9	27+	- 6.1	15	0	27	- 1.7	87	61	-147	29	11	0	224	127	1.0	ENE	8.9*	W	21	7	6	15	7.0	
YAKUTAT	9	1016.3	1017.5	1.7	- 7.2	- 2.7	-0.8	6.1	28+	-14.4	17+	0	26	- 4.4	90	32	19	10	13	0	671	940	1.7	N	11.2*	WSW	21	2	3	18	8.0	
ARIZONA																																
FLAGSTAFF	2131	787.0	1017.6	6.1	- 7.8	- 0.9	-0.2	15.0	5+	-26.7	28	0	28	- 5.6	75	105	60	18	12	1	823	457	3.4	S	11.2*	S	25	8	4	16	6.1	
PHOENIX	338	976.0	1015.5	20.0	6.7	13.2	0.7	28.9	10	- 1.1	28	0	1	3.3	58	21	- 1	5	10	1	0	0	2.5	E	15.6*	WSW	19	13	6	9	4.8	77
PRESCOTT	1528	845.6	1015.9	12.2	- 2.2	4.9	0.7	21.1	10	-16.7	28	0	20	- 2.2	67	35	7	11	12	0	165	76	3.6	S	19.2	SW	16	8	9	11	5.6	63
TUCSON	788	925.8	1014.6	19.4	6.1	12.6	1.3	28.3	10	- 1.7	28	0	2	0.6	51	8	- 13	4	4	0	T	0	4.0	SE	12.1	S	19	11	6	11	5.0	74
WINSLOW	1487	850.3	1016.9	8.3	- 3.3	2.5	-0.8	21.7	10	-13.3	28	0	19	- 2.2	77	15	3	7	8	0	142	51	4.4	SW	17.9*	SW	16	7	7	14	6.4	
YUMA	61	1009.8	1015.2	23.3	8.3	15.7	0.1	30.6	10	- 0.6	28	0	1	2.2	47	1	- 8	1	2	0	0	0	3.3	N	13.0	SW	19	12	8	8	4.7	76
ARKANSAS																																
FORT SMITH	137	999.4	1016.7	15.0	1.7	8.3	1.8	30.0	12	- 8.3	28	0	8	2.2	70	76	- 11	32	3	5	T	T	3.6	ENE	11.2	SW	13	11	4	13	5.6	56
LITTLE ROCK	78	1003.8	1015.8	15.6	3.9	9.6	2.7	28.3	12	- 6.1	6	0	6	3.3	70	183	73	76	10	4	T	0	4.2	N	13.0	NW	28	12	2	14	5.6	54
TEXARKANA	110			17.8	6.1	12.1	2.9	27.2	13+	- 2.2	6	0	3	7.2	77	140	38	55	9	7	T	0	3.8	SW								
CALIFORNIA																																
BAKERSFIELD	151	999.0	1017.5	13.9	5.6	9.8	-1.3	22.2	9	- 2.2	27	0	2	6.1	83	112	83	3[illegible]	17	1	0	0	3.0	NNW	11.6*	SSE	9	2	7	19	7.9	
BISHOP	1252	870.6		12.2	- 2.2	4.8	0.0	23.3	4	-11.1	27	0	23			126	101	53	10	0	15	T						10	6	12	5.5	
BLUE CANYON	1609	836.1		3.9	- 2.2	0.8	-1.7	18.9	1	-13.9	27+	0	23			590	331	123	19	0	2012	1397	4.5	SSW	23.7	SSW	9	6	1	21	7.7	
BURBANK	213	990.2	1016.7	16.1	7.2	11.9	-1.0	26.7	1	0.6	28	0	0	6.1	73	338	256	145	13	2	T	0	3.7	SE	13.0*	ESE	19	7	8	13	6.6	
EUREKA U	13	1011.5		11.7	5.6	8.7	-0.3	15.0	14+	- 2.8	27	0	2			154	14	31	15	0	T	0	3.7	SE#	13.4	N	25	4	7	17	7.6	49
FRESNO	99	1003.7	1016.1	12.8	5.0	9.1	-0.8	17.8	9	- 3.3	27	0	4	5.6	84	152	96	40	15	0	0	0	2.5	SE	10.7	E	4	3	9	16	7.4	41
LONG BEACH	10	1015.6	1017.2	15.0	7.8	11.5	-0.7	20.6	1	2.8	28+	0	0	7.8	80	200	141	64	13	3	0	0	3.4	ESE	10.3*	W	26+	7	6	15	6.9	
LOS ANGELES	30	1013.2	1017.2	15.0	8.9	12.1	-0.2	22.8	1	2.8	28	0	0	8.9	82	281	208	106	12	1	0	0	3.6	W	11.6*	W	16	6	7	15	6.6	
LOS ANGELES U	95			15.6	8.9	12.1	-1.8	25.6	1	3.9	28	0	0	7.2	76	294	209	77	12	3	0	0	3.2	SE#	12.1	SE	19+	6	8	14	6.5	51
MT SHASTA R	1080	888.6		6.7	- 2.2	2.3	-0.4	18.3	4+	-16.1	27	0	20			365	215	86	16	2	851	229						6	5	17	7.2	
OAKLAND	1	1014.9	1015.3	13.9	6.7	10.2	-0.2	17.8	2	- 0.6	27	0	1	5.0	74	185	104	37	17	1	0	0	3.9	SE	13.0*	WNW	25+	6	6	16	6.7	
POINT ARGUELLO	112	1002.7		12.8	6.1	9.4	-1.1	17.2	14	- 2.2	28	0	2			212	156	47	14	0	0	0	3.8		18.3*	S	9	4	9	15	7.1	
RED BLUFF	104	1001.4	1014.5	13.3	3.9	8.5	-1.3	21.1	3	- 3.3	27	0	6	2.8	76	177	93	54	13	3	38	51	5.4	SSE	21.0	SE	9	5	5	18	7.1	44
SACRAMENTO	5	1014.6	1015.7	12.2	5.0	8.7	-1.4	16.7	7	- 2.2	27	0	2	5.6	85	223	147	58	14	1	0	0	4.1	SSE	15.2	SE	9	4	5	19	7.6	40
SACRAMENTO U	7			12.8	5.6	9.1	-1.4	16.1	15+	- 1.1	27+	0	2			193	105	57	15		0	0										
SANDBERG R	1377	860.1		6.1	1.1	3.7	-1.5	18.3	3	-10.6	27	0	14			271	205	124	15	0	302	229	6.8	S	20.1*	S	9	5	6	17	7.0	
SAN DIEGO	4	1013.9	1017.1	17.2	10.0	13.6	-0.1	19.4	2+	6.1	28	0	0	8.3	73	78	24	26	12	1	0	0	3.3	WNW	12.5	S	11	8	8	12	6.2	51
SAN FRANCISCO	2	1014.9	1015.7	13.3	6.7	10.1	-0.4	18.3	1	2.2	27+	0	0	6.1	80	215	127	55	16	1	0	0	4.0	WNW	22.4	SSW	9	7	5	16	6.7	
SAN FRANCISCO U	16			13.3	8.3	11.0	-0.7	17.8	1	2.8	26	0	0			167	74	49	15	1	0	0	3.9	W#	17.0	SW	9					56
SANTA MARIA	73	1008.1	1017.2	14.4	5.6	10.2	-0.8	21.1	1	- 2.2	28	0	3	7.2	85	246	183	57	15	0	T	T	2.1	WNW	7.6*	WSW	25+	6	11	11	6.2	
COLORADO																																
ALAMOSA	2297	766.7		7.8	- 9.4	- 1.0	3.7	16.7	11	-21.1	28	0	28			5	1	2	5	0	119	51						11	11	6	4.6	
COLORADO SPRINGS	1882	806.3	1016.3	7.2	- 7.8	- 0.1	0.4	21.7	11	-26.7	28	0	24	- 8.9	61	9	T	3	6	0	94	76	3.8	NNE	10.3*	WSW	12+	7	12	9	5.4	
DENVER	1610	833.1	1015.3	5.0	- 7.8	- 1.2	-1.4	22.2	11	-27.8	28	0	22	- 8.9	62	27	9	18	8	0	287	178	3.6	SSW	13.4	W	8+	7	11	10	6.1	66
GRAND JUNCTION	1478	856.8	1015.1	8.3	- 1.7	3.3	2.9	19.4	11	-13.9	28	0	19	- 2.8	68	28	10	7	12	0	155	25	2.9	ESE	15.2	NW	12	7	4	17	7.1	47

See footnotes at end of table

CLIMATOLOGICAL DATA

METRIC UNITS

State and Station	Elevation (ground)	Pressure		Temperature											Average relative humidity	Precipitation							Wind					No. of days (sunrise to sunset)			Sky cover tenths (sunrise to sunset)	Possible sunshine
		Station O	Sea level	Average maximum	Average minimum	Average	Departure from normal	Highest	Date	Lowest	Date	No of days: Max 32.2 °C or above	No of days: Min. 0 C or lower	Average dew point		Total	Departure from normal	Greatest in 24 hours	No of days: 25 mm or more	No of days: With thunderstorms	Snow, Sleet: Total	Snow, Sleet: Maximum depth on ground	Average speed	Prevailing direction	Fastest mile (1.6 kilometers): Speed	Fastest mile: Direction	Fastest mile: Date	Clear 0-3	Partly cloudy 4-7	Cloudy 8-10		
COLORADO	M	Mb	Mb	C	C.	C	C.	C		C.				C	%	Mm.	Mm.	Mm			Mm	Mm	M p s		M p s							%
PUEBLO	1414	852.4	1014.2	10.6	- 6.7	2.0	0.9	25.0	11	-28.3	28	0	25	- 7.8	57	16	4	10	5	0	206	102	3.8	WNW	16.1	SW	8	10	10	8	5.1	70
CONNECTICUT																																
BRIDGEPORT	2	1019.0	1019.9	1.7	- 5.6	- 2.2	-1.4	8.9	5	-18.9	11	0	24	- 6.1	68	103	27	36	16	0	437	279	5.7	ENE	13.9*	E	19	6	4	18	7.3	
HARTFORD	52	1012.8	1019.1	0.0	-10.0	- 4.8	-2.4	8.9	5	-22.2	11	0	27	- 7.8	61	103	28	28	16	1	582	254	3.7	N	11.2	W	20+	5	5	18	7.2	42
NEW HAVEN	2	1019.1		1.7	- 6.1	- 2.5	-1.2	8.9	5	-18.3	11	0	25			120	39	32	16	0	516	254	3.6		10.3	N	20+	6	3	19	7.3	44
DELAWARE																																
WILMINGTON	24	1015.8	1019.1	3.9	- 4.4	- 0.4	-1.4	16.1	5	-18.3	11	0	22	- 4.4	73	83	8	23	14	0	203	102	4.6	NW	14.3*	NW	24	5	7	16	7.2	
DIST.OF COLUMBIA																																
WASHINGTON U	22			6.1	- 1.1	2.6	-0.5	20.6	5	-10.6	11+	0	16			91	24	27	16													
WASH NATL AP	4	1014.9	1019.4	5.0	- 2.2	1.4	-1.8	17.8	5	-11.7	11	0	21	- 4.4	63	93	30	27	17	0	165	51	3.5	N	14.8	SSW	5	4	7	17	7.4	40
FLORIDA																																
APALACHICOLA U	4	1016.4		20.6	12.8	16.6	2.8	24.4	26+	1.1	7	0	0			40	- 60	18	7	1	0	0	3.7		13.4	N	6	13	4	11	5.3	73
DAYTONA BEACH	9	1017.3	1019.1	25.0	11.7	18.2	2.3	31.1	24	3.3	12+	0	0	12.8	75	21	- 49	21	3	1	0	0	3.9	WSW	11.2*	W	6	7	12	9	5.5	
FORT MYERS	4	1017.9		27.8	13.9	20.9	2.4	33.3	25	6.7	12	1	0			14	- 42	14	2	1	0	0	3.8		10.3*	NNE	10+	11	12	5	4.4	
JACKSONVILLE	7	1017.8	1019.1	24.4	10.6	17.3	3.2	31.1	26+	- 0.6	7	0	1	11.1	74	13	- 61	8	6	1	0	0	4.1	SW	11.6	SW	9	6	12	10	6.0	53
KEY WEST	2	1017.5	1018.8	26.1	20.6	23.2	1.8	28.9	24	14.4	11+	0	0	18.3	76	12	- 38	6	3	1	0	0	4.4	SE	13.0	NW	10	15	9	4	3.6	87
LAKELAND U	65			26.1	13.9	20.1	2.8	31.1	25+	5.0	7	0	0			30	- 34	18	4	3	0	0	3.3					6	16	6	5.3	72
MIAMI BEACH	3			26.1	18.9	22.5	1.6	28.9	9	11.1	11	0	0			2	- 40	1	2		0	0	3.4		13.0	NW	10	14	11	3	3.9	76
MIAMI	2	1016.9	1018.2	27.2	16.7	21.9	1.9	31.1	9	8.9	11	0	0	16.1	74	3	- 44	2	3	1	0	0	4.1	SE	11.2*	NNE	11	10	14	4	4.5	
ORLANDO	32	1014.3	1019.0	27.2	13.3	20.2	3.9	32.2	25+	5.0	7	2	0	13.3	70	53	- 9	52	3	2	0	0	4.0	S	13.0*	WSW	10	8	15	5	5.0	
PENSACOLA U	4			20.0	12.2	16.1	2.8	25.0	27	1.1	7	0	0			63	- 45	23	12	2	0	0	3.3		9.8	N	6					64
TALLAHASSEE	18	1016.0	1018.8	23.3	10.0	16.8	3.7	29.4	14	0.0	7	0	1	12.8	82	62	- 44	20	8	4	0	0	4.3	S	13.0*	S	23+	8	8	12	5.8	
TAMPA	6	1017.6	1019.2	25.0	13.9	19.3	2.3	30.6	25	5.6	12	0	0	13.9	76	37	- 35	21	3	1	0	0	4.5	SSE	11.2*	NNW	10	10	13	5	4.9	79
WEST PALM BEACH	5	1017.5	1018.7	27.2	15.6	21.3	1.6	29.4	24+	8.3	12	0	0	16.1	75	30	- 29	27	2	2	0	0	4.2	SSE	12.1*	NW	10	10	13	5	4.4	
GEORGIA																																
ATHENS	245	988.4	1018.2	16.7	3.3	9.9	2.1	26.1	27	- 7.2	7	0	4	3.9	72	137	17	69	11	4	0	0	4.1	S	9.8*	S	24+	8	8	12	5.9	
ATLANTA	297	975.8	1018.4	16.7	3.3	10.1	2.0	26.1	27	- 7.8	7	0	5	3.9	71	129	15	70	11	5	0	0	4.5	NW	10.3*	NW	6	12	4	12	5.3	60
AUGUSTA	44	1011.0	1018.0	19.4	5.0	12.1	2.5	30.0	28	- 6.7	7	0	5	6.1	71	153	64	91	9	3	0	0	3.0	NW	11.2*	NW	28	9	7	12	6.1	
COLUMBUS	117	1003.7		21.1	6.7	13.8	4.0	28.3	13	- 5.0	7	0	6			120	3	64	13	5	0	0	4.4		13.4*	WSW	9	11	4	13	5.5	
MACON	109	1004.0	1017.9	21.1	6.7	13.9	3.3	29.4	28	- 5.0	7	0	4	6.1	65	84	- 24	34	8	6	0	0	4.5	NNW	17.0	E	19	10	4	14	5.8	66
ROME	194	994.2		17.2	2.2	9.8	2.9	26.7	27	- 7.8	7	0	9			104	- 30	52	13	4	0	0						10	5	13	5.4	
SAVANNAH	15	1016.2	1019.1	21.1	7.8	14.3	2.6	30.0	28	- 2.8	7	0	3	10.0	79	44	- 50	23	6	3	0	0	4.0	SW	11.6	SW	9	6	7	15	6.4	62
THOMASVILLE U	86			23.3	10.6	16.9	3.9	28.9	27	- 2.2	7	0	1			100	- 1	34	8	3	0	0						11	4	13	5.5	
HAWAII																																
HILO	9	1013.9	1016.0	26.7	16.7	21.5	0.1	30.0	4	11.7	21	0	0	15.6	72	135	-194	49	12	1	0	0	3.9	WSW	11.2*	SSE	20	6	13	9	5.6	56
HONOLULU	2	1015.6	1016.0	26.7	18.3	22.4	-0.1	29.4	7	12.8	21	0	0	16.1	70	67	- 17	39	13	2	0	0	4.5	NE	14.8	NW	20	10	12	6	5.1	63
LIHUE	35	1010.5	1016.3	26.1	16.7	21.3	-0.2	29.4	3	11.1	22	0	0	15.6	71	57	- 78	16	12	1	0	0	4.5	NNE	10.7	NE	26+	5	12	11	6.4	57
IDAHO																																
BOISE	865	917.7	1016.2	3.3	- 3.3	0.1	-1.0	11.7	12	-15.0	27	0	19	- 3.9	77	20	- 14	6	14	0	41	127	3.5	WNW	12.1	SE	9	2	5	21	8.4	33
IDAHO FALLS 42NW R	1460			- 1.1	-10.6	- 5.7	1.6	4.4	20+	-26.7	27	0	26			46	34	16	12													
IDAHO FALLS 46W R	1504	844.9		0.0	-11.7	- 5.8	0.7	7.8	11	-29.4	27	0	28			61	41	24	10	0	152	203	3.0	WSW	14.8A	WSW	22					
LEWISTON	431	962.4		7.2	- 1.1	3.1	0.9	15.0	2	-15.0	26	0	15			19	- 5	5	8	0	8	T						2	6	20	8.4	
POCATELLO	1355	859.8	1016.8	3.3	- 6.1	- 1.7	1.0	12.8	11	-20.0	27	0	22	- 5.6	80	30	7	9	11	0	91	76	4.7	SW	17.9	S	14	1	7	20	8.3	48
ILLINOIS																																
CAIRO U	96	1004.0		10.6	1.1	5.7	0.9	24.4	13	- 8.3	7	0	9			187	94	56	9	5	15	25	4.6	SW#	14.3	SW	13	6	9	13	6.5	52
CHICAGO O HARE	201	992.2	1016.0	- 0.6	- 7.8	- 4.2		10.0	4	-20.6	6	0	28	- 7.2	80	30		7	13	0	254	203	5.8	N	14.3*	W	13	1	6	21	8.4	
CHICAGO MIDWAY	186	994.2	1018.1	0.0	- 7.2	- 3.4	-1.2	10.0	4	-20.0	6	0	27	- 7.2	75	46	5	13	18	0	338	178	5.6	E	18.3	W	13	1	7	20	8.4	21
MOLINE	177	995.5	1018.8	- 0.6	- 8.9	- 4.6	-1.4	11.1	4	-22.8	28	0	25	- 8.9	72	47	12	20	13	0	401	229	4.6	WNW	14.8	NW	13	3	5	20	8.0	33
PEORIA	199	995.5	1018.8	0.6	- 7.2	- 3.4	-1.4	11.7	4	-19.4	6	0	27	- 6.7	78	31	- 12	9	14	0	191	102	5.5	NW	15.2	W	13	6	1	21	7.8	31
ROCKFORD	222	989.7	1016.3	- 1.7	-10.0	- 5.9	-1.7	9.4	4	-21.7	28+	0	28	- 8.3	82	38	1	15	12	0	384	254	5.1	WNW	12.5*	E	18	4	5	19	7.8	
SPRINGFIELD	179	993.9	1016.5	3.3	- 5.0	- 0.9	-0.4	18.9	13	-16.1	6	0	25	- 4.4	77	38	- 9	12	12	2	244	102	5.9	NW	19.2	W	13	5	6	17	7.3	45
INDIANA																																
EVANSVILLE	116	1001.2	1015.8	9.4	- 1.1	4.2	1.7	26.1	13	-12.8	7	0	15	0.0	76	167	86	57	12	2	51	51	4.4	NW	13.0	NW	13	5	9	14	7.0	46
FORT WAYNE	241	985.8	1018.3	1.1	- 7.8	- 3.3	-0.9	13.3	4	-18.3	2	0	27	- 6.1	80	59	3	15	13	2	312	152	5.6	ENE	18.8	W	13	3	5	20	8.0	41

See footnotes at end of table

CLIMATOLOGICAL DATA

METRIC UNITS

State and Station	Elevation (ground)	Pressure		Temperature											Average relative humidity	Precipitation							Wind					No. of days (sunrise to sunset)			Sky cover, tenths (sunrise to sunset)	Possible sunshine
												No. of days							No. of days		Snow, Sleet				Fastest mile (1.6 kilometers)							
		Station O	Sea level	Average maximum	Average minimum	Average	Departure from normal	Highest	Date	Lowest	Date	Max 32.2 °C or above	Min 0 °C or lower	Average dew point		Total	Departure from normal	Greatest in 24 hours	25 mm or more	With thunderstorms	Total	Maximum depth on ground	Average speed	Prevailing direction	Speed	Direction	Date	Clear, 0-3	Partly cloudy, 4-7	Cloudy, 8-10		
INDIANA	M.	Mb.	Mb	C.	C.	C.	C.	C.		C.				C.	%	Mm.	Mm.	Mm.			Mm	Mm	M.p.s.		M.p.s.							%
INDIANAPOLIS	242	986.8	1015.7	3.9	-5.6	-0.7	-0.2	19.4	4	-16.1	7	0	28	-4.4	78	58	-	20	10	1	356	152	4.3	NW	12.5*	WNW	13	3	4	21	8.2	28
SOUTH BEND	234	988.6	1017.9	0.0	-8.9	-4.4	-1.5	10.6	4	-18.9	7	0	28	-7.2	80	44	-4	11	14	0	442	203	5.8	E	14.8*	WNW	13	3	4	21	8.1	
IOWA																																
BURLINGTON	212	991.4	1018.8	0.6	-7.8	-3.6	-1.2	14.4	4	-21.7	28	0	27	-6.7	78	47	11	16	16	0	439	305	5.8	NW	17.9	NW	4	5	3	20	7.7	42
DES MOINES	289	986.6	1019.7	-2.8	-10.0	-6.4	-2.4	7.2	4	-26.7	28	0	28	-7.8	87	41	13	13	14	2	541	381	4.2	NW	15.6	NW	4	6	3	19	7.7	30
DUBUQUE	325	991.7		-3.3	-11.7	-7.6	-2.1	6.7	4	-23.9	6	0	28			61	25	32	12	0	610	559						4	5	19	7.9	
SIOUX CITY	334	975.9	1019.3	-2.2	-11.1	-6.7	-1.5	12.2	4+	-32.2	28	0	27	-8.9	84	60	38	22	14	2	541	457	5.1	NNW	20.1	N	4	6	3	19	7.2	43
WATERLOO	265	985.6	1018.2	-4.4	-12.2	-8.4	-2.8	5.6	4	-33.9	28	0	28	-9.4	87	44	21	16	13	1	617	457	5.0	NW	18.3*	NW	4	5	5	18	7.5	
KANSAS																																
CONCORDIA U	419	965.2		5.0	-5.0	0.0	-0.1	22.8	11	-20.0	28	0	22	-5.0	72	28	5	13	7	2	112	76	3.7	N#	11.6	NW	18	9	8	11	5.5	60
DODGE CITY	791	928.3	1015.6	10.0	-4.4	2.8	1.2	27.8	12+	-21.7	28	0	17	-5.0	64	8	-10	7	3	0	T	T	4.9	SSE	17.9	S	20	13	8	7	4.6	69
GOODLAND	1111	885.0	1012.6	8.9	-7.8	0.6	1.2	25.6	12+	-25.6	28	0	25	-7.8	63	4	-9	3	3	1	94	51	5.5	WSW	15.6*	NNE	4	8	10	10	5.7	
TOPEKA	267	988.1	1017.9	6.1	-5.0	0.4	-0.2	23.3	3	-20.0	28	0	23	-3.3	78	33	6	11	8	2	61	25	5.7	N	17.9	E	17	6	4	18	7.2	47
WICHITA	403	966.2	1016.3	8.3	-2.8	2.8	0.4	27.2	12	-16.1	28	0	19	-2.2	74	12	-11	10	5	1	T	T	5.4	N	19.2	S	17	7	10	11	6.0	54
KENTUCKY																																
COVINGTON	265	984.9	1017.9	6.1	-3.3	1.6	0.4	20.6	4	-16.7	7	0	21	-3.3	73	142	68	44	14	2	229	102	4.6	E	17.0*	NW	13	3	3	22	8.3	
LEXINGTON	298	980.7	1017.6	9.4	-1.7	3.8	1.7	21.7	13	-16.1	7	0	16	-0.6	78	184	97	78	11	2	20	T	5.5	SSW	20.6*	NW	23	6	5	17	7.4	
LOUISVILLE	144	997.8	1017.5	9.4	-1.7	3.9	1.8	25.0	13	-14.4	7	0	16	-0.6	75	167	84	58	11	3	64	25	4.3	ENE	14.3	WNW	13	3	9	16	7.6	28
LOUISIANA																																
ALEXANDRIA	28	1011.8	1016.6	21.7	8.3	14.9		27.8	27+	-2.2	7	0	1	10.0	77	58		20	8	4	0	0	3.5	SSW				7	3	18	6.9	
BATON ROUGE	20	1013.8	1017.0	23.3	10.6	17.0	4.3	29.4	27	-0.6	7	0	1	11.7	76	18	-94	6	6	6	0	0	4.7	S				7	4	17	6.8	
BURWOOD R	2		1017.9	20.6	12.8	16.7	2.1	25.6	28	6.1	7	0	0	15.0	90	10	-99	6	5	2	0	0	5.0	S								
LAKE CHARLES	4	1014.1	1016.1	21.7	11.1	16.2	2.9	26.1	26	0.6	7	0	0	12.8	84	20	-94	15	7	3	0	0	7.5	S	16.5*	SSW	8	7	5	16	6.6	
NEW ORLEANS	1	1014.9	1017.2	23.3	12.2	17.7	4.3	28.3	27+	2.2	7	0	0	13.9	81	26	-75	12	7	1	0	0	4.4	SSE	14.3*	SSW	23	6	8	14	6.5	
NEW ORLEANS AUDUBON	3	1012.0		22.8	12.8	17.8		28.3	27	2.8	7	0	0			74		43	8	4	0	0										
SHREVEPORT	77	1006.9	1016.4	20.0	7.8	14.0	3.8	27.8	13+	-1.1	7+	0	3	8.9	75	54	-50	15	9	4	0	0	4.7	S				8	7	13	5.8	52
MAINE																																
CARIBOU	190	995.6	1020.5	-7.2	-20.0	-13.7	-2.8	3.3	5	-35.6	2	0	28	-12.2	68	29	-22	8	13	0	414	254	4.9	NW	12.5*	NW	12+	7	8	13	6.1	
PORTLAND	19	1016.0	1020.2	-2.2	-13.3	-7.7	-2.6	5.6	5	-24.4	2	0	28	-9.4	55	57	-39	19	13	0	820	457	4.2	N	14.8	NE	14	8	4	16	6.6	45
MARYLAND																																
BALTIMORE	45	1014.2	1019.3	4.4	-4.4	0.2	-1.9	19.4	5	-15.0	11	0	23	-4.4	67	112	39	35	18	2	234	127	4.1	WNW	14.3	NW	24+	6	5	17	7.3	38
BALTIMORE U	4			4.4	-2.8	0.8	-2.4	16.7	5	-12.8	11	0	21			120	44	35	18													
FREDERICK	90			3.3	-5.6	-1.1	-2.0	17.2	5	-20.6	10	0	26			91	26	27	15		229	76										
MASSACHUSETTS																																
BLUE HILL OBS R	192	993.3	1017.7	0.0	-8.9	-4.3	-1.8	15.0	5	-21.1	11	0	27		72	125	30	31	13		765	457	6.6	WNW	20.1	NE	15					46
BOSTON	5	1013.8	1018.9	1.7	-7.2	-2.9	-2.0	16.1	5	-18.3	11	0	26	-7.2	62	106	21	28	14	1	729	279	6.3	N	17.9	ENE	14	9	2	17	6.6	55
NANTUCKET	13	1017.4	1018.0	2.8	-3.9	-0.6	-0.2	8.9	5	-10.0	7	0	24	-4.4	77	131	35	37	18	0	333	51	6.7	N	18.3	E	14	5	4	19	7.7	33
PITTSFIELD	357			-1.7	-12.8	-7.3	-1.9	11.7	5	-27.8	11	0	28			64	1	20	19		759	457										
WORCESTER	301	980.0	1018.4	-1.1	-10.0	-5.5	-1.6	13.3	5	-23.3	11	0	27	-8.9	63	122	48	25	14	0	1148	787	4.6	NE	13.9*	W	17+	6	5	17	6.9	
MICHIGAN																																
ALPENA	210	992.3		-5.0	-17.2	-11.1	-4.5	2.8	5	-31.1	10+	0	28			71	30	25	15	0	765	711	3.5	SE#	12.1	SE	13+	4	6	18	7.8	42
DETROIT	189	990.9	1018.8	-1.1	-8.3	-4.7	-2.1	10.6	5+	-18.9	2	0	28	-8.3	77	65	12	17	17	1	399	203	5.1	N	18.3	NW	14	2	6	20	8.1	28
DETROIT M WAYNE CO	193	993.4	1016.3	-1.1	-9.4	-5.4	-2.4	10.0	4	-20.0	2	0	28	-7.8	82	61	11	17	15	0	442	203	4.6	E				2	5	21	8.5	
DETROIT WILLOW RUN	217	988.5	1018.1	-0.6	-8.9	-4.8	-2.3	11.1	4	-19.4	2	0	28	-7.8	80	62	12	14	14	0	483	178	4.5	NNE	13.9*	WNW	14	2	6	20	8.2	
ESCANABA U	181	995.8		-5.0	-14.4	-9.6	-2.2	3.3	3	-26.7	7	0	28	-13.9	71	63	32	25	16	0	805	940	4.4		16.1	N	5	4	7	17	7.5	46
FLINT	233	989.8	1019.0	-2.2	-11.1	-6.6	-2.0	8.9	4	-22.2	2	0	28	-8.9	80	31	-14	10	12	0	409	279	4.6	E	12.1*	W	5	2	8	18	8.1	
GRAND RAPIDS	208	992.2	1018.7	-1.7	-9.4	-5.8	-1.6	11.7	4	-19.4	2	0	28	-8.9	79	43	-2	7	17	0	544	254	5.0	ESE	15.2	W	5	2	9	17	7.8	27
LANSING	260	984.7	1018.4	-2.2	-10.6	-6.3	-2.0	10.0	4	-21.1	2	0	28	-9.4	76	41	-9	10	13	0	429	305	6.3	WNW	25.0	W	14	5	6	17	7.3	40
MARQUETTE U	206	991.3		-6.1	-13.3	-9.7	-2.8	3.3	3	-23.3	7	0	28			63	21	19	18	0	912	1041	3.4	NW#	11.6	NW	5	1	4	23	8.8	33
MUSKEGON	191	994.3	1018.6	-2.8	-9.4	-6.2	-2.1	9.4	4	-21.1	2+	0	28	-8.9	80	48	3	10	16	0	1021	381	5.0	E	13.4*	E	18	1	7	20	8.3	
SAULT STE MARIE	220	995.9	1020.0	-7.8	-18.3	-13.1	-3.8	0.6	3	-30.6	1	0	28	-16.1	77	54	16	15	14	0	655	889	4.1	E	10.3*	WNW	28+	5	3	20	7.5	45
MINNESOTA																																
DULUTH	435	76.5	1020.4	-9.4	-17.8	-13.6	-2.1	2.8	3	-32.2	28	0	28	-16.7	74	46	22	14	14	0	465	610	5.3	E	14.3	NE	18	4	6	18	7.7	41
INTERNATIONAL FALLS	359	977.6	1022.0	-9.4	-22.2	-15.9	-2.1	1.7	2	-38.3	28	0	28	-15.0	68	32	14	12	9	0	348	584	3.2	W	11.2*	NNE	4	7	6	15	6.6	

See footnotes at end of table

CLIMATOLOGICAL DATA

METRIC UNITS

State and Station	Elevation (ground)	Pressure		Temperature											Average relative humidity	Precipitation							Wind					No. of days sunrise to sunset			Sky cover tenths (sunrise to sunset)	Possible sunshine
		Station	Sea level	Average maximum	Average minimum	Average	Departure from normal	Highest	Date	Lowest	Date	No. of days: Max 32.2 °C or above	No. of days: Min 0 C or lower	Average dew point		Total	Departure from normal	Greatest in 24 hours	No. of days: 25 mm or more	No. of days: With thunderstorms	Snow, Sleet: Total	Snow, Sleet: Maximum depth on ground	Average speed	Prevailing direction	Fastest mile (1.6 kilometers): Speed	Fastest mile: Direction	Fastest mile: Date	Clear, 0-3	Partly cloudy, 4-7	Cloudy, 8-10		
MINNESOTA	M	Mb.	Mb	C.	C.	C.	C	C		C				C.	%	Mm.	Mm	Mm			Mm	Mm	M p s		M p s							
MINNEAPOLIS	251	984.8	1020.5	-6.7	-15.6	-11.3	-2.3	4.4	4	-32.2	28	0	28	-14.4	75	53	33	12	14	0	673	660	5.2	NW	14.3*	WNW	4	3	8	17	7.5	42
ROCHESTER	395	968.8	1019.3	-6.7	-14.4	-10.4	-2.2	4.4	4+	-31.7	28	0	28	-12.2	83	34	14	10	11	0	485	330	4.3	NW				4	6	18	7.5	
ST CLOUD	315	980.4	1018.6	-6.7	-17.2	-11.8	-1.5	5.0	4	-33.9	28	0	28		75	36	15	12	11	0	508	533						6	6	16	7.4	
MISSISSIPPI																																
JACKSON	93	1004.7	1017.0	20.6	7.2	14.0	3.6	28.9	27	-3.3	7	0	3	8.3	72	70	-54	42	9	8	0	0	3.4	S	13.0	SW	23	9	4	15	6.3	51
MERIDIAN	89	1003.6	1017.7	21.1	6.1	13.7	3.4	28.9	13	-5.6	7	0	4	9.4	78	51	-78	35	8	5	0	0	3.9	S	11.2*	S	23	10	4	14	6.1	
VICKSBURG U	74	1007.3		20.0	8.9	14.3	3.3	27.2	27	-2.8	7	0	3			85	-50	30	9	6	0	0	4.4		15.2	SW	23	8	4	16	6.5	47
MISSOURI																																
COLUMBIA	237	987.0	1016.8	6.7	-3.3	1.7	0.7	25.0	4	-19.4	28	0	17	-2.8	77	51	5	19	12	3	168	102	5.4	NW	14.3	NW	13	8	2	18	6.7	44
KANSAS CITY	226	981.0	1017.2	6.1	-2.8	1.6	0.1	21.1	12	-18.9	28	0	16	-3.3	73	51	20	17	8	1	157	102	3.9	ENE	14.8	N	4	6	4	18	7.0	46
ST JOSEPH	247	981.6		2.8	-5.6	-1.4	-0.9	16.1	11	-21.7	28	0	25			41	14	13	8	3	269	178	5.5	NNW	14.3*	N	4	8	2	18	6.7	
ST LOUIS	163	996.4	1017.7	7.8	-2.2	2.6	0.8	28.3	13	-13.3	28	0	18	-3.3	69	64	12	29	11	2	91	51	5.1	NW	15.2	NW	13	4	7	17	7.4	44
ST LOUIS RFC	142			7.8	-1.1	3.3	0.9	28.3	13	-13.9	28	0	16			67	11	26	9		53	25										
SPRINGFIELD	386	967.9	1016.6	11.1	-1.7	4.7	1.9	27.2	12	-17.2	28	0	15	-1.1	71	50	-4	14	10	3	28	25	5.6	SSE	16.1	SW	13	8	5	15	6.2	50
MONTANA																																
BILLINGS	1087	888.6	1017.0	0.6	-9.4	-4.5	-1.0	16.7	3	-27.2	28	0	19	-9.4	74	32	17	7	15	0	297	102	5.0	WSW	14.3	NE	22	3	7	18	8.0	48
GLASGOW	694	942.8		-6.1	-15.6	-10.7	-0.4	11.1	2	-38.3	28	0	27	-13.3	83	11	1	4	14	0	122	76						3	9	16	7.4	
GREAT FALLS	1116	885.9	1017.3	-1.1	-11.1	-6.3	-2.0	16.1	3+	-30.0	26	0	22	-10.6	73	24	5	8	13	0	226	76	4.4	SW	19.2	SW	3	2	6	20	8.0	44
HAVRE	787	926.2		-2.8	-14.4	-8.7	0.0	19.4	2	-34.4	28	0	27			9	-2	4	7	0	135	102	3.4	E#	15.2	W	22+	6	8	14	6.9	53
HELENA	1187	870.3	1017.6	1.1	-9.4	-4.2	0.7	18.9	2	-26.1	26	0	26	-10.0	68	13	2	5	9	0	185	102	3.0	WNW	20.6	W	3	3	7	18	7.8	46
KALISPELL	904	909.2		1.1	-7.8	-3.5	2.1	13.3	2	-22.8	27+	0	28			23	-2	5	16	0	196	152	2.8					1	6	21	8.3	
MILES CITY	801			-1.1	-11.7	-6.3	0.2	18.3	3	-32.8	28	0	25	-10.6	75	10	1	4	6	0	114	102	4.2	NW	17.9*	NW	22+	4	7	17	7.5	
MISSOULA	972	899.4	1017.4	0.0	-7.8	-3.9	-0.1	9.4	3	-23.3	26	0	28	-7.8	76	34	11	10	13	0	264	102	2.9	ESE	15.2	W	3	1	7	20	8.3	43
NEBRASKA																																
GRAND ISLAND	561	949.0		2.2	-9.4	-3.6	-1.1	24.4	11	-27.2	28	0	26	-7.8	74	42	23	19	10	0	257	203	5.1	NNW				9	3	16	6.5	
LINCOLN U	351			1.1	-7.2	-2.9	-1.1	19.4	3	-24.4	28	0	25			33	5	15	11	0	109	76	4.4	NW#	15.2	E	17	8	3	17	6.6	46
NORFOLK	471	959.9		-1.1	-11.1	-6.2	-1.1	20.0	3	-32.2	28	0	28			43	24	17	11	0	368	330						8	3	17	7.0	
NORTH PLATTE	847	914.0	1014.6	5.6	-11.1	-2.8	-0.6	26.1	11	-30.0	28	0	28	-10.0	65	18	5	9	5	0	272	102	4.7	NNW	18.8	N	4	6	7	15	6.6	56
OMAHA	298	976.6	1018.6	0.6	-8.3	-3.9	-0.8	17.2	3	-25.6	28	0	25	-7.2	81	49	25	21	14	2	335	254	5.4	NNW	21.0	N	4	7	4	17	6.9	38
OMAHA N OMAHA AP	403	968.0		-0.6	-9.4	-5.1	-0.8	13.9	4+	-26.1	28	0	26			48	23	19	12	1	320	254						7	3	18	7.1	
SCOTTSBLUFF	1204	876.1	1014.5	6.1	-10.0	-2.1	-0.1	25.0	11	-33.3	28	0	26	-9.4	62	18	8	7	9	0	234	127	5.4	WNW	17.0*	WNW	4	7	6	15	7.0	
VALENTINE	789	923.1		1.7	-13.3	-5.7	-0.7	23.9	12	-32.8	28	0	27	-9.4	78	36	22	21	9	0	445	406	4.4	N#	18.8	N	4	5	10	13	7.0	58
NEVADA																																
ELKO	1547	841.2	1015.3	3.3	-7.2	-1.9	0.3	11.1	11	-19.4	1	0	28	-6.1	76	42	20	15	16	1	119	152	3.2	SW	11.6*	S	11	4	6	18	7.3	
ELY	1907	804.6	1014.5	4.4	-7.8	-1.4	1.6	15.0	3	-27.8	27	0	24	-6.7	73	38	21	13	14	0	150	127	4.3	S	16.1	S	11	6	1	21	7.4	37
LAS VEGAS	659	947.9	1013.8	16.1	3.9	9.9	0.9	21.1	5+	-7.2	28	0	3	-1.7	49	10	-1	4	5	1	T	0	4.6	SW	15.6*	NNW	16	9	7	12	5.6	66
RENO	1342	859.1	1015.6	7.2	-5.0	1.2	-1.1	14.4	6	-24.4	27	0	21	-3.9	74	94	68	39	12	0	338	102	2.6	S	14.8	S	15	2	11	15	7.3	50
WINNEMUCCA	1310	865.6		5.0	-6.7	-1.0	-1.2	10.6	14	-21.7	27	0	26	-3.9	82	55	31	15	8	0	213	178	2.6	S	13.0	S	22	4	7	17	7.6	37
NEW HAMPSHIRE																																
CONCORD	103	1008.7	1020.0	-1.1	-14.4	-7.9	-2.7	7.2	5	-28.3	12	0	28	-10.6	42	66	3	15	13	0	757	711	2.4	NW	8.9	E	14+	8	4	16	6.6	46
MT WASHINGTON OBS	1909	796.0		-10.0	-19.4	-14.8	-0.1	2.8	5	-33.9	7	0	28		72	161	29	38	16	0	1069	356	16.5	W	45.6	W	17	7	3	18	6.8	43
NEW JERSEY																																
ATLANTIC CITY	18	1016.9	1019.1	5.6	-2.8	1.2	-0.3	15.6	5	-15.6	11	0	22	-3.3	71	88	9	26	13	0	117	51	4.2	W	13.0*	W	24+	5	7	16	7.0	35
ATLANTIC CITY U	3			3.9	-1.1	1.4	-0.5	8.9	24+	-10.0	11	0	20			83	-	30	13				5.9		13.9*	NW	24+					
NEWARK	3	1018.0	1019.4	2.8	-4.4	-0.9	-1.3	12.8	5	-16.1	11	0	23	-6.1	61	108	37	25	15	0	333	76	4.2	NNE	10.7*	NNW	24	6	4	18	7.5	
TRENTON U	17	1010.9		3.3	-4.4	-0.6	-1.3	15.6	5	-17.8	11	0	24			104	39	24	16	0	284	102	3.8	N#	13.9	NW	24	5	7	16	7.2	46
NEW MEXICO																																
ALBUQUERQUE	1618	846.3	1013.8	13.3	-1.7	5.7	1.3	20.6	11	-12.8	28	0	21	-5.6	50	3	-7	1	3	0	T	0	3.4	N	17.0	W	25	12	10	6	4.2	79
CLAYTON	1515	841.5		12.8	-4.4	4.3	2.1	26.7	11	-20.0	28+	0	19			1	-9	1	1	0	15	25						14	7	7	4.0	
RATON	1944	801.2		11.7	-6.1	2.6	2.2	22.2	11	-19.4	28	0	26			6	-5	5	3	0	140	127						16	4	8	4.1	
ROSWELL	1101	890.3		20.0	-1.7	9.3	4.6	30.6	12	-9.4	28	0	19	-4.4	43	13	2	13	1	1	T	0	4.6		19.7	W	4	15	7	6	3.4	
SILVER CITY	1638	832.0		15.6	0.6	7.9		22.8	11+	-10.0	28	0	13			4		4	1	0	T	0						12	12	4	4.1	
NEW YORK																																
ALBANY	84	1016.1	1019.9	-1.7	-11.1	-6.4	-1.8	8.3	5	-27.8	11	0	26	-8.9	49	93	37	31	17	0	876	432	3.9	N	13.4	NW	6	4	5	19	7.7	38

See footnotes at end of table

CLIMATOLOGICAL DATA

METRIC UNITS

State and Station	Elevation (ground)	Pressure		Temperature											Average relative humidity	Precipitation							Wind					No. of days (sunrise to sunset)			Sky cover, tenths (sunrise to sunset)	Possible sunshine
												No. of days							No. of days		Snow, Sleet				Fastest mile (1.6 kilometers)							
		Station O	Sea level	Average maximum	Average minimum	Average	Departure from normal	Highest	Date	Lowest	Date	Max 32.2 °C or above	Min. 0 C or lower	Average dew point		Total	Departure from normal	Greatest in 24 hours	.25 mm. or more	With thunderstorms	Total	Maximum depth on ground	Average speed	Prevailing direction	Speed	Direction	Date	Clear, 0-3	Partly cloudy, 4-7	Cloudy, 8-10		
NEW YORK	M.	Mb.	Mb.	C.	C.	C.	C	C.		C.				C.	%	Mm.	Mm.	Mm.			Mm.	Mm.	M.p.s.		M.p.s.							%
BINGHAMTON	485	956.1	1017.8	-2.8	-11.7	-7.3	-2.4	8.3	5	-25.0	11	0	28	-8.3	56	58	2	21	17	0	536	178	4.5	SSE	22.4	SE	14	2	5	21	8.1	29
BUFFALO	215	989.1	1018.6	-1.7	-10.0	-5.9	-1.0	12.2	5	-22.2	11	0	28	-8.9	54	67	-2	27	22	1	716	305	5.3	WSW	13.9	W	22+	1	7	20	8.4	26
NEW YORK U	40	1006.5		3.3	-3.3	-0.1	-0.9	13.3	5	-15.6	11	0	22	-6.7	65	95	23	21	15		244	51	4.6	NE#	14.3	NE	24	9	3	16	6.6	41
NEW YORK	6	1017.3	1019.2	2.2	-3.9	-0.7	-1.6	11.7	5	-15.6	11	0	24	-5.6	66	104	25	22	14	0	287	76	6.6	NE	14.8	NW	6	6	4	18	7.3	
ROCHESTER	166	998.9	1019.2	-1.1	-10.6	-5.9	-1.9	11.1	5	-23.3	11	0	28	-8.3	59	73	9	24	13	1	716	279	5.6	WSW	18.8	NE	24	0	7	21	8.6	36
SCHENECTADY	66			-0.6	-10.6	-5.6	0.0	7.8	5	-26.1	11	0	26			74	17	22	13		831	508						8	9	11	5.6	
SYRACUSE	129	996.2	1019.4	-0.6	-10.6	-5.8	-1.6	12.8	5	-24.4	2	0	28	-8.9	42	75	-4	24	18	1	635	254	4.8	WSW	16.1	NW	5	3	3	22	8.3	50
NORTH CAROLINA																																
ASHEVILLE U	671	936.8		13.9	1.7	7.7	2.9	22.2	4	-11.1	7	0	9			91	14	30	12	2	T	T	4.3	N#	13.0	S	23+	10	4	14	6.0	56
CAPE HATTERAS R	2	1017.2	1017.9	13.3	3.9	8.7	0.7	22.8	23	-5.0	1	0	10	6.1	83	42	-58	13	10	2	T	T	5.1	N	21.5	SW	22		7	15	7.0	62
CHARLOTTE	224	989.0	1017.9	13.9	2.2	8.2	1.1	25.6	28	-6.7	7	0	11	1.1	67	108	18	39	12	1	T	T	2.6	SSW	10.7		24	5	8	15	6.6	49
GREENSBORO	272	985.4	1018.3	11.7	0.0	5.8	0.8	23.9	28	-8.9	11	0	17	0.0	73	120	37	34	13	2	10	T	3.9	SW	11.2	SW	24	6	3		6.9	43
RALEIGH	132	1003.8	1018.1	12.2	1.1	6.6	0.5	26.1	28	-8.9	7	0	17	1.1	71	70	-12	22	11	1	10	T	3.8	SSW	11.2*	SSW	24	5	8	15	6.9	47
WILMINGTON	9	1016.0	1019.0	17.2	4.4	10.9	1.6	29.4	28	-5.6	11	0	8	5.6	73	58	-29	33	10	1	25	T	4.4	N	14.8	SW	9	7	8	13	6.5	58
WINSTON SALEM	295	982.1	1018.3	11.7	0.6	5.8	0.4	23.9	28	-8.3	11+	0	16	-1.1	67	117	29	28	13	2	13	25	4.3	NE	13.4*	NE	2+	6	5	17	6.6	
NORTH DAKOTA																																
BISMARCK	502	956.7	1019.6	-6.7	-17.2	-12.1	-1.2	11.1	2	-36.7	28	0	28	-15.0	80	8	-3	4	10	0	122	102	3.9	SE	17.0	NW	4	5	3	20	8.0	54
DEVILS LAKE U	448	964.6		-11.1	-21.7	-16.1	-3.1	3.9	2	-36.1	28	0	28			14	5	6	9	0	152	330	3.5	N#	15.2	NW	4	4	7	17	7.6	60
FARGO	274	984.8	1021.8	-9.4	-20.0	-14.7	-2.8	4.4	2	-36.7	28	0	28	-17.8	74	25	12	9	7	0	257	254	4.6	NNW	24.6	NW	4	3	4	21	8.1	35
WILLISTON U	579	947.2		-6.1	-19.4	-12.9	-2.6	11.1	2	-40.6	28	0	28			24	12	11	12	0	241	178	3.7	NE#	20.1	NW	4	6	4	18	7.4	43
OHIO																																
AKRON	369	979.2	1018.5	1.7	-7.8	-3.0	-0.6	14.4	4	-18.3	2	0	27	-5.6	80	55	-4	18	17	0	323	127	5.9	SW	22.8*	WSW	14	2	2	24	8.7	
CINCINNATI OBS	232			6.1	-3.3	1.3	-0.4	21.7	4	-15.6	7+	0	23			144	73	45	11	2	203	76	3.2	NE	12.1	W	13					33
CINCINNATI U	169	994.3		7.2	-2.2	2.5	0.3	22.2	4	-15.0	7	0	16			141	76	42	11		163											
CLEVELAND	237	989.1	1018.1	0.6	-7.2	-3.3	-1.2	14.4	4	-18.3	7+	0	27	-7.2	70	47	-12	20	17	2	411	178	5.7	WSW	16.1	N	24	1	3	24	8.9	33
COLUMBUS	247	987.4	1018.6	2.8	-6.1	-1.8	-1.8	16.7	26	-17.2	10	0	26	-5.6	68	88	29	30	14	0	224	102	4.2	WNW	17.0	W	14	3	2	23	8.4	26
COLUMBUS U	221			3.3	-5.0	-0.7	-1.2	17.8	4	-15.6	7	0	24			92	37	33	13		267	102										
DAYTON	305	980.3	1017.9	2.8	-6.1	-1.7	-1.1	18.3	4	-17.8	2	0	26	-5.0	74	61	3	16	13	0	307	102	5.0	WNW	17.4	W	13	2	4	22	8.4	30
MANSFIELD	395			1.1	-8.3	-3.4	-1.1	13.9	4	-18.9	7+	0	27			39	-27	10	14	1	376	127						2	4	22	8.5	
SANDUSKY U	184	995.0		0.6	-6.1	-2.7	-1.3	13.9	4	-16.1	7	0	27			53	-1	20	15		389	127	4.7		19.7	NE	24	0	8	20	8.6	35
TOLEDO	206	992.5	1018.8	0.0	-7.8	-4.0	-1.4	11.7	4	-19.4	2	0	28	-7.8	75	55	7	15	13	0	361	178	5.0	ENE	16.1	W	14	2	4	22	8.3	30
YOUNGSTOWN	359	973.8	1018.0	0.6	-8.3	-3.8	-1.9	13.3	4	-20.0	2	0	27	-6.7	78	53	-11	19	17	0	406	127	5.4	SE	15.6*	W	14	2	1	25	9.0	
OKLAHOMA																																
OKLAHOMA CITY	390	971.8	1016.3	13.9	0.6	7.3	2.4	28.9	12	-13.9	28	0	15	0.0	65	26	-9	13	6	3	20	25	6.4	SSE	17.0	NE	27	11	7	10	5.1	68
TULSA	198	991.4	1016.4	12.2	-0.6	5.8	0.8	30.0	12	-14.4	28	0	16	-2.2	62	37	-8	16	6	2	46	51	5.9	N	13.0*	N	5	10	4	14	5.9	54
OREGON																																
ASTORIA	2	1011.9	1012.4	10.6	2.8	6.5	0.5	16.7	15	-7.2	26	0	8	3.3	82	142	-109	41	19	0	102	102	4.3	ESE	13.9*	SSW	6	5	2	21	7.7	
BURNS U	1265	868.6		3.9	-6.7	-1.5	-0.2	8.3	5+	-20.0	27	0	28	-5.0	78	54	22	15	14	0	239	102						3	9	16	7.2	
EUGENE	110	999.7		10.0	1.7	5.7	-0.2	20.6	2	-7.8	26	0	10			115	-11	24	14	0	T	T	3.2		13.9*	S	16	5	2	21	8.1	
MEACHAM	1234			1.7	-5.0	-1.8	-0.2	9.4	3	-20.0	27	0	27			46	-56	16	19	0	401	254						3	6	19	8.2	
MEDFORD	396	965.5	1013.9	11.1	-1.7	4.8	-0.5	15.0	6+	-12.2	26	0	17	0.0	75	27	-34	7	12	1	T	T	2.2	SE	13.4*	SSE	7	3	5	20	7.6	
PENDLETON	452	959.7	1014.3	8.9	0.0	4.3	1.6	17.8	2	-11.1	26	0	11	-1.7	69	18	-12	5	12	0	33	T	3.5	NW	13.0*	W	22	4	6	18	7.8	
PORTLAND	6	1007.5	1013.2	10.0	2.2	6.1	0.6	16.1	1	-6.7	27+	0	11	1.1	74	87	-20	15	15	1	97	76	4.3	ESE	21.0	SE	6	2	5	21	8.1	36
PORTLAND U	9			10.0	3.3	6.7	0.2	16.7	1	-6.1	26	0	6			108	-16	22	16		155	102										
ROSEBURG	154	994.6		11.1	1.7	6.2	-0.1	17.8	2	-8.9	27+	0	9			85	-22	20	15	0	T	T	1.8	N#	10.7	S	13+	1	4	23	8.4	29
SALEM	59	1005.4	1013.1	9.4	0.0	4.9	-0.9	16.1	15	-12.2	26	0	14	2.2	84	101	-34	18	16	1	213	127	3.4	S	15.6*	SSW	7	4	2	22	8.0	
SEXTON SUMMIT R	1169	878.1		5.0	-0.6	2.2	0.2	18.9	1	-12.8	26	0	17			152	47	42	16	0	221	76	5.9	S				4	2	22	7.8	
PACIFIC AREA																																
CANTON ISLAND	2	1008.9	1009.3	31.1	25.6	28.1	-0.2	31.7	2+	24.4	28+	0	0	21.7	72	4	-50	2	5	0	0	0	5.4	ENE	10.3*	ENE	28+	10	13	5	4.5	
ENIWETOK	4	1009.8		30.0	25.6	28.0	0.8	31.1	25+	25.0	23+	0	0	21.7	71	20	-27	11	9	0	0	0	8.4									
JOHNSTON	2	1013.9	1014.5	26.7	22.2	24.5	-0.5	29.4	1	17.8	21+	0	0	19.4	72	99	60	57	10	0	0	0	5.9	E	15.2	E	13	14	13	1	3.8	86
KOROR R	29	1005.5	1009.3	29.4	24.4	26.9	0.1	31.1	7+	22.8	22+	0	0	23.9	87	231	50	56	25	2	0	0	3.5	NE	11.2	NE	8	0	0	28	10.0	37
KWAJALEIN	2	1008.4	1009.3	30.6	25.0	27.6	0.9	31.7	17	23.3	22+	0	0	22.8	76	123	68	67	13	0	0	0	6.5	ENE	10.7*	ENE	27+	5	13	10	6.1	
MAJURO	3	1009.2	1009.5	30.0	25.0	27.6	0.7	31.1	24	22.8	4	0	0	23.3	79	131	-86	29	20	0	0	0	6.0	ENE	15.6	E	16	2	13	13	7.4	70
PONAPE R	37	1004.4	1008.9	30.0	24.4	27.2	0.2	31.7	23	22.2	13	0	0	23.3	81	407	160	123	21	1	0	0	3.8	NNE	10.3	E	17	0	2	26	9.6	44
TAGUAC GUAM R	110			27.8	22.8	25.3	-0.4	29.4	5	18.9	27	0	0			233	144	139	23	0	0	0	4.3	NE#	16.1	NE	17					52
TRUK MOEN ISLAND	2	1008.5	1008.8	29.4	25.0	27.3	0.2	30.6	24+	21.7	19	0	0	23.3	79	250	90	114	13	0	0	0	3.5	NNE	13.9	S	18	0	5	23	9.0	51

See footnotes at end of table

CLIMATOLOGICAL DATA

METRIC UNITS

State and Station	Elevation (ground)	Pressure		Temperature											Average relative humidity	Precipitation							Wind					No. of days (sunrise to sunset)			Sky cover, tenths (sunrise to sunset)	Possible sunshine
												No. of days							No of days		Snow, Sleet				Fastest mile (1.6 kilometers)							
		Station ⊙	Sea level	Average maximum	Average minimum	Average	Departure from normal	Highest	Date	Lowest	Date	Max 32.2 °C or above	Min. 0 C or lower	Average dew point		Total	Departure from normal	Greatest in 24 hours	25 mm or more	With thunderstorms	Total	Maximum depth on ground	Average speed	Prevailing direction	Speed	Direction	Date	Clear 0-3	Partly cloudy, 4-7	Cloudy, 8-10		
PACIFIC AREA	M.	Mb.	Mb.	C.	C.	C.	C.	C.		C.				C.	%	Mm.	Mm.	Mm.			Mm	Mm	M p.s.		M p.s							%
WAKE ISLAND	3	1014.3	1014.7	27.2	22.2	24.8	-0.3	29.4	21	19.4	23+	0	0	18.9	71	41	7	34	7	0	0	0	5.8	ENE	14.8*	NE	11	9	13	6	5.0	
YAP R	17	1007.3	1009.3	30.0	24.4	27.1	0.2	32.2	3	22.2	10	1	0	24.4	84	339	221	151	19	0	0	0	5.1	NE	14.8	NE	9	0	0	28	10.0	59
PENNSYLVANIA																																
ALLENTOWN	115	1004.5	1019.4	1.7	- 7.2	- 2.8	-1.2	10.6	4	-21.1	11	0	25	- 6.1	73	117	50	29	15	0	373	127	4.2	NE	14.8*	NW	24	4	8	16	7.4	
ERIE	223	990.9	1018.1	0.0	- 8.3	- 4.2	-1.1	15.0	4	-19.4	11	0	26	- 7.2	75	47	- 12	12	15	1	366	178	5.7	NE	15.6*	ENE	24	0	5	23	8.9	
HARRISBURG	102	1004.7	1019.2	1.7	- 6.1	- 2.1	-2.4	11.7	4	-17.8	11	0	26	- 6.7	65	110	51	26	17	0	404	127	3.5	ESE	14.3	W	20	5	4	19	7.6	39
PHILADELPHIA	2	1014.1	1018.9	2.8	- 5.0	- 0.9	-1.6	12.2	5	-16.1	11	0	24	- 5.6	66	89	18	22	14	0	318	102	4.2	N	12.5	NW	24+	5	6	17	7.5	38
PHILADELPHIA U	11			4.4	- 2.8	0.7	-1.1	17.2	5	-15.6	11	0	21			0		0														
PITTSBURGH	351	986.9	1018.2	2.2	- 6.7	- 2.1	-0.5	15.6	26	-20.0	11	0	26	- 6.1	71	90	35	40	14	0	218	76	4.7	WNW	20.6	W	14	2	3	23	8.7	31
PITTSBURGH U	228			5.6	- 3.9	0.6	-0.2	17.8	26	-15.0	11+	0	23			94	36	47	14		224											19
READING U	81	1006.5	1016.2	2.8	- 4.4	- 0.7	-1.4	14.4	4	-15.6	11	0	24			109	42	25	14	0	343	178	4.3	N	17.0	NW	24	6	7	15	7.1	42
SCRANTON	287	983.5	1019.4	0.0	- 8.3	- 4.1	-1.5	12.8	5	-23.3	11	0	27	- 7.8	66	77	27	41	14	0	284	76	3.4	NNW	13.0	NW	6	2	9	17	7.7	38
WILLIAMSPORT	161	999.8	1019.7	1.7	- 7.2	- 2.9	-1.3	10.0	4	-19.4	11	0	26	- 7.2	67	103	39	39	18	0	500	127	3.6	E	12.1*	SSE	14	3	7	18	7.7	
RHODE ISLAND																																
BLOCK ISLAND	34	1013.5	1018.0	1.1	- 5.0	- 1.9	-1.6	8.9	5	-15.6	11	0	25			164	80	51	15	0	305	76						7	3	18	7.0	
PROVIDENCE	17	1012.6	1019.1	1.7	- 7.8	- 3.0	-1.7	13.9	5	-18.9	11	0	26	- 7.2	62	131	52	39	15	0	785	457	4.6	N	13.4*	N	24	8	2	18	6.8	50
SOUTH CAROLINA																																
CHARLESTON	12	1017.8	1018.2	20.6	6.1	13.4	2.6	30.0	28	- 3.3	11	0	4	7.2	71	33	- 51	15	5	3	0	0	4.0	SSW	16.1Y	N	10	7	8	13	5.8	65
CHARLESTON U	3			18.9	8.9	13.7	2.4	28.3	27	- 1.7	11	0	2			20	- 58	15	6		0	0	4.6		13.4	NE	25+					
COLUMBIA	66	1005.1	1018.3	18.3	4.4	11.4	2.3	28.9	28	- 4.4	7	0	5	4.4	67	132	37	94	11	4	0	0	2.9	SW	11.2*	NW	22	9	7	12	6.0	53
FLORENCE	45	1011.9	1017.8	17.2	3.9	10.7	1.3	28.9	28	- 5.0	11	0	7	3.3	67	105	25	73	10	4	T	T	3.7	S	9.4*	SW	28+	9	5	14	6.3	
GREENVILLE	308	979.4	1017.4	15.6	3.3	9.4	1.7	24.4	14	- 6.7	7	0	5	2.2	68	120	14	38	10	3	T	T	3.7	ENE	11.2	SW	23	7	8	13	6.1	59
SPARTANBURG	244	987.2	1017.8	15.0	2.2	8.7	1.5	25.0	27	- 6.7	7	0	10	1.7	68	123	22	45	9	1	T	T	3.5	SW	17.9*	SSW	23	7	9	12	6.0	
SOUTH DAKOTA																																
HURON	391	970.5	1020.5	- 5.6	-16.7	-11.1	-2.8	15.0	3	-39.4	28	0	28	-12.2	89	98	83	55	11	0	1013	711	5.9	NNW	21.9	NW	4	3	4	21	8.5	45
RAPID CITY	965	899.4	1016.1	1.7	-10.0	- 4.3	0.1	21.7	10	-27.8	28	0	23	-10.0	72	25	13	10	10	0	175	102	5.1	NNW	21.9	N	4	4	6	18	7.3	53
SIOUX FALLS	433	965.1	1016.9	- 3.9	-12.8	- 8.2	-1.1	13.9	3	-35.0	28	0	28	-12.8	71	103	79	51	13	1	1229	787	5.3	NE	15.6*	NW	4	3	8	17	7.9	
TENNESSEE																																
BRISTOL	459	961.4	1016.9	12.8	1.1	6.9	2.7	20.6	23	-11.7	7	0	11	1.1	69	137	46	34	13	3	T	T	3.2	NE	14.3*	WNW	28	8	4	16	6.8	
CHATTANOOGA	204	989.5	1017.7	16.1	3.3	9.7	3.1	25.6	27	- 8.3	7	0	8	3.3	71	241	104	95	10	5	T	T	3.8	S	16.1	W	9	9	6	13	6.2	57
KNOXVILLE	290	981.5	1017.5	15.0	2.2	8.4	2.6	23.3	13	-10.6	7	0	8	1.1	65	202	80	62	12	3	T	T	4.2	NE	19.2	SW	9	5	6	17	7.0	50
MEMPHIS	80	1001.8	1016.9	16.1	4.4	10.2	3.2	27.2	13	- 6.1	6		5	4.4	72	107	- 12	34	10	7	T	T	3.8	SSW	15.6	SE	18	12	2	14	5.6	55
MEMPHIS U	83			14.4	4.4	9.5	2.4	25.	13	- 5.6	6	0	5			113	- 3	35	10		T	T										
NASHVILLE	176	996.7	1017.0	14.4	1.1	7.9	2.3	28.9	13	-11.	7	0	12	3.3	77	230	116	102	12	6	28	25	4.1	S	23.2	NW	27	7	6	15	6.5	48
OAK RIDGE	276	982.9		13.9	1.1	7.6	2.2	23.3	13	-12.2	7	0	12			229	82	64	13	5	5	T	1.9		16.5Y		23+	10	1	17	6.4	
TEXAS																																
ABILENE	536	952.6	1014.3	20.6	4.4	12.5	3.4	30.6	12+	-10.6	28	0	8	- 0.6	49	1	- 27	1	2	1	T	T	4.9	SSW	16.1	SE	20	15	5	8	4.1	75
AMARILLO	1099	885.8	1010.8	16.1	- 1.1	7.5	3.2	30.0	12	-16.1	28	0	12	- 5.0	49	10	- 6	10	2	0	3	T	7.1	SW	21.0	S	25	17	7	4	3.3	86
AUSTIN	182	992.9	1015.3	22.8	8.9	15.8	3.7	30.6	9	- 3.3	28	0	2	7.8	64	16	- 50	8	6	4	T	0	4.6	S	13.4	N	28	12	8	8	5.1	58
BROWNSVILLE	5	1011.3	1014.1	26.7	16.1	21.4	3.6	33.9	9	3.9	28	1	0	17.2	81	1	- 36	1	3	0	0	0	5.8	SSE	14.8	S	21	8	8	12	6.0	49
CORPUS CHRISTI	13	1013.2	1014.7	25.6	13.9	19.8	4.0	33.9	9	0.0	28	1	1	14.4	76	2	- 42	1	3	0	0	0	6.3	SSE	15.6	S	17	10	6	12	5.6	62
DALLAS	147	996.4	1015.6	19.4	6.1	12.6	2.8	30.0	8	- 6.7	28	0	4	4.4	63	77	12	29	5	4	T	T	5.5	S	16.1	N	5	15	3	10	4.6	63
DEL RIO U	292			25.0	10.0	17.4	3.5	32.2	9	- 0.6	28	1	1			7	- 20	4	3	1	0	0										
EL PASO	1194	884.6	1011.2	19.4	4.4	11.9	2.2	26.1	12+	- 1.1	1	0	4	- 3.3	39	15	4	14	3	0	0	0	3.8	WSW	21.0	W	25	14	10	4	3.7	87
FORT WORTH	166	994.2	1015.5	18.9	4.4	11.8	2.3	29.4	8	- 7.2	28	0	4	4.4	66	51	- 6	18	6	4	T	T	6.5	S	22.8*	N	5	16	2	10	4.3	
GALVESTON U	2			19.4	14.4	16.7	2.9	23.9	23	3.3	28	0	0			20	- 53	11	11		0	0	5.9		17.9	SE	15					57
GALVESTON	2	1013.5	1016.0	19.4	13.9	16.6	2.9	24.4	23	2.8	28	0	0	13.3	83	21	- 65	13	9	1	0	0	4.9	SE				9	6	13	6.0	
HOUSTON U	12			23.3	13.9	18.8	4.9	30.0	9	2.2	28	0	0			20	- 62	7	9		0	0										
HOUSTON	15	1013.1	1016.2	23.9	11.7	17.7	3.6	30.6	9	0.6	28	0	0	13.3	82	18	- 69	6	10	0	0	0	5.3	SSE				6	7	15	6.5	54
LAREDO	152	998.0	1013.5	28.3	13.9	20.9	4.4	35.6	9	3.9	28	5	0	9.4	57	T	- 23	T	0	0	0	0	4.6	SE	9.4*	NNW	28+	15	6	7	4.1	
LUBBOCK	988	901.6	1012.9	18.9	- 0.6	9.1	2.9	30.0	12	-13.9	28	0	14	- 2.8	49	1	- 14	1	1	0	T	T	7.5	W	20.6*	SW	25	16	8	4	3.4	
MIDLAND	870	913.5	1010.8	20.6	3.9	12.3	3.2	30.0	12	-10.0	28	0	6	- 2.8	41	1	- 14	1	1	0	T	0	4.9	S	15.6*	WSW	8	14	8	6	3.8	
PORT ARTHUR	5	1014.8	1015.7	23.3	10.6	16.9	3.9	28.9	9	2.2	7	0	0	13.3	84	18	- 95	9	10	1	0	0	5.0	S	15.6	S	26+	7	4	17	6.7	47
SAN ANGELO	580	946.4	1011.8	22.8	3.9	13.2	3.2	30.0	12+	- 8.9	28	0	8	0.0	47	3	- 20	2	2	0	T	T	4.6	S	12.5*	W	8	16	6	6	3.5	
SAN ANTONIO	241	989.3	1014.6	23.9	10.6	17.1	4.1	32.8	9	0.0	28	1	1	8.3	63	23	- 19	17	4	1	0	0	4.5	NE	13.9	N	28	14	6	8	4.5	58
VICTORIA	32	1010.4		23.9	11.7	17.7	3.2	32.2	9	- 0.6	28	1	1			8	- 52	6	4	1	0	0	5.5		20.6Y	N	28	9	8	11	5.6	
WACO	152	996.6	1015.5	21.1	7.2	13.9	3.1	31.1	8	- 4.4	28	0	3	6.7	66	36	- 26	15	4	3	T	T	6.8	S	17.4*	N	5	14	2	12	5.1	

See footnotes at end of table

CLIMATOLOGICAL DATA

METRIC UNITS

State and Station	Elevation (ground)	Pressure		Temperature											Average relative humidity	Precipitation							Wind					No of days (sunrise to sunset)			Sky cover, tenths (sunrise to sunset)	Possible sunshine
												No. of days							No. of days		Snow, Sleet				Fastest mile (1.6 kilometers)							
		Station Ø	Sea level	Average maximum	Average minimum	Average	Departure from normal	Highest	Date	Lowest	Date	Max 32.2 °C or above	Min 0 C or lower	Average dew point		Total	Departure from normal	Greatest in 24 hours	.25 mm. or more	With thunderstorms	Total	Maximum depth on ground	Average speed	Prevailing direction	Speed	Direction	Date	Clear, 0-3	Partly cloudy, 4-7	Cloudy, 8-10		
TEXAS	M.	Mb.	Mb.	C.	C.	C.	C.	C.		C.				C.	%	Mm.	Mm.	Mm.			Mm.	Mm.	M.p.s.		M.p.s							%
WICHITA FALLS	303	977.3	1014.7	18.9	2.2	10.3	2.6	31.1	11	-10.6	28	0	11	- 0.6	54	7	- 28	5	3	1	20	25	5.1	NNE	14.3*	NNE	5	16	2	10	4.1	
UTAH																																
MILFORD	1533	840.8		6.1	- 6.1	- 0.1	1.2	15.6	10	-25.6	27	0	20			38	20	14	10	0	244	127						6	6	16	6.7	
SALT LAKE CITY	1286	865.2	1016.7	3.9	- 4.4	- 0.3	-0.9	17.8	11	-18.9	27	0	19	- 3.3	83	33	25	15	12	0	124	51						3	7	18	7.7	
WENDOVER	1291	867.9		3.9	- 3.9	- 0.2	-0.6	15.0	11	-13.9	27	0	23			36	6	11	13	2	257	102	4.4	S	13.4	S	20	0	3	25	9.2	28
VERMONT																																
BURLINGTON	101	1004.5	1020.0	- 4.4	-16.1	-10.2	-3.2	8.3	5	-31.7	2	0	26	-10.0	24	35	- 11	13	12	0	617	432	3.8	S	13.4	S	5	7	5	16	6.9	41
VIRGINIA																																
LYNCHBURG	289	992.3		8.9	- 1.1	3.8	0.0	22.2	28	-11.7	7	0	20			73	6	18	13	0	51	25	3.6		11.6	NW	24	6	5	17	6.9	39
NORFOLK	8	1017.1	1018.6	10.0	0.0	5.0	-0.3	24.4	28	- 7.2	11	0	17	0.6	76	64	- 18	12	13	2	20	25	4.8	N	13.9	S	24	4	8	16	7.2	39
RICHMOND	49	1012.3	1018.8	9.4	- 1.1	4.3	-0.1	22.2	24	-10.0	11	0	20	- 0.6	78	76	3	21	14	0	30	25	3.4	NNE	11.2	NW	24	5	4	19	7.6	37
ROANOKE	358	974.9	1018.3	10.0	- 0.6	4.6	0.6	22.8	4	-11.7	7	0	17	- 2.2	64	82	9	19	12	0	84	51	4.1	SE	17.9*	WSW	22	8	4	16	6.5	
WASHINGTON																																
OLYMPIA	58	1006.8	1013.6	10.0	0.0	4.9	-0.1	21.1	2	-11.1	27	0	13	1.7	80	94	- 74	18	17	0	191	152	2.9	SW	11.2*	WSW	22	4	6	18	7.6	
SEATTLE TACOMA	122	998.6	1012.9	9.4	2.8	6.2	1.3	17.8	2	- 7.8	26	0	8	1.1	74	58	- 50	11	14	0	178	178	3.9	SE	13.4*	S	3	4	5	19	7.5	
SEATTLE	4		1013.0											2.2	74	0		0					2.0	SSE								
SEATTLE U	4			10.0	4.4	7.4	1.0	17.2	1	- 4.4	26	0	6			49	- 50	13	15		152	152			18.8	SW	3					42
SPOKANE	718	944.8	1014.7	3.9	- 3.3	0.2	1.3	13.3	2	-16.1	26	0	19	- 5.0	71	44	- 4	11	11	0	114	76	3.8	NE	11.6	SW	14+	2	5	21	8.4	44
STAMPEDE PASS R	1206	874.0		0.6	- 3.9	- 1.8	1.2	13.9	1	-14.4	24	0	25			76	-182	21	16	0	622	1981						1	6	21	8.5	
TATOOSH ISLAND	31	1009.1	1012.7	8.3	4.4	6.6	0.4	11.7	7	- 1.7	28+	0	5	2.2	76	107	-114	21	13	0	142	152	7.7	ENE	21.9	S	6	7	1	20	7.3	40
WALLA WALLA U	289	978.0		7.8	0.0	4.1	0.5	16.1	2	-10.6	26+	0	12			23	- 15	6	14	0	66	51	2.1	E#	9.8	NW	21	4	6	18	7.6	37
YAKIMA	323	975.3	1015.1	7.2	- 2.8	2.0	0.9	16.1	3	-13.3	27	0	21	- 2.8	74	38	15	11	11	0	91	51	2.7	WNW	12.5*	WNW	22+	4	6	18	7.8	
WEST INDIES																																
SAN JUAN P.R. U	14			26.7	21.1	23.8	-0.1	31.1	11	18.3	15	0	0			81	12	32	14		0	0										
SAN JUAN P.R.	5	1014.8	1018.1	27.2	19.4	23.4	-0.1	29.4	11+	16.7	17+	0	0	18.9	77	68	- 6	34	15		0	0	3.4	ENE	12.1	N	14	5	20	3	5.2	59
SWAN ISLAND	9	1013.7		28.3	23.9	26.2	0.4	29.4	28+	21.7	8	0	0			8	- 21	3	5		0	0						8	18	2	4.4	
WEST VIRGINIA																																
CHARLESTON	286	981.1	1017.3	10.0	- 0.6	4.6	1.5	21.7	4	-17.2	7	0	14	- 1.1	69	136	47	53	16	1	122	76	3.2	WNW	12.1*	SW	19	3	4	21	8.3	
HUNTINGTON U	252	986.7	1017.7	9.4	- 1.1	4.0	0.3	22.8	4	-16.1	7	0	19	- 1.7	71	144	65	53	15	2	69	25	3.0	WNW	10.3	WSW	24+	5	3	20	7.9	
PARKERSBURG U	189			7.2	- 2.8	2.2	0.3	21.1	4	-16.7	7	0	21			129	57	38	13	0	178	102	3.3		13.9	W	14					23
WISCONSIN																																
GREEN BAY	208	995.5	1019.6	- 5.0	-15.0	-10.1	-2.1	2.8	4	-27.2	28	0	28	-11.7	86	51	24	15	14	0	523	483	4.2	NE	14.3	W	5	7	5	16	7.1	36
LA CROSSE	199	993.5		- 3.9	-12.8	- 8.4	-1.4	8.3	4	-27.2	28	0	28	-11.7	77	46	20	14	15	0	658	457	4.6	NW	15.6*	W	4	3	8	17	7.6	
MADISON	262	981.4	1018.8	- 3.9	-12.8	- 8.3	-1.7	7.8	4	-28.9	28	0	28	-10.6	79	35	7	11	14	0	409	381	4.8	WNW	13.4	NW	5	2	8	18	8.1	33
MILWAUKEE	204	993.1	1019.3	- 2.2	-10.0	- 6.1	-0.7	8.9	4	-21.1	28	0	28	- 8.9	80	52	16	21	13	1	564	406	4.9	WNW	14.8	E	18	3	2	23	8.5	23
WYOMING																																
CASPER	1621	832.4	1014.2	2.2	- 8.3	- 3.0	0.2	18.3	11	-25.6	23	0	22	- 8.3	67	11	- 4	4	13	0	246	102	5.9	SW	16.1*	SSW	12	6	6	16	6.9	
CHEYENNE	1867	807.3	1014.5	3.9	- 8.9	- 2.7	-0.3	21.7	11	-31.1	27	0	24	-11.1	57	14	0	5	10	0	274	152	6.0	WNW	20.1	W	8	8	6	14	6.3	56
LANDER	1696	830.3		1.7	- 9.4	- 4.1	0.3	13.3	11	-26.1	27	0	26	-10.6	63	10	- 8	3	11	0	160	305	2.9	NE#	18.8	SW	10	5	12	11	5.8	59
SHERIDAN	1202	881.8	1012.6	1.1	-10.0	- 4.5	0.1	15.6	12	-30.0	28	0	26	- 8.9	73	11	- 8	6	6	0	117	76	3.0	NW	16.5	NW	22+	5	5	18	7.5	48

Data from airport unless otherwise specified. U indicates Urban, R indicates Rural, sites.

* Data entered in column "Fastest Mile" is the fastest mile observed. This station is not equipped with automatic wind recording instrument.

A Maximum hourly average.

+ And also on an earlier date or dates.

Ø Station pressures apply to elevations shown in the "Elevations - Station Pressure" table of the annual issue of this publication.

B Number of days maximum 21.1 C. or above for Alaskan Stations.

# Wind direction to 8 compass points only.

Y Peak Gust.

Data in this table is obtained by conversion from data in the English Units table.

HEATING DEGREE DAYS

(Base 65°F.)

State and station	Current season		Normals
	This month	Period July through this month	July through this month
ALABAMA			
Birmingham	285	1956	2244
Huntsville	383	2380	
Mobile	141	1226	1343
Montgomery	196	1573	1769
ALASKA			
Anchorage	1287	8334	7718
Annette	798	4688	4773
Barrow	1988	12681	13196
Barter Island	1961	12978	
Bethel	1278	9460	8928
Cold Bay	882	6474	6299
Cordova	1060	6976	6519
Fairbanks	1620	11163	10600
Juneau	1097	6424	6225
King Salmon	1159	8483	7821
Kotzebue	1622	10708	10802
McGrath	1554	11105	10472
Nome	1363	9778	9468
St. Paul	1004	7247	6907
Shemya	919	6153	
Yakutat	1049	6523	6301
ARIZONA			
Flagstaff	965	5284	5212
Phoenix (U)	211	1213	1255
Phoenix	255	1341	1428
Prescott	670	3444	3358
Tucson	285	1593	1453
Winslow	789	4379	3610
Yuma	138	793	849
ARKANSAS			
Ft. Smith	498	2812	2619
Little Rock	445	2576	2441
Texarkana	314	2146	1954
CALIFORNIA			
Bakersfield	424	2149	1730
Bishop	674	3285	3179
Blue Canyon	875	3602	3708
Burbank	318	1183	1284
Eureka (U)	478	3253	3050
Fresno	461	2347	2040
Long Beach	336	1183	
Los Angeles (U)	309	987	1023
Los Angeles	308	1150	1380
Mt. Shasta (R)	796	4135	4111
Oakland	406	2065	2190
Point Arguello (R)	441	2408	
Red Bluff	489	2145	1982
Sacramento (U)	458	2163	1997
Sacramento	482	2337	2142
Sandberg (R)	732	3214	2862
San Diego	231	942	1060
San Francisco (U)	364	2005	2045
San Francisco	410	2171	2288
San Jose (U)	379	1745	1690
Santa Maria	407	2005	1936
COLORADO			
Alamosa	969	6376	6288
Colorado Springs	924	5250	4443
Denver	976	5185	4413
Grand Junction	752	4709	4488
Pueblo	815	4704	4248
CONNECTICUT			
Bridgeport	1031	3983	4177
Hartford	1160	4614	4508
Middletown	1133	4003	
New Haven	1044	4068	4281
DELAWARE			
Wilmington	940	3797	3700
DIST. OF COLUMBIA			
Washington (U)	791	3222	3258
Washington	848	3318	3304
FLORIDA			
Apalachicola (U)	119	910	1090
Daytona Beach	88	580	720
Fort Myers	19	215	345
Jacksonville	128	889	1051
Key West	2	46	70
Lakeland (U)	46	390	554
Miami	7	129	166
Miami Beach	2	81	114
Orlando	46	392	558
Pensacola (U)	139	1084	1187
Tallahassee	140	1139	1278
Tampa	55	387	572
West Palm Beach	14	167	215
GEORGIA			
Athens	416	2195	2253
Atlanta	410	2276	2269
Augusta	323	1831	1768
Columbus	238	1681	1951
Macon	237	1597	1712
Rome	429	2519	2516
Savannah	223	1425	1429
Thomasville (U)	120	1091	1232
IDAHO			
Boise	912	4875	4377
Idaho Falls 46W (R)	1208	6472	6234
IDAHO (Cont'd.)			
Idaho Falls 42NW (R)	1203	6806	6541
Lewiston	764	4240	4122
Pocatello	1001	5568	5082
ILLINOIS			
Cairo (U)	626	3107	3004
Chicago (Midway)	1091	4838	4648
Chicago (O'Hare)	1128	5099	
Moline	1150	5110	4805
Peoria	1088	5077	4591
Rockford	1213	5385	
Springfield	963	4517	4317
INDIANA			
Evansville	706	3620	3424
Ft. Wayne	1080	4805	4618
Indianapolis	957	4360	4201
South Bend	1140	4904	4775
IOWA			
Burlington	1098	4990	4601
Des Moines	1239	5601	4894
Dubuque	1304	5774	5402
Sioux City	1254	5667	5326
Waterloo	1345	5797	5383
KANSAS			
Concordia (U)	917	4564	4091
Dodge City	777	4181	3867
Goodland	892	4961	4650
Topeka	896	4574	4037
Wichita	776	4046	3564
KENTUCKY			
Lexington	726	3560	3746
Louisville	720	3517	3444
LOUISIANA			
Alexandria	202	1739	
Baton Rouge	126	1325	1332
Lake Charles	141	1234	1293
New Orleans(Audubon)	90		
New Orleans	98	1070	1096
Shreveport	227	1827	1784
MAINE			
Caribou	1613	6507	7209
Greenville (U)	1570	6489	
Portland	1307	5273	5438
MARYLAND			
Baltimore (U)	878	3300	3193
Baltimore	909	3681	3613
Frederick	970	3980	3707
MASSACHUSETTS			
Blue Hill Obs. (R)	1136	4545	
Boston	1066	4085	4130
Nantucket	947	3788	4047
Pittsfield	1286	5297	5503
Worcester	1195	4931	
MICHIGAN			
Alpena	1479	5941	5583
Detroit (City AP)	1157	4634	4608
Detroit (M. Wayne Co.)	1190	4804	
Detroit (Willow Run)	1160	4899	4703
Escanaba (U)	1404	5989	6013
Flint	1253	5206	5132
Grand Rapids	1209	4998	5081
Lansing	1237	5197	
Marquette (U)	1406	5974	5893
Muskegon	1227	4862	4970
S. Ste. Marie	1580	6419	6604
MINNESOTA			
Duluth	1609	7233	7112
Internat. Falls	1722	7807	7763
Minneapolis	1488	6401	5867
Rochester	1442	6402	6032
St. Cloud	1518	6777	6612
MISSISSIPPI			
Jackson	236	1864	1822
Meridian	255	1892	1930
Vicksburg (U)	218	1819	1656
MISSOURI			
Columbia	831	4185	3940
Kansas City	835	4162	3811
St. Joseph	988	4833	4153
St. Louis (RFC)	752	3631	3478
St. Louis	792	3935	3642
Springfield	682	3755	3632
MONTANA			
Billings	1148	5734	5161
Butte	1319	7352	6898
Glasgow	1460	6954	6549
Great Falls	1236	6111	5401
Havre	1360	6748	6102
Helena	1133	6217	5983
Kalispell	1094	6354	5840
Miles City	1239	6188	5841
Missoula	1117	6327	5784
NEBRASKA			
Grand Island	1097	5300	4805
Lincoln (U)	1068	5025	4490
Norfolk	1228	5681	5320
North Platte	1062	5390	4868
Omaha	1116	5210	4733
Omaha N. Omaha AP	1173	5502	
Scottsbluff	1021	5347	4955
Valentine	1209	5678	5191
NEVADA			
Elko	1018	5553	5266
Ely	987	5681	5265
Las Vegas	418	2320	2045
Reno	858	4661	4278
Tonopah	884	4556	4183
Winnemucca	966	5116	4619
NEW HAMPSHIRE			
Concord	1316	5134	5525
Mt. Washington Obs. (R)	1669	8924	
NEW JERSEY			
Atlantic City	860	3537	
Atlantic City (U)	847	3128	3331
Newark	963	3722	3883
Trenton (U)	950	3730	3760
NEW MEXICO			
Albuquerque	629	3632	3441
Clayton	700	4160	3781
Raton	789	4760	4661
Roswell	447	3124	2768
Silver City	516	3012	
NEW YORK			
Albany	1240	4923	5080
Binghamton	1288	5287	5408
Buffalo	1216	4783	4823
New York (U)	921	3503	3670
New York (LaGuardia)	952	3572	3631
Rochester	1215	4763	4913
Schenectady	1202	4812	5172
Syracuse	1211	4693	4711
NORTH CAROLINA			
Asheville (U)	531	2939	3105
Cape Hatteras (R)	478	1939	1802
Charlotte	509	2445	2555
Greensboro	625	2959	2991
Raleigh	584	2743	2649
Wilmington	387	1917	1865
Winston-Salem	623	2852	2921
NORTH DAKOTA			
Bismarck	1529	6851	6718
Devils Lake (U)	1737	7660	7345
Fargo	1660	7099	6917
Grand Forks CAA	1700	7315	
Pembina	1823	7783	
Williston (U)	1572	7006	6713
OHIO			
Akron	1067	4544	4497
Cincinnati (U)	790	3531	3465
Cincinnati	838	3713	3899
Cincinnati Obs.	853	3826	3696
Cleveland	1085	4456	4332
Columbus	1005	4391	4179
Columbus (U)	954	4087	3953
Dayton	1000	4343	4163
Mansfield	1092	4661	
Sandusky (U)	1054	4300	4235
Toledo	1120	4876	4629
Youngstown	1109	4753	4467
OKLAHOMA			
Oklahoma City	560	3127	2932
Tulsa	628	3347	2882
OREGON			
Astoria	590	3581	3346
Burns (U)	992	5438	5049
Eugene	629	3510	3394
Meacham	1008	5577	5356
Medford	671	3827	3338
Pendleton	699	4048	3956
Portland (U)	577	3060	3012
Portland	613	3363	3331
Roseburg	603	3395	3216
Salem	673	3589	3262
Sexton Summit (R)	808	4318	4079
PENNSYLVANIA			
Allentown	1056	4403	4356
Erie	1125	4465	4577
Harrisburg	1025	4062	3943
Philadelphia (U)	883	3347	3394
Philadelphia	963	4011	3656
Pittsburgh (U)	887	3800	3761
Pittsburgh	1020	4314	4370
Reading (U)	950	3761	3790
Scranton	1125	4656	4441
Williamsport	1063	4382	4387
RHODE ISLAND			
Block Island	1015	3883	3944
RHODE ISLAND (Cont'd.)			
Providence	1068	4176	4365
SOUTH CAROLINA			
Charleston (U)	246	1346	1466
Charleston	263	1605	1629
Columbia	360	1932	2012
Florence	396	1958	2090
Greenville	440	2250	2425
Spartanburg	480	2376	2430
SOUTH DAKOTA			
Huron	1480	6448	5923
Pierre	1327	5916	
Rapid City	1139	5544	5370
Sioux Falls	1333	6067	5911
TENNESSEE			
Bristol	572	3011	3203
Chattanooga	430	2505	2693
Knoxville	492	2767	2844
Memphis (U)	442	2555	2432
Memphis	410	2610	2547
Nashville	523	2853	2786
Oak Ridge	536	2876	3192
TEXAS			
Abilene	310	2245	2200
Amarillo	540	3399	3362
Austin	161	1454	1452
Brownsville	23	491	543
Corpus Christi	51	846	887
Dallas	293	2046	1909
Del Rio (U)	96	1258	
El Paso	318	2260	2201
Ft. Worth	328	2130	1958
Galveston (U)	98	945	1005
Galveston	107	975	1029
Houston (U)	71	845	1083
Houston	99	1066	1168
Laredo	41	818	710
Lubbock	457	2965	2869
Midland	309	2289	2153
Port Arthur	110	1190	1267
San Angelo	265	2070	1788
San Antonio	108	1287	1355
Victoria	90	1061	969
Waco	234	1760	1696
Wichita Falls	408	2571	2475
UTAH			
Milford	924	5144	4783
Salt Lake City	936	4990	4358
Wendover	923	4783	
VERMONT			
Burlington	1433	5730	5698
VIRGINIA			
Lynchburg	723	3237	3193
Norfolk	668	2720	2630
Richmond	702	3141	3068
Roanoke	678	3170	3194
WASHINGTON			
Olympia	674	3994	3822
Seattle (U)	545	3076	3131
Seattle	576	3306	3389
Seattle-Tacoma	610	3574	3700
Spokane	905	5292	4981
Stampede Pass (R)	1010	6258	6175
Tatoosh Island (R)	582	3911	3803
Walla Walla	749	4072	
Walla Walla (U)	715	3860	3737
Yakima	818	4597	4519
WEST VIRGINIA			
Charleston	687	3399	3357
Huntington (U)	715	3298	3162
Parkersburg (U)	808	3650	3599
WISCONSIN			
Green Bay	1426	6208	5977
La Crosse	1345	5853	5739
Madison	1337	5930	5476
Milwaukee	1224	5486	5141
WYOMING			
Casper	1071	6037	5440
Cheyenne	1056	5789	5181
Lander	1127	6710	6012
Sheridan	1146	5232	5675

Data from airport unless otherwise specified.
U indicates Urban, R indicates Rural, sites.

STORM SUMMARY

STATE	TORNADOES					HAILSTORMS				WINDSTORMS				LIGHTNING				‡ HEAVY SNOWSTORMS AND BLIZZARDS				# ICE STORMS				ø ALL OTHER			
	NUMBER	DAYS	DEATHS	INJURIES	†DAMAGE	DEATHS	INJURIES	†DAMAGE PROPERTY	†DAMAGE CROPS	DEATHS	INJURIES	†DAMAGE PROPERTY	†DAMAGE CROPS	DEATHS	INJURIES	†DAMAGE PROPERTY	†DAMAGE CROPS	DEATHS	INJURIES	†DAMAGE PROPERTY	†DAMAGE CROPS	DEATHS	INJURIES	†DAMAGE PROPERTY	†DAMAGE CROPS	DEATHS	INJURIES	†DAMAGE PROPERTY	†DAMAGE CROPS
Alabama *																													
Alaska *																													
Arizona *																													
Arkansas	1	1	0	0	4	0	0	?	0																				
California	2	1	0	0	3					0	0	3	0													20	15	7	0
Colorado										0	6	4	0													0	0	5	0
Connecticut *																													
Delaware *																													
Florida										0	0	3	0	0	0	4	0												
Georgia	1	1	0	0	4																								
Hawaii																										0	0	4	0
Idaho *																													
Illinois N																													
Indiana																		0	[illegible]	4	0	0	?	4	0				
Iowa														0	1	0	0	0	0	6	0								
Kansas *																													
Kentucky																						0	0	4	0				
Louisiana	4	2	0	1	3	0	0	4	0																				
Maine																		0	0	4	0	0	0	2	0				
Maryland *																													
Massachusetts										0	0	4	0	0	0	4	0	0	0	5	0	0	0	4	0	0	1	4	0
Michigan *																													
Minnesota *																													
Mississippi	7	3	0	6	5	0	0	5	0	0	0	4	0																
Missouri	2	1	0	0	4	0	0	4	0	0	0	4	0	0	0	4	0												
Montana										0	0	S3	0																
Nebraska														0	0	3	0					0	0	4	0				
Nevada																										1	15	5	4
New Hampshire																		0	0	4	0	0	0	4	0				
New Jersey																								3					
New Mexico *																													
New York												5				3				5				5					
North Carolina *																													
North Dakota *																													
Ohio																						0	F	6	0				
Oklahoma *																													
Oregon										0	0	4	3																
Pennsylvania										0	0	4	0																
Puerto Rico *																													
Rhode Island																		0	0	5	0								
South Carolina	3	2	0	1	4																								
South Dakota																		H0	0	0	0								
Tennessee	1	1	0	0	5					0	1	3	0	0	1	3	0									0	0	6	?
Texas	4	2	0	0	4	0	?	0	0	0	0	4	0																
Utah																										0	?	6	3
Vermont										0	1	3	0					0	0	4	0	0	0	3	0				
U. S. Virgin Is. *																													
Virginia *																													
Washington *																													
West Virginia																										1		6	
Wisconsin *																													
Wyoming *																													

* No occurrence of storms or unusual weather phenomena.
‡ Includes heavy sleet storm.
# Freezing drizzle and freezing rain, commonly known as glaze.
ø For breakdown of "All Others", and for detailed listing of other storms, see the U. S. Weather Bureau monthly publication STORM DATA.
N No report received by printing deadline.
F Few
S Includes heavy snow.
H Several heart attacks due to overexertion.

† Storm damages are placed in categories varying from 1 to 9 as follows:
1 Less than $50
2 $50 to $500
3 $500 to $5,000
4 $5,000 to $50,000
5 $50,000 to $500,000
6 $500,000 to $5,000,000
7 $5,000,000 to $50,000,000
8 $50,000,000 to $500,000,000
9 $500,000,000 to $5,000,000,000

GENERAL SUMMARY OF RIVER AND FLOOD CONDITIONS

FEBRUARY 1962

The most important flooding during February occurred in Kentucky and southeastern Idaho. Flooding along the Red River in Kentucky was of record proportions. A few cities were isolated or inundated by the rising waters. Severe flash flooding occurred in the headwaters of the Licking River and on creeks flowing into the North Fork of the Kentucky River. The highest stages of record occurred along the upper Green River in Kentucky. Maximum floods of record occurred in southeastern Idaho in the Portneuf, Blackfoot, and Henrys Fork Basins. Damage in this area was heavy and was estimated at $10 million. Many families were driven from their homes.

RED RIVER OF THE NORTH

Heavy snow cover existed over the Red River Valley of the North during February with the heaviest amounts over the northern portions. Pembina, N. Dak., reported 36 inches and Fargo, N. Dak., 14 inches.

ST. LAWRENCE DRAINAGE

Lake Erie.--Minor flooding occurred along tributaries of the Maumee River system in Indiana and Ohio during February. The St. Marys River at Decatur, Ind., crested near 15.6 feet on the 27th, 2.6 feet above flood stage. Only minor flooding occurred on low ground along the river with little or no damage. The St. Joseph River at Montpelier, Ohio, crested slightly above flood stage. No damage was reported. The Blanchard River at Ottawa, Ohio, caused minor flooding of low ground near the city. This minor flooding in the Maumee system resulted from a combination of snowmelt and moderate rains. On February 23 and 24, a heavy snowstorm deposited 6 to 8 inches of new snow over almost the entire Maumee River Basin. On the 26th and 27th moderate to heavy rainfall occurred over most of the basin, with amounts generally ranging from 0.50 to 0.75 inch. The rain and the accompanying snowmelt on hard frozen ground resulted in a high percentage of runoff from the effective rainfall.

Lake Ontario.--Ice jams in the east branch of the upper Niagara River in New York produced minor flooding on Cayuga Island on February 1, with maximum depth reported at 1 foot in an area of a few streets. Dynamiting crews of the State Power Authority supported by a steel-hulled boat and a 6-ton tug were employed on an almost continuing daily basis through February to combat the ice jams on the upper Niagara River. By the end of the month conditions were about normal. Thawing temperatures on the 4th and 5th produced an ice jam in the West Seneca section of the Cazenovia Creek on the 5th. This resulted in ice and water overflowing the banks into adjacent backyards. Streams throughout western New York, loaded with ice at the end of February, maintained the potential for flooding should heavy rains or rapid snowmelt develop.

ATLANTIC SLOPE DRAINAGE

There were no important fluctuations in river levels in Maine during February. The snow cover was unusually light in northeastern Maine, but above normal in the southwestern sections of the State. The ice on the streams was unusually thick.

Shallow flooding occurred on the Millstone and Raritan Rivers in New Jersey towards the end of February. Heavy showers on the 24th caused rises to near bankfull stage on the Assunpink Creek, the Millstone and Raritan Rivers. This was followed by a general 1-inch rain on the 26th. Continued rainfall on the 27th and 28th maintained high flow in all New Jersey streams, but it was not sufficient to cause further flooding.

Minor flooding occurred on the Perkiomen and Neshaminy Creeks in southeastern Pennsylvania on the 26th. The ground was generally frozen and only superficial thawing had occurred when rain spread over the area on the morning of the 26th. Rainfall averaged about an inch and runoff was quite high. Traces of snow in some sections added to the runoff. Flooding was brief and little if any damage occurred.

Heavy rainfall (1.25 inches) on the 24th and moderate rain on the 27th and 28th, supplemented by snowmelt, caused minor rises on all streams in the Susquehanna Basin in Pennsylvania. Some small streams in the extreme southern portion were reported out of their banks. The West Branch and main stem Susquehanna crested at one-half bankfull and the Juniata at three-fourths bankfull. The snow cover at the end of the month averaged 3 inches in the upper half of the basin with a trace in the lower half. The water equivalent of the snow cover in the upper basin was 1.25 inches. Ice was reported on all streams throughout the period. The first significant movement was reported during the rise at the end of the month with some minor jamming.

Minor flooding occurred on the Neuse and Cape Fear Rivers in eastern North Carolina beginning on the 24th and continuing into March. This rise was due to heavy rain (1.5 inches) on the 22d and 23d followed by heavy rain again on the 26th. No damage was reported.

The flooding on the Pee Dee, Edisto, Saluda, and Broad Rivers in South Carolina was due to heavy rainfall from the 19th through the 24th which ranged up to 4.5 inches over the headwaters of the Edisto Basin. The high water delayed bridge construction in the Peedee, S. C., area. Along the main stream in the vicinity of Givhans Ferry State Park, low camp sites and secondary approach roads were flooded to a shallow depth resulting in inconvenience. Damage was negligible along the Saluda, Broad, and Catawaba Rivers. There was some lowland and swampland flooding along the Congaree River below Columbia and along the Wateree below Camden, which resulted in some loss to pasturage and some interruption of pulpwood and logging industries.

A slow rise in the Savannah River Basin in Georgia during the first part of the month caused minor flooding in the Clyo area.

The flooding on the Ocmulgee and Oconee Rivers in Georgia was due to heavy rain on the 19th, 21st, and 22d. The flood-producing rains occurred above Macon on the upper Ocmulgee and from Milledgeville northward to Oconee. Milledgeville reported 4.63 inches for the 24 hours ending at 7:00 a.m. on the 22d, Covington, 3.03 inches for the same period, and Winder, 2.35 inches. The heavy rain caused considerable surface flooding in Milledgeville on the 22d.

EAST GULF OF MEXICO DRAINAGE

Heavy rains on the 16th and from the 19th to the 24th caused a 5-foot overflow of the Apalachicola River at Blountstown, Fla., from the 21st into March. No damages resulted as only wooded areas in flat bottom lands were inundated. No loss in wages resulted as logging operators were able to shift to higher elevations, and only negligible time was lost in moving heavy equipment from lower elevations.

Only minor flooding occurred in streams in Alabama and the panhandle of Florida during February. The Choctawhatchee crested at bankfull stage at Geneva, Ala., on the 21st and 1.6 feet above flood stage at Caryville, Fla., on the 22d. This rise was due to locally heavy rains of 4 to 5 inches during the night of the 18th. These heavy rains continued off and on through the 23d, with 2 to 4 inches of rainfall reported over the northern half of Alabama on the 21st. Moderate rises occurred with some flooding on the Etowah, Coosa, and Cahaba Rivers. No great amount of damage resulted from these floods.

At the beginning of the month streams in the upper Tombigbee Basin in Mississippi were falling, while the lower streams were still rising from the heavy rains during late January. Heavy rains near the end of February again caused rises to above flood stage at all stations. Crests did not occur on the lower rivers until early in March. Crests on the lower reaches of the Tombigbee were about 10 feet above flood stage. Since this flood followed a much higher flood in December, little tangible damage occurred.

Above flood stages continued on the Pearl River from Jackson, Miss., downstream to Pearl River, La., during the first 2 weeks of February. Additional precipitation during the last decade of the month brought the river once more above flood stage at Edinburg, Miss., Jackson, Miss., and Bogalusa, La., by the end of the month. Flooding was light, however, and only low-lying farm- and timberlands were affected. Damage was negligible in the area of flooding.

MISSISSIPPI SYSTEM

Upper Mississippi Basin.--Snowfall for the month was in excess of 15 inches in the Upper Mississippi Basin, ranging up to 28 inches in central Wisconsin. As of the middle of February, frost depth varied considerably, ranging from a few inches to 20 inches in Wisconsin and eastern Minnesota and up to 60 inches in western Minnesota, where the snow cover did not come until the middle of February.

A comparison of snow depths in the Upper Mississippi Basin on February 28 with that of other years is given in the following table:

COMPARATIVE SNOW DEPTHS (INCHES)

Station	1962	1961	1960	1959	1958	1957	1956	1955
(Minnesota)								
Bemidji	24	5	5	4	T	14	22	25
International Falls	23	14	11	17	T	15	12	--
Duluth	23	8	17	9	3	22	--	-
Alexandria	17	0	4	1	0	4	12	10
New Ulm	17	0	T	T	0	0	6	7
Minneapolis	24	0	2	0	0	T	7	6
Rochester	13	2	3	13	0	T	6	1
(Wisconsin)								
Park Falls	33	6	17	10	3	16	20	--
Wausaw	30	1	5	9	0	1	7	--
Portage	24	0	4	10	T	0	T	--

Minor flooding occurred on the Middle River at Indianola, Iowa, and on the lower Des Moines at Ottumwa, Iowa, on the 5th due to runoff from melting snows. No damage resulted.

Light flooding occurred on streams in Illinois due to general rains and melting snow in January. The Kankakee at Momence, Ill., reached flood stage early in February. The Sangamon at Riverton, Ill., continued in flood from January 28 to February 15. The Illinois was still in flood at Meredosia, Ill., as the month ended. The Kaskaskia continued in flood at Carlyle, Ill., until the 18th and the Big Muddy at Murphysboro, Ill., until the 8th. General light to moderate rains of 1- to 3-day intervals during the last half of the month produced rises on many of the streams in central and southern Illinois, with a few locations reporting flood stage or higher. The Sangamon River at Riverton, Ill., rose to flood stage on the 19th and continued above flood until after the end of the month. The Kaskaskia at Vandalia rose to above flood stage on the 27th and crested at 19.0 feet, 1 foot above flood stage on the 28th. All flooding was limited to bottom lands which are usually not planted in winter grains. No damage was reported.

Missouri Basin.--Mild weather during the first half of February over the Yellowstone drainage resulted in numerous ice jams and localized flash floods on the Big Horn River and its tributaries in Wyoming and south-central Montana. Localized flooding also occurred on the Powder River and on the Yellowstone from Miles City to Glendive, Mont.

The first half of the month was mild over South Dakota. By the middle of February, the winter's snow cover was melted except for drifts and a more or less continuous thin layer of snow in the northeastern counties. Snow was reduced to drifts in northwestern Iowa, except for about 2 inches of snow which remained in the northern counties of Iowa; and in southwestern Minnesota. Light rain over the Big Sioux and the Floyd River Valleys on the 14th and 15th hastened the melting of most of the remaining snow. A few creeks went out of their banks along the Big Sioux, from Hawarden to Sioux City on the 14th, but only a small rise developed on the Big Sioux. The ice moved out of the West Branch of the Floyd River on the same date and became lodged in the main stem of the Floyd between Merrell, Iowa, and Sioux City. The Floyd River reached near bankfull stage at James, Iowa, on the 16th. Heavy snowstorms on the 17th and 18th and again on the 20th and 21st covered the area from central South Dakota into northern Nebraska, northwestern Iowa, and southwestern Minnesota. At the end of the month, the snow cover in these areas ranged from 1 to 2-1/2 feet -- the greater depths being in the tri-state area around Sioux Falls, S. Dak.

Minor flooding occurred along Plum Creek, in the Elkhorn Basin, about 3 miles northwest of West Point, Nebr., on the 15th and 16th. This rise was due to rapid runoff from rainfall on the 14th and 15th and ice gorges.

Maximum temperatures in the 40's and 50's from the 11th to the 15th plus 0.25- to 0.75-inch rainfall during the night of the 14-15th caused the ice in the Platte River to break up. An ice jam began forming in the vicinity of the Platte River Bridge on U. S. Highway 6, north of Ashland, Nebr., during the afternoon of the 16th. By evening, water began backing into the National Guard Camp about 1 mile north of the ice jam, flooding several buildings. The icepack also demolished part of a concrete wall of a cottage beside the Platte River. The ice jam broke loose at 10:05 p. m. on the 16th, leaving ice chunks on the camp roads. Damage from this local flooding was confined to a small portion of the National Guard Camp and adjacent lowlands.

Minor flooding occurred on the Platte River at Agency, Mo., from the 5th to the 9th. This rise was due mostly to ice action and the melting of snow and ice.

The overflows in progress at the beginning of the month in the lower Kansas and Marais des Cygnes Valleys was due to an early thaw and ice breakup which began over northeast Kansas late in January. One of the worst ice jams of recent years resulted in the Kansas River. A description of the flooding is given in the previous issue of this publication.

The flooding on streams in Missouri was due mostly to ice action and the melting of snow and ice. The rivers were locally frozen over during the first half of the month, with numerous ice jams in the northwestern portion of the State. Showers were generally light and were a minor contributing factor. There was some flooding on the Grand River of north Missouri on the 1st and again from the 4th to the 20th. The Grand was frozen over at Sumner until it broke on the 13th. The Blackwater River was out of its banks from the 2d to the 7th. Minor flooding of short duration occurred on the Chariton and Little Blue Rivers and on Wakenda Creek. Principal damage from the flooding was the delay of farm operations.

Ohio Basin.--The Allegheny River remained frozen over intermittently from Riverton, Pa., to Olean, N. Y., with ice from 4 to 11 inches thick. The ice gorges below Parker, Pa., and at Oil City, Pa., changed little during the month. The flood threat from backwater at Oil City, Pa., due to the ice gorge on Oil Creek was lessened somewhat due to the channel opening allowing a free passage of the stream flow.

Heavy rain on the 23d in Ohio and moderate rain in other sections caused moderate rises on tributaries of the Ohio River with the Hocking River reaching near flood state. Widespread flash flooding occurred on small streams in eastern Kentucky and southwestern West Virginia from heavy rain during the night of the 26th and 27th. The most serious flooding occurred on Paint Creek and Beaver Creek in Kentucky and on Twelvepole Creek and Guyandot River in West Virginia. Flooding occurred on the Hocking River in Ohio, Little Kanawha and Coal Rivers in West Virginia, and the Big Sandy in Kentucky and West Virginia.

Minor flooding occurred on the Scioto River and tributaries in Ohio during the last 4 days of the month. This flooding was due to the combined effects of 1 to 2 inches of rain and snowmelt on the 23d followed by persistent light rains to the end of the month. The high water resulted in temporary closing of secondary roads. No other damages occurred.

Heavy rains from the 23d to the 27th caused general flooding along most Ohio River tributaries. Minor flooding occurred along the Little Miami and the Great Miami Rivers in Ohio from the 26th to the 28th. Flooding continued into March along the lower reaches of the Great Miami River due to backwater from the flooding Ohio River. The Great Miami returned to its banks at Miamitown, Ohio, near midnight on the 28th.

Severe flash flooding occurred in the headwaters of the Licking River in Kentucky with probable record flooding at Salyersville and West Liberty on the 27th. The crest in the business section at Salyersville was considered by residents to be up to 2 feet lower than at the gage and 6 inches less than the flood of 1939. The flooding at West Liberty was the highest of memory. The crest was approximately 3 to 5 feet above the previous record high. Water came over the floor of the highway bridge over the Licking River for the first time. There is no river gage at West Liberty.

Severe flooding occurred along the entire length of the Red River (tributary of the Kentucky River) in Kentucky, which was considered by many older residents to be of record porportions. The rapid rising river isolated Stanton, Ky., and inundated much of Clay City, Ky. The Eastern Kentucky Turnpike, under construction, lies in the river valley and was under water at a number of places. The flooding at Clay City was considered the worst since 1860. The highest stage recorded at the Clay City river gage was 22.8 feet in 1938. The observer estimated this flood crest at 24. 1 feet. Severe flash flooding occurred on Quicksand and Troublesome Creeks, tributaries of the North Fork of the Kentucky River, which was considered to be the greatest in memory. Major flooding occurred on nearby creeks. Minor flooding occurred along the North Fork of the Kentucky. Minor flooding occurred along the Red Bird and Goose Creeks, which flow into the South Fork of the Kentucky. Major flooding occurred at Oneida, Ky., the confluence of the Red Bird, Goose Creek, and the Bullskin Creeks. The crest was 33.5 feet, 14.5 feet above flood stage. Minor flooding occurred on the Kentucky River at Beattyville, Ky., the confluence of the three Forks of the Kentucky River, cresting on the 27th. Further downstream, below Lock 14, the river reached flood stage at almost all points on the 27th and 28th. Some points were more than 10 feet above flood at the end of the month and continuing to rise. Despite the occurrence of record flooding in a number of places, the overall damage was light considering the extent of flooding. However, there were individual heavy losses, and some areas did have moderate damage.

Rapid rises occurred on the Green River in Kentucky from the heavy general rains on the 24th and the 26th to the 28th. Rainfall averaged about 5 1/2 inches during the 4 days with some stations reporting between 8 and 9 inches. The highest stages of record occurred along the Green River above Brownsville, Ky., exceeding the floods of 1913 and 1937. Although the damages will be considerable, the fact that few if any crops were out or grain in storage in the lowlands will hold losses down. Some 260,000 acres were flooded.

There were two periods of flooding in Indiana during February. The first was a continuation of the flooding which began during the latter part of January. A description of this flood is given in the previous issue of this publication. The ice and flooding receded gradually without rapid thawing or heavy precipitation. The Wabash fell below flood stage at Lafayette by the 8th and at all points downstream to Mt. Carmel by the 15th. The White River continued above flood at Petersburg through the 4th. The second rise was due to the thawing of the wet snow cover of 5 to 9 inches, which accumulated over the northern three-fourths of the Wabash and White River Basins during the last week of the month. General rain ranging from 1 to 3 inches occurred on the 26th and 27th. The runoff from snowmelt and rain was sufficient to cause the Wabash River to rise 3 to 7 feet above flood stage at Hutsonville and the White, 1 to 5 feet above flood stage at most points. The Muscatuck crested 7 feet above flood stage at Crothersville, Ind., on the 27th.

General heavy rains over the lower Ohio Basin on the 21st, 22d, and 25th to the 27th caused flooding in the Cumberland and Tennessee River Basins during the latter part of February and the first part of March.

The Harpeth River was in flood at Kingston Springs, Tenn., on the 24th and again from the 26th into March. The latter overflow was much the greater with a crest of 29.5 feet on the 27th, 14.5 feet above flood stage. The Stones River began flooding at Donelson, Tenn., on the 27th, cresting the same night 10.6 feet above flood stage. The River was still in flood at the end of the month. The Cumberland River began overflowing at Clarkesville, Tenn., on the 26th, with crests occurring in March.

The Elk River continued in flood at Fayetteville, Tenn., from the 24th into March, cresting on the 28th nearly 5 feet above flood stage. The Duck River began overflowing at Columbia, Tenn., on the 26th, cresting on the 28th, 8.4 feet above flood stage. The Little Pigeon Creek was in flood at Sevierville, Tenn., on the 23d and 24th, cresting on the 23d, 3.7 feet above flood stage. Flash flooding occurred on First Creek in Knoxville, Tenn., on the morning of the 28th. Some streets and underpasses were flooded. The general heavy rains through the latter part of February caused heavy discharges from the dams on the main rivers. Flooding occurred below the dams in Whitesburg, Guntersville, and Florence, Ala., and below the Kentucky dam at Gilbertsville, Ky.

A general rise was occurring along the main stem of the lower Ohio at Dam 52, Brookport, Ill., in the beginning of February. Crests occurred on the 2d at Brookport and Cairo, Ill., and on the 3d at Grand Chain, Ill. The crests ranged from 2.5 to 3 feet above flood stage. The main stem of the Ohio had receded below flood stage at all points by the 10th.

The Ohio River was rising again towards the end of February and went out of its banks in the reach from Point Pleasant, W. Va., to Markland, Ind., on the 28th. It was also above flood stage at Tell City, Ind., and in the reach from Shawneetown, Ill., to Cairo, Ill., at the close of the month.

White Basin.--Heavy rains on January 21 and 22 caused the lower White River to rise to above flood stage on January 29, cresting slightly above flood stage on the 30th. It continued above flood stage through February 5.

A period of frequent moderate to locally heavy rains beginning on February 23 and continuing through the 27th caused a sharp rise on streams in the White Basin. The lower Black River was the only stream to exceed flood stage. Flooding occurred at Black Rock, Ark., from the 27th through March 14, cresting nearly 8 feet above flood stage on the 28th. Flood damage was minor, being limited to the loss of lowlands for grazing purposes. High water delayed pulpwood cutting and lumbering operations.

Arkansas Basin.--The Cottonwood River rose above flood stage at Emporia, Kans., on January 30 and continued in flood until February 1, after cresting 2 feet above flood stage on January 31. The Neosho River went out of its banks at Burlington, Kans., on January 30 and at LeRoy and Iola, Kans., on January 31. The Neosho crested 1 to 2 1/2 feet above flood stage between February 1 and 3, and was within its banks at all points on the 4th. This flood was due to a combination of snowmelt, ice jams, and rain on January 25 and 26. (See the previous report for a discussion on the cause of the flood.)

Red Basin.--The flooding in the Red Basin during February was due to a period of frequent moderate to locally heavy rains beginning on the 23d and continuing through the 28th. The heaviest amounts occurred on the 23d and 27th.

Flooding began on the Caddo River at Glenwood, Ark., on the 26th and continued through the 27th, cresting 2.1 feet above flood stage on the 26th. The Little Missouri was above flood stage from the 28th to March 1, cresting 0.9 foot above flood stage on the 28th. The Ouachita River was out of its banks at Arkadelphia, Ark., from the 27th to March 1, and at Camden, Ark., from the 26th to March 9. The Little River was in flood at Wilton, Ark., from the 26th to March 3, cresting 3.5 feet above flood stage on March 1.

The Sulphur River was in flood in the beginning of February at Naples, Tex., and continued in flood until March 4, cresting 5.3 feet above flood stage on January 31. The frequent rains from February 23 to the 28th caused the Sulphur River to again go out of its banks on the 27th, continuing in flood to March 6, cresting 3.1 feet above flood stage on March 1 and 2.

Lower Mississippi Basin.--The St. Francis River was in flood at Fisk, Mo., and St. Francis, Ark., in the beginning of the month. The river was above flood stage for 11 days at Fisk and 9 days at St. Francis. Flooding was confined to areas along the river inside the levees.

Heavy rains from the 24th to the 28th again caused flooding along the St. Francis, beginning on the 26th and continued into March. The crests occurred early in March and were 3 to 5 feet above flood stage.

The Coldwater River was out of its banks at Sarah, Miss., on the 23d and 24th. At Swan Lake, Miss., on the Tallahatchie, the river fell below flood stage on the 10th, but rose again to above flood stage on the 26th. At Yazoo City on the Yazoo, the river fell below flood stage on the 13th, but remained within 2 feet of flood stage for the remainder of the month. The Big Black River at Pickens, Miss., remained above flood stage until the 6th, then rose to above flood stage on the 23d. The river then remained above or near flood stage for the remainder of the month. The Big Black River at Bovina, Miss., fell from the high stage of 37.5 feet on the 1st to below flood stage on the 11th. A strong rise was in progress at Bovina during the last week of the month, but flood stage was not reached until March 2. Mostly farm- and pasturelands were affected and damages are believed light in most areas, except in the lower Big Black Basin where high stages were reached.

WEST GULF OF MEXICO DRAINAGE

The Calcasieu River crested on January 29 at Hineston, La., 0.4 foot above flood stage and receded within its banks by February 1. At Deweyville, Tex., the Sabine was slightly above bankfull stage during the first half and last few days of the month, and near bankfull the rest of the month.

Great Basin.--Snowmelt floods associated with rainfall occurring over frozen ground caused considerable damage in Utah, Nevada, and Idaho sections of the Great Basin.

Flooding first started during the evening of the 8th in the area near Gunnison, Utah. U. S. Highway 89 was blocked for 2 days northeast of Gunnison due to a large pond of water over the highway. By the 11th flooding was also occurring in northern Utah near Heber, Utah, and in Boxelder and Cache Counties, and in lower areas of the Bear River Basin in Idaho. By the 12th flooding was occurring in Nevada.

PACIFIC SLOPE DRAINAGE

Heavy precipitation occurred over California between the 6th and the end of the month.

Some damage occurred in the Ventura and Santa Clara watersheds in Ventura County and in the Dominquez Creek area of Los Angeles County. Nine persons were drowned in flood waters. Considerable street flooding occurred in Los Angeles and Ventura Counties and there were many mud slides in unconsolidated fills and from burned-over watersheds on foothill slopes.

Minor flooding occurred along the lower reaches of the Fresno and Chowchilla Rivers on the 10th and 11th. There was also some minor flooding along creeks that flow out of the Sierras not protected by dams. Storm totals from the 7th to the 12th over the central Sierra reached about 5 inches at the lower levels and to over 16 inches at moderate elevations. The ground was fairly dry prior to the storm so runoff was not high enough to cause any large crests. In Merced County, Bear Creek inundated 1,000 to 1,500 acres of farmland with no appreciable damage.

Except for some local flooding in cities due to inadequate drainage and a few sharp rises on the Sacramento and Feather Rivers, no flood stages were reached on any of the rivers in the Sacramento and San Joaquin River Basins. Stages on the upper Sacramento River at Red Bluff were high enough to cause overflow at Colusa, Moulton, Tisdale, and Fremont Weirs into Sutter and Yolo bypasses. Fremont Weir overflowed from the 11th to the 23d. This rainy period in the Sacramento and San Joaquin Basins lasted almost without interruption until March 7, ending the 3-year drought. The snowpack during this period increased from a near minimum of record on February 1 to 115 percent of normal on March 1. This increase almost assures an adequate water supply during the spring growing season.

On the whole, the rains over northern and central California from the 6th to the 18th were beneficial, as drought conditions prevailed in many areas. The conservation water pool behind Naciemento Dam on the tributary of the Salinas River was almost completely replenished and the Hernandez reservoir on the San Benito River, a tributary of the Pajaro, was nearly half full. Only on the Russian River did any appreciable flooding occur. This was confined to Guerneville and surrounding area, and damage was mostly minor. The total storm rainfall over the Russian Basin ranged from 9 to 15 inches. The river remained above flood stage for almost 3 days.

Columbia Basin.--Rain and low elevation snowmelt on frozen ground on the 10th and 11th produced maximum floods of record in southeastern Idaho in the Portneuf, Blackfoot, and Henrys Fork Basins and other small streams in the area. Ice jams were reported on most streams. No flooding occurred along the main stem of the Snake River. However, flooding on tributaries from the mouth of the Wood Rivers upstream during the period from the 9th to the 19th accounted for damage estimated by State and Federal Agencies at $10 million. Some 1,549 families were driven from their homes in 10 eastern counties of Idaho. Hardest hit was Bonneville County, where 655 families were affected. Bannock was next with 415 families affected. Other counties sustaining losses were Bingham, Caribou, Oneida, Madison, Fremont, Gooding, Jefferson, and Clark. Loss and/or damage was heavy to roads, highways, bridges, farmland top-soil, utilities, railroads, buildings of all kinds, and canal systems.

FLOOD STAGE DATA

(All dates in February unless otherwise specified)

River and station	Flood stage	Above flood stages -dates		Crest *	
		From—	To—	Stage	Date
ST. LAWRENCE DRAINAGE	Ft.			Ft	
Lake Erie					
St. Marys. Decatur, Ind.	13	Jan. 26	1	18.2	Jan. 28
St. Joseph: Montpelier, Ohio	10	28	Mar. 1	10.1	Mar. 1
ATLANTIC SLOPE DRAINAGE					
Millstone: Blackwell Mills, N. J.	8	27	27	8.15	27
Raritan Manville, N. J.	12	26	27	13.5	27
Bound Brook, N. J.	8	27	27	9.1	27
Perkiomen Creek: Graterford, Pa.	11	26	26	E12.5	26
Neuse Neuse, N. C.	14	25	Mar. 2	14.9 14.95	27 Mar. 1
Smithfield, N. C.	13	25	Mar. 4	16.25	28
Goldsboro, N. C.	14	3 26	7 Mar. 8	15.4 15.5	6 Mar. 5
Cape Fear: Lock #3, Tarheel, N. C.	42	24	Mar. 1	45.9	25
Lock #2, Elizabethtown, N. C.	20	24	Mar. 2	24.6	Mar. 1
Rocky: Norwood, N. C.	16	22 26	23 27	19.2 23.8	22 26
Pee Dee: Cheraw, S. C.	30	27	Mar. 1	E35.5	28
Pee Dee, S. C.	19	Jan. 31 24	6 1/	E20.8 E22.8	3 Mar. 4
Saluda: Pelzer, S. C.	6	23 25	23 28	6.0 7.5	23 26
Chappells, S. C.	13	22	23	15.0	23
Broad: Blair, S. C.	14	22 27	24 28	17.6 16.8	23 27
North Fork Edisto: Orangeburg, S.C.	8	22	Mar. 2	E9.2	24
Edisto: Givhans Ferry, S. C.	10	27	1/	E12.5	Mar. 6
Savannah: Clyo, Ga.	11	3	10	12.5	8
Ocmulgee: Macon, Ga.	18	22 24	22 26	19.6 19.9	22 25
Abbeville, Ga.	12	28	28	12.25	28
Oconee: Milledgeville, Ga.	20	23	26	23.5	24
EAST GULF OF MEXICO DRAINAGE					
Apalachicola: Blountstown, Fla.	15	21	1/	20.0	27,28
Choctawhatchee: Geneva, Ala.	23	21	21	#23.0	21
Caryville, Fla.	12	21	26	13.6	22
Etowah: Canton, Ga.	17	22	22	17.2	22
Coosa: Gadsden, Ala	20	Jan. 28	2	20.8 22.0	Jan. 29 Jan. 31
Cahaba: Centreville, Ala.	23	22	24	28.3	22
Alabama: Millers Ferry, Ala.	40	27	Mar. 2	#42.8	28
Old Town Creek West Fork: Tupelo, Miss.	21	26	26	22.5	26
Tibbee Creek: Tibbee, Miss.	23	25	27	24.4	26
Noxubee River: Macon, Miss.	25	Jan. 28 24	1 Mar. 2	28.2 26.3	Jan. 28 25
Black Warrior: Warrior Lock & Dam, Ala.	30	Jan. 28 24	5 27	39.9 33.1	1 25 & 26
Tombigbee: Fulton, Miss.	16	23	Mar. 3	17.6	27
Amory, Miss.	20	Jan. 24 24	1 Mar. 4	26.5 25.5	Jan. 28 Mar. 1
Aberdeen, Miss.	34	Jan. 28 25	1 Mar. 5	39.6 39.6	Jan. 29 Mar. 2
Columbus, Miss.	29	Jan. 30	1	30.7	Jan. 31
Gainesville, Ala.	36	Jan. 28	8	43.3	4
Demopolis Lock & Dam, Ala.	48	Dec. 14 25	9 Mar. 2	67.1 59.1 51.3	Dec. 26 4 27
Jackson Lock & Dam, Ala.	43	Dec. 12 25	13 Mar. 20	60.6 53.0 48.0	Dec. 30 8 Mar. 3
Pearl: Edinburg, Miss.	20	Jan. 28 26	2 1/	22.1 21.35	Jan. 30 28
Jackson, Miss.	18	Dec. 11 25	12 1	29.3 26.2	Jan. 28 Mar. 5
Monticello, Miss.	19	Jan. 16	12	25.25	Jan. 21
EAST GULF OF MEXICO DRAINAGE(Cont'd.)	Ft			Ft	
Pearl (Cont'd.): Columbia, Miss.	17	Jan. 18	9	21.0	Jan. 22
Bogalusa, Miss.	15	Dec. 10 24	18 1	19.6 17.4	Jan. 28 28
Pearl River, La.	12	Jan. 12	20	16.2	Jan. 30
MISSISSIPPI SYSTEM					
Upper Mississippi Basin					
Middle: Indianola, Iowa	15	5	5	15.9	5
Des Moines: Ottumwa, Iowa	9	5	5	9.1	5
Kankakee: Momence, Ill.	4	1	8	4.5	7
Sangamon: Riverton, Ill.	13	Jan. 28 19	15 1/	15.75 E17.4 14.2 #15.5	Jan. 31-1 6 23 28
Illinois: Havana, Ill.	14	Jan. 29	4	E14.6	1
Beardstown, Ill.	14	Jan. 23	22	16.15 15.65	2-3 11
Meredosia, Ill.	428	Jan. 13	1/	433.3 432.1	4 11
Kaskaskia: Shelbyville, Ill.	13	Jan. 26	2	15.0	Jan. 29
Vandalia, Ill.	18	Jan. 27 27	6 1/	22.7 19.0	Jan. 29 28
Carlyle, Ill.	21	Jan. 28 25	18 1/	25.2 #22.4	1 28
Big Muddy: Murphysboro, Ill.	16	Jan. 22 24	8 1/	27.7 #23.8	Jan. 29 28
Missouri Basin					
Platte: Agency, Mo.	20	5	9	#24.2	7
Little Blue: Lake City, Mo.	18	4	4	#18.5	4
Grand: Pattonsburg, Mo.	25	5	5	26.05	5
Chillicothe, Mo.	24	5 13	8 17	#26.1 #27.2	5 16
Sumner, Mo.	26	Jan. 28 4	1 20	29.1 #31.7 #31.8	Jan. 29 8 16
Brunswick, Mo.	12	9 13 16	11 14 19	#13.25 #13.5 #13.9	10 13,14 17
Chariton: Prairie Hill, Mo.	15	5	5	#15.5	5
Blackwater: Blue Lick, Mo.	25	2	7	#28.3	6
Osage: Schell City, Mo.	25	Jan. 29	8	29.1	2,3
Ohio Basin					
Little Kanawha: Creston, W. Va.	20	28	28	22.7	28
Hocking: Enterprise, Ohio	12	28	28	12.15	28
Athens, Ohio	17	27	Mar. 1	#18.0	28
Coal: Tornado, W. Va.				29.0	28
Guyandott: Logan, W. Va.	20	27	27	22.0	27
Branchland, W. Va.	30	27	Mar. 1	38.9	28
Tug Fork: Williamson, W. Va.	27	27	27	27.2	27
Kermit, W. Va.	38	27	28	40.4	27
Beaver Creek: Martin, Ky.	12	27	28	29.2	27
Big Sandy: Louisa, Ky.	45	27	Mar. 2	50.3	28
Paint Creek: Bourneville, Ohio	10	24 27	24 Mar. 1	13.6 15.0	24 28
Scioto: LaRue, Ohio	11	27	28	13.6	27
Prospect, Ohio	10	28	28	10.1	28
Circleville, Ohio	14	27	Mar. 2	18.1	28
Chillicothe, Ohio	16	28	Mar. 2	18.1	Mar. 1
Piketon, Ohio	16	25	Mar. 3	25.5	Mar. 1
South Fork Licking: Cythiana, Ky.	20	27	Mar. 1	20.55	28
Licking: Farmers, Ky.	25	27	Mar. 1	26.7	28
Falmouth, Ky.	28	27	Mar. 2	33.9	28
South Fork Kentucky: Oneida, Ky.	29	27	28	33.6	27
North Fork Kentucky: Hazard, Ky.	20	27	27	21.1	27
Jackson, Ky.	29	27	Mar. 1	33.0	28

FLOOD STAGE DATA

(All dates in February unless otherwise specified)

River and station	Flood stage	Above flood stages -dates		Crest *	
		From—	To—	Stage	Date
MISSISSIPPI SYSTEM (Cont'd.)	Ft.			Ft.	
Ohio Basin (Cont'd.)					
Red: Clay City, Ky.	19	27	28	23.9	28
Kentucky: Lock 11, College Hill, Ky.	30	27	Mar. 3	38.2	Mar. 1
Lock 10, Ford, Ky.	25	27	Mar. 4	R36.3	Mar. 2
Lock 7, Highbridge, Ky.	30	27	Mar. 5	37.8	Mar. 1
Lock 4, Frankfort, Ky.	31	27	Mar. 5	40.7	Mar. 1
Barren: Bowling Green, Ky.	28	27	Mar. 4	49.9	28
Rough: Dundee, Ky.	25	27	Mar. 1		
Green: Munfordville, Ky.	28	27	Mar. 4	57.7	Mar. 1
Lock 6, Brownsville, Ky.	18	26	Mar. 6	41.7	Mar. 2
Lock 4, Woodbury, Ky.	33	25	Mar. 12	53.8	Mar. 3
Lock 2, Calhoun, Ky.	23	Jan. 26 27	2 Mar. 28	25.8 33.8	Jan. 30&31 Mar. 10
Muscatatuck: Crothersville, Ind.	T16	24	1	23.0	27
East Fork-White: Seymour, Ind.	14	27	Mar. 2	16.0	28
White: Anderson, Ind.	10	27	28	11.3	27
Nora, Ind.	6	27	28	11.4	28
Ravenswood, Ind.	6	27	28	6.55	28
Spencer, Ind.	14	Jan. 28 27	1 Mar. 2	19.5 16.9	Jan. 30 Mar. 1
Elliston, Ind.	18	Jan. 29 27	2 Mar. 3	#22.6 21.0	Jan. 31 Mar. 2
Edwardsport, Ind.	15	Jan. 29 28	3 Mar. 5	19.7 18.7	1 Mar. 3
Petersburg, Ind.	16	Jan. 22 27	4 Mar. 10	16.9 21.8	3 Mar. 5
Skillet Fork: Wayne City, Ill.	15	13	Mar. 1	18.1	26
Little Wabash: Wilcox (NR), Ill.	16	24	Mar. 5		
Wabash: Bluffton, Ind.	10	Jan. 26	Jan. 30	12.9	Jan. 29
Wabash, Ind.	12	Jan. 7 27	Jan. 7 Mar. 1	12.95 16.4	Jan. 7 27
Lafayette, Ind.	11	Jan. 7 Jan. 17 Jan. 27 5 27	Jan. 10 Jan. 21 3 7 Mar. 2	14.6 12.2 21.2 13.2 18.1	Jan. 8 Jan. 18 Jan. 29 6 28
Covington, Ind.	16	Jan. 8 Jan. 18 Jan. 27 27	Jan. 10 Jan. 22 8 Mar. 3	17.0 17.1 25.4 21.1	Jan. 9 Jan. 20 Jan. 31 Mar. 2
Montezuma, Ind.	14	Jan. 8 Jan. 16 27	Jan. 10 9 Mar. 4	15.15 24.9 18.9	Jan. 9 1 Mar. 3
Clinton, Ind.	18	Jan. 27 28	4 Mar. 4	22.5 18.55	1 Mar. 3
Terre Haute, Ind.	14	Jan. 27 27	9 Mar. 5	17.6 16.5	2 Mar. 4
Hutsonville, Ind.	12	Jan. 27 26	14 1/	20.6	4
Riverton, Ind.	18	G			
Vincennes, Ind.	16	3	9	17.4	6
Mt. Carmel, Ill.	17	Jan. 28 Mar. 1	6 Mar. 11	18.8 21.3	5 Mar. 7
New Harmony, Ind.	15	Mar. 3	Mar. 11	16.6	Mar. 9
Saline: Harrisburg, Ill.	13	10 24	10 Mar. 19		
Stones: Donelson, Tenn.	T40	27	Mar. 1	50.6	27
Harpeth: Kingston Springs, Tenn.	15	24 26	24 Mar. 1	19.0 29.5	24 27
Cumberland: Barbourville, Ky.	27	27	Mar. 3	36.4	Mar. 1
Williamsburg, Ky.	21	27	Mar. 4	27.55	Mar. 1
Nashville, Tenn.	40	27	Mar. 3	47.3	Mar. 1
Clarksville, Tenn.	46	26	Mar. 6	E58.5	Mar. 1
Little Pigeon: Sevierville, Tenn.	9	23	24	12.7	23
First Creek: Knoxville, Tenn.	6	28	28	6.2	28
S. Chickamauga Creek: Chickamauga (Nr), Tenn.	10	22	26	15.9	24
Elk: Fayetteville, Tenn.	18	25 28	26 1	18.3 20.4	26 28

River and station	Flood stage	Above flood stages -dates		Crest *	
		From—	To—	Stage	Date
MISSISSIPPI SYSTEM (Cont'd.)	Ft.			Ft.	
Ohio Basin (Cont'd.)					
Duck: Shelbyville, Tenn.	719	28	1/	719.4	Mar. 1
Columbia, Tenn.	32	26	Mar. 2	39.55	28
Tennessee: Whitesburg, Ala.	560	Jan. 25 23	3 1/	570.5 570.6	Jan. 29 27
Florence, Ala.	419	Jan. 26 23	3 1/	423.4 425.7	1 28
Savannah, Tenn.	380	Jan. 29 25	4 Mar. 8	384.0 388.8	2 Mar. 3
Gilbertsville, Ky.	320	Jan. 25 25	9 1/	328.3 339.2	1 Mar. 3
Ohio: Dam 23, Racine, Ohio	37	28	Mar. 2	42.1	Mar. 1
Point Pleasant, W. Va.	40	27	Mar. 3	44.1	28
Gallipolis Dam, Hogsett, W. Va.	50	28	Mar. 2	51.5	Mar. 1
Huntington, W. Va.	50	27	Mar. 3	56.0	Mar. 1
Ashland, Ky.	52	27	Mar. 4	61.0	Mar. 1
Greenup Dam, Ky.	54	27	Mar. 4	61.5	Mar. 1
Portsmouth, Ohio	50	28	Mar. 4	59.1	Mar. 2
Dam 32, Vanceburg, Ky.	53	28	Mar. 5	60.0	Mar. 2
Dam 33, Maysville, Ky.	50	28	Mar. 5	59.8	Mar. 2
Dam 34, Chilo, Ohio	49	28	Mar. 5	57.6	Mar. 2
Dam 35, Oneonta, Ky.	48	28	Mar. 6	57.6	Mar. 2
Dam 36, California, Ky.	52	28	Mar. 5	61.6	Mar. 2
Cincinnati, Ohio	52	28	Mar. 6	61.3	Mar. 3
Dam 37, Fernbank, Ohio	50	28	Mar. 7	60.5	Mar. 3
Dam 38, Grant, Ky.	51	28	Mar. 7	60.0	Mar. 3
Dam 39, Markland, Ind.	48	28	Mar. 7	58.0	Mar. 3
Dam 41, Louisville, Ky.	55	28	Mar. [illegible]		
Dam 43, Evans Landing, Ind.	57	28	Mar. 8		
Dam 44, Leavenworth, Ind.	53	28	Mar. 9		
Dam 45, Addison, Ky.	47	28	Mar. 10		
Tell City, Ind.	38	28	Mar. 12	47.8	Mar. 6
Dam 47, Newburgh, Ind.	38	28	Mar. 20	47.5	Mar. 7
Dam 48, Cypress, Ind.	38	28	Mar. 20	47.6	Mar. 8
Mt. Vernon, Ind.	35	28	Mar. 23	46.1	Mar. 9
Shawneetown, Ill.	33	Jan. 27 28	4 1/	35.3 49.7	Jan. 30 Mar. 9
Dam 50, Fords Ferry, Ky.	34	Jan. 26 27	5 1/	37.8 52.9	Jan. 30 Mar. 10
Dam 52, Brookport, Ill.	37	Jan. 28	7	39.9	2
Dam 53, Grand Chain, Ill.	42	Jan. 28	7	44.7	3
Cairo, Ill.	40	Jan. 29	10	*42.45	2
White Basin					
Black: Black Rock, Ark.	14	27	1/	21.8	28
White: Clarendon, Ark.	26	Jan. 29	5	26.1	Jan. 30
Arkansas Basin					
Cottonwood: Emporia, Kans.	20	Jan. 30	1	22.0	Jan. 31
Neosho: Burlington, Kans.	27	Jan. 30	2	29.5	1
LeRoy, Kans.	23	Jan. 31	3	24.2	2
Iola, Kans.	15	Jan. 31	4	16.3	3
Red Basin					
Caddo: Glenwood, Ark.	10	26	27	12.1	26
Little Missouri: Boughton, Ark.	20	28	Mar. 1	20.9	28
Ouachita: Arkadelphia, Ark.	17	27	Mar. 1	21.65	28
Camden, Ark.	26	26	Mar. 9	35.3	Mar. 4
Little: Wilton, Ark.	25	26	Mar. 3	28.5	Mar. 1
Sulphur: Naples, Texas	22	Jan. 29 27	4 Mar. 6	27.3 25.1	Jan. 31 Mar. 1,2
Lower Mississippi Basin					
St. Francis: Fisk, Mo.	20	Jan. 24 27	3 Mar. 6	24.2 25.0	Jan. 27 Mar. 1-2

FLOOD STAGE DATA

(All dates in February unless otherwise specified)

River and station	Flood stage	Above flood stages -dates		Crest	
		From–	To–	Stage	Date
MISSISSIPPI SYSTEM (Cont'd.)	*Ft.*			*Ft.*	
Lower Mississippi Basin (Cont'd.)					
St. Francis (Cont'd.): St.Francis, Ark.	18	Jan. 29 26	6 Mar. 12	20.3 20.8	Jan. 31 Mar. 4-5
Coldwater: Sarah, Miss.	18	23	24	20.7	23
Tallahatchie: Swan Lake, Miss.	26	Jan. 5 26	10 28	28.2 27.5	Jan. 31 28
Yazoo: Yazoo City, Miss.	29	Dec. 15	13	33.0 32.9	Dec. 27 Jan.1,6,15
Big Black: Pickens, Miss.	16	Jan. 7 23	5 28	18.8 16.8	Jan. 29 23
Bovina, Miss.	28	Jan. 15	11	37.5	1
WEST GULF OF MEXICO DRAINAGE					
Calcasieu: Hineston, La.	12	Jan. 29	1	12.4	Jan. 29
Sabine: Deweyville, Tex.	14	Jan. 30	23		

River and station	Flood stage	Above flood stages -dates		Crest	
		From–	To–	Stage	Date
PACIFIC SLOPE DRAINAGE	*Ft.*			*Ft*	
Consumnes: McConnell, Calif.	40	11	11	41.2	11
Sacramento: Moulton Weir, Calif.	77	15	17	79.3	16
Colusa Weir, Calif.	62	11 13	11 21	62.0 66.6	11 16
Tisdale Weir, Calif.	45	10	23	47.4 48.3 49.6	11 15 16
Fremont Weir, Calif.	33	11	23	35.2 36.3	11 16
Russian: Guerneville, Calif.	29	13	16	36.0 34.5	13 15
Henry's Fork: Rexburg (NR), Idaho	8	12	16	10.0	12
Black Foot: Black Foot (NR), Idaho				7.35 7.1	12 13
Portneuf: Pocatello, Idaho	6	10	21	11.25	14

*	Provisional
E	Estimated
T	Tentative
#	Highest stage observed
1.	Continued at end of month
Ḡ	Gage out of order
R	Record high stage

RAWINSONDE DATA

Average monthly values

FEBRUARY 1962

ALBANY, N. Y. (1009 MB.)

Standard pressure surface (mb.)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind Direction	Wind Speed
SURFACE	28	[illegible]	- 8.6	76	291	2.7
1,000	28	152	- 8.7	[illegible]	317	2.1
950	28	551	- 8.3	71	261	3.3
900	28	971	- 8.5	69	257	8.5
850	28	1,414	- 9.3	69	256	13.8
800	28	1,883	- 9.4	67	262	19.6
750	28	2,380	-10.3	57	262	24.7
700	28	2,911	-12.0	56	266	31.1
650	28	3,475	-14.2	54	267	37.3
600	28	4,082	-17.1	48	264	42.6
550	28	4,727	-20.6	43	266	46.8
500	28	5,431	-24.7	40	270	50.9
450	28	6,186	-29.8		271	56.2
400	28	7,023	-35.7		271	59.5
350	28	7,939	-42.4		271	65.3
300	28	8,967	-48.0		271	69.0
250	28	10,155	-53.1		270	71.3
200	27	11,576	-54.2		273	63.1
175	27	12,435	-53.1		276	62.0
150	27	13,429	-53.1		274	55.8
125	25	14,602	-53.2		270	49.2
100	25	16,031	-55.4		268	48.2
80	24	17,451	-56.0		268	47.2
70	24	18,301	-56.0		268	45.5
60	24	19,280	-55.4		268	37.7
50	24	20,442	-55.5		268	26.8
40	22	21,873	-54.5		272	21.4
30	19	23,723	-53.7		295	16.1
25	17	24,894	-53.1		326	14.2
20	14	26,324	-51.5		3	16.7
15	11	28,290	-50.2			
10						

ALBUQUERQUE, N. MEX. (836 MB.)

Standard pressure surface (mb.)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind Direction	Wind Speed
SURFACE	28	1,619	0.5	67		0.0
1,000	28	159				
950	28	575				
900	28	1,019				
850	28	1,486				
800	28	1,976	3.0	48	269	8.0
750	28	2,491	- .1	51	273	12.6
700	28	3,046	- 3.8	52	267	18.5
650	28	3,623	- 7.3	47	266	26.6
600	28	4,247	-11.0	38	265	31.9
550	28	4,905	-15.2		264	37.5
500	28	5,625	-19.9		261	43.1
450	28	6,394	-25.3		262	45.7
400	28	7,245	-31.2		264	46.6
350	28	8,178	-38.1		259	45.5
300	28	9,222	-45.2		263	47.6
250	28	10,422	-51.2		265	39.4
200	28	11,864	-53.2		267	49.5
175	28	12,723	-54.1		269	50.3
150	28	13,708	-56.2		274	49.9
125	28	14,855	-60.6		271	45.1
100	28	16,230	-64.7		275	40.2
80	27	17,588	-64.8		282	23.7
70	27	18,406	-63.6		302	10.9
60	25	19,356	-61.5		334	3.3
50	25	20,492	-59.3		22	5.2
40	25	21,895	-57.6		75	14.0
30	24	23,717	-55.7		75	20.6
25	21	24,878	-54.6		74	21.4
20	21	26,311	-53.1		82	27.8
15	14	28,149	-52.2		78	25.3
10	10	30,805	-48.8			

AMARILLO, TEXAS (889 MB.)

Standard pressure surface (mb.)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind Direction	Wind Speed
SURFACE	28	1,095	0.9	65	242	3.9
1,000	28	134				
950	28	555				
900	28	997				
850	28	1,459	5.4	46	267	11.7
800	28	1,955	5.7	40	263	18.7
750	28	2,480	3.4	37	264	22.5
700	28	3,037	- .4	36	261	22.5
650	28	3,620	- 4.3	34	261	25.8
600	28	4,252	- 8.2		259	29.0
550	28	4,918	-12.4		258	34.4
500	28	5,644	-17.6		260	38.5
450	28	6,421	-23.6		259	43.9
400	28	7,275	-30.0		260	50.1
350	28	8,212	-36.9		261	54.8
300	28	9,262	-44.4		258	62.6
250	28	10,463	-51.4		259	67.4
200	28	11,901	-54.0		261	67.8
175	27	12,758	-55.2		263	67.8
150	25	13,736	-56.9		262	61.4
125	24	14,887	-60.7		266	55.4
100	22	16,258	-64.0		265	43.7
80	21	17,620	-65.1		262	34.4
70	20	18,444	-64.0		267	20.8
60	19	19,396	-61.2		269	10.1
50	18	20,541	-59.5		36	2.5
40	16	21,948	-57.7		73	6.2
30	12	23,731	-56.0		68	13.0
25	11	24,900	-54.7		69	18.3
20	9	26,307	-52.8			

ANCHORAGE, ALASKA (1015 MB.)

Standard pressure surface (mb.)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind Direction	Wind Speed
SURFACE	28	29	- 7.4	82		0.0
1,000	28	143			338	1.2
950	28	548	- 3.6	62	3	2.9
900	28	974	- 4.3	60	150	.8
850	28	1,423	- 5.8	61	136	2.1
800	28	1,897	- 7.2	58	206	3.3
750	28	2,397	- 9.4	56	218	8.4
700	28	2,929	-12.3	52	230	12.0
650	28	3,489	-15.2	50	241	13.2
600	28	4,093	-19.1	47	247	17.3
550	28	4,731	-23.1	43	250	18.8
500	28	5,426	-27.8	41	254	21.8
450	28	6,170	-33.2	39	251	21.4
400	28	6,993	-39.3		244	20.6
350	28	7,894	-45.7		242	23.7
300	28	8,906	-52.1		251	23.7
250	28	10,078	-54.6		253	22.3
200	28	11,507	-53.6		255	22.7
175	28	12,368	-52.3		256	21.8
150	28	13,368	-50.8		258	20.6
125	28	14,560	-49.2		259	21.2
100	28	16,022	-49.2		267	19.4
80	28	17,489	-48.5		264	17.5
70	27	18,373	-48.1		265	19.0
60	27	19,384	-47.3		270	18.8
50	27	20,590	-47.3		278	18.7
40	27	22,069	-46.6		285	17.9
30	26	23,977	-46.0		291	15.5
25	25	25,199	-45.9		288	15.2
20	18	26,707	-45.5		301	19.2

ANNETTE, ALASKA (1012 MB.)

Standard pressure surface (mb.)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind Direction	Wind Speed
SURFACE	28	37	1.1	67	358	4.1
1,000	28	131			359	6.4
950	28	540	- .3	56	14	6.6
900	28	975	- 2.5	59	12	6.0
850	28	1,427	- 3.5	52	6	3.7
800	28	1,905	- 5.7	47	360	5.1
750	28	2,406	- 8.4	45	357	4.1
700	28	2,941	-11.2	40	338	8.0
650	28	3,500	-14.6	39	329	12.8
600	28	4,108	-18.1		328	17.1
550	28	4,746	-22.3		325	17.3
500	28	5,447	-27.1	39	326	21.2
450	28	6,193	-32.4	41	321	23.1
400	28	7,019	-38.6		318	26.0
350	28	7,924	-45.2		323	29.3
300	28	8,937	-51.8		319	25.6
250	28	10,104	-55.7		308	18.7
200	28	11,527	-54.3		302	21.6
175	28	12,386	-52.5		304	20.2
150	28	13,386	-51.0		305	20.4
125	28	14,573	-50.7		306	17.7
100	28	16,025	-50.8		305	14.2
80	26	17,471	-49.6		313	14.0
70	26	18,349	-49.1		320	11.3
60	26	19,358	-48.9		330	10.9
50	25	20,548	-49.2		338	12.2
40	24	22,019	-49.0		350	11.3
30	23	23,903	-48.7		1	13.8
25	23	25,101	-48.4		15	16.5
20	19	26,537	-48.6		14	20.8
15	10	28,284	-49.2			

ATHENS, GA. (989 MB.)

Standard pressure surface (mb.)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind Direction	Wind Speed
SURFACE	28	246	5.1	86	30	1.4
1,000	28	151				
950	28	574	8.5	63	258	4.9
900	28	1,023	9.2	56	259	16.5
850	28	1,496	7.9	54	265	23.3
800	28	1,994	5.6	55	266	26.8
750	28	2,518	3.4	49	268	30.1
700	28	3,078	.8	43	268	30.9
650	28	3,669	- 2.5	42	269	33.8
600	28	4,302	- 6.3	38	270	41.4
550	28	4,971	-10.8	39	267	41.4
500	28	5,703	-15.7		268	44.9
450	27	6,482	-21.5		271	48.0
400	27	7,347	-27.9		270	52.5
350	27	8,292	-35.2		274	51.5
300	27	9,349	-43.2		271	64.7
250	27	10,555	-51.1		272	71.5
200	27	11,991	-55.3		273	76.4
175	27	12,840	-57.1		274	75.0
150	27	13,813	-58.6		274	70.7
125	27	14,948	-62.7		274	60.8
100	27	16,310	-67.2		274	49.9
80	27	17,654	-67.3		273	35.6
70	27	18,469	-66.1		275	27.0
60	27	19,402	-63.3		277	16.7
50	27	20,529	-60.6		278	8.9
40	26	21,923	-58.1		296	3.5
30	22	23,742	-56.0		50	4.1
25	16	24,912	-54.7		64	5.1
20	12	26,357	-52.5			
15	7	28,223	-50.3			

BARROW, ALASKA (1019 MB.)

Standard pressure surface (mb.)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind Direction	Wind Speed
SURFACE	28	8	-21.2	67	126	4.1
1,000	28	149	-18.3	67	133	5.2
950	28	535	-15.8	70	142	4.5
900	28	943	-13.9	70	181	2.7
850	28	1,377	-14.4	66	225	5.1
800	28	1,836	-15.0	60	239	8.0
750	28	2,323	-16.9	59	250	9.1
700	28	2,839	-19.2	55	247	9.1
650	28	3,383	-22.2	51	258	10.1
600	28	3,971	-25.7	52	265	11.1
550	28	4,591	-29.5	51	276	15.5
500	28	5,271	-33.8	48	276	16.1
450	28	5,999	-38.6		276	17.5
400	28	6,803	-44.0		274	21.4
350	28	7,688	-49.5		271	25.3
300	28	8,686	-54.4		271	29.1
250	28	9,845	-57.3		270	32.6
200	28	11,261	-55.5		264	36.7
175	28	12,114	-54.2		264	41.6
150	27	13,106	-52.5		263	40.8
125	27	14,286	-51.7		262	47.4
100	27	15,736	-50.9		263	54.0
80	27	17,192	-49.7		263	56.3
70	27	18,074	-49.0		265	60.4
60	25	19,074	-47.8		266	65.7
50	24	20,286	-46.6		269	67.8
40	22	21,785	-45.5		268	67.4
30	20	23,745	-44.7		266	69.9
25	14	24,955	-44.1		269	72.5
20	8	26,483	-42.1			

BARTER IS., ALASKA (1019 MB.)

Standard pressure surface (mb.)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind Direction	Wind Speed
SURFACE	27	15	-20.9	66	95	4.7
1,000	27	157	-18.5	70	102	3.5
950	27	542	-15.2	68	135	1.7
900	27	953	-13.1	62	282	5.2
850	27	1,388	-13.6	61	287	8.2
800	27	1,848	-15.1	64	283	6.6
750	27	2,335	-17.2	64	292	8.2
700	27	2,850	-19.6	62	298	11.1
650	27	3,394	-22.6	61	295	12.4
600	27	3,981	-26.2	61	295	15.5
550	27	4,600	-29.9	56	300	20.0
500	27	5,279	-33.9	50	291	23.9
450	27	6,006	-38.6		301	27.2
400	27	6,813	-43.9		293	27.6
350	27	7,699	-49.1		293	29.0
300	27	8,699	-53.4		292	34.2
250	27	9,866	-55.5		291	40.4
200	27	11,292	-53.8		287	43.5
175	27	12,152	-52.5		287	45.9
150	27	13,149	-52.0		282	47.2
125	27	14,332	-51.1		284	53.4
100	27	15,784	-50.6		286	59.5
80	25	17,240	-49.4		286	64.3
70	25	18,116	-48.7		287	65.5
60	25	19,131	-48.2		287	66.1
50	25	20,333	-47.9		283	66.3
40	25	21,807	-47.6		284	63.9
30	25	23,711	-46.6		286	61.4
25	23	24,895	-46.7		287	65.7
20	16	26,339	-46.7			

BETHEL, ALASKA (1009 MB.)

Standard pressure surface (mb.)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind Direction	Wind Speed
SURFACE	28	39	- 7.8	82	109	5.1
1,000	28	110			131	7.2
950	28	514	- 3.6	72	159	11.5
900	28	942	- 4.9	70	176	11.7
850	28	1,390	- 6.6	65	184	13.6
800	28	1,863	- 7.8	56	187	13.8
750	28	2,356	-10.4	53	190	14.6
700	28	2,891	-13.2	49	195	15.9
650	28	3,444	-16.5	44	196	17.9
600	28	4,050	-20.1	43	199	20.4
550	28	4,683	-24.2		202	24.5
500	28	5,380	-28.9		208	25.8
450	28	6,116	-34.3		214	28.4
400	28	6,941	-40.0		211	31.3
350	28	7,841	-46.1		214	32.6
300	28	8,852	-52.3		214	32.4
250	28	10,023	-54.9		218	31.1
200	28	11,455	-52.6		218	29.3
175	28	12,321	-51.3		214	26.4
150	28	13,327	-49.5		221	27.2
125	28	14,525	-48.5		226	24.7
100	28	15,995	-48.1		229	21.2
80	28	17,468	-47.4		234	19.4
70	28	18,351	-46.8		235	19.2
60	28	19,375	-46.4		241	18.1
50	27	20,592	-46.1		239	16.5
40	27	22,077	-45.7		250	15.2
30	24	24,003	-45.6		248	10.7
25	23	25,232	-45.0		239	8.5
20	20	26,732	-44.8		226	8.7
15	14	28,631	-45.3			

BISMARCK, N. DAK. (957 MB.)

Standard pressure surface (mb.)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind Direction	Wind Speed
SURFACE	28	505	-13.8	82	5	2.1
1,000	28	171				
950	28	561			21	3.5
900	28	975	-11.4	71	311	8.2
850	28	1,413	-10.6	72	298	12.6
800	28	1,879	-11.3	69	290	17.5
750	28	2,374	-12.4	63	294	22.9
700	28	2,900	-14.0	55	294	24.3
650	28	3,455	-16.9	54	292	29.1
600	28	4,057	-19.9	52	288	34.8
550	28	4,691	-23.7	50	283	39.4
500	28	5,388	-28.3	52	281	42.9
450	28	6,132	-33.5	52	281	51.1
400	28	6,954	-39.2		280	58.5
350	28	7,856	-45.8		279	64.7
300	28	8,867	-52.1		277	67.8
250	28	10,037	-54.6		283	63.5
200	28	11,470	-52.7		274	58.7
175	28	12,334	-51.5		273	59.1
150	28	13,335	-51.2		273	54.8
125	28	14,517	-51.9		273	49.7
100	28	15,957	-53.4		277	45.7
80	28	17,391	-53.7		281	35.4
70	28	18,258	-53.4		289	31.7
60	27	19,240	-53.0		293	25.1
50	27	20,416	-52.6		300	20.8
40	26	21,873	-52.3		352	15.2
30	20	23,757	-51.6		359	16.9
25	18	24,948	-51.3		22	20.2
20	14	26,450	-50.5			

BOISE, IDAHO (915 MB.)

Standard pressure surface (mb.)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind Direction	Wind Speed
SURFACE	28	868	- 1.8	81	140	2.9
1,000	28	151				
950	28	559				
900	28	996	- 1.9	75	135	3.5
850	28	1,451	- 1.5	69	190	2.7
800	28	1,933	- 3.2	64	267	5.6
750	28	2,441	- 5.9	63	269	9.3
700	28	2,979	- 9.2	62	268	11.5
650	28	3,545	-12.8	62	271	15.0
600	28	4,155	-16.2	61	267	16.3
550	28	4,802	-20.6	59	263	18.8
500	28	5,503	-25.5	54	267	20.0
450	27	6,259	-30.6	49	264	28.8
400	27	7,094	-36.6		264	31.5
350	27	8,006	-43.8		272	36.9
300	27	9,025	-50.3		266	37.7
250	27	10,205	-53.8		275	39.8
200	27	11,641	-53.2		282	33.2
175	27	12,503	-52.3		280	33.4
150	27	13,499	-52.6		288	32.6
125	27	14,676	-53.4		287	29.9
100	26	16,100	-54.5		293	26.0
80	26	17,526	-55.1		300	16.9
70	26	18,383	-54.8		311	13.4
60	26	19,366	-54.1		329	10.1
50	25	20,534	-53.5		353	8.2
40	23	21,964	-53.0		15	10.1
30	20	23,837	-51.5		55	19.0
25	13	25,065	-50.4			
20						
15						
10						
7						

BROWNSVILLE, TEXAS (1013 MB.)

Standard pressure surface (mb.)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind Direction	Wind Speed
SURFACE	28	7	18.1	95	154	4.1
1,000	28	115	18.5	89	151	6.2
950	28	556	17.7	76	179	16.5
900	28	1,018	17.2	62	185	16.7
850	28	1,505	16.1	42	201	13.2
800	28	2,018	13.5	36	216	11.3
750	28	2,555	10.3	29	231	12.2
700	28	3,129	6.6	29	253	15.0
650	28	3,726	2.7		255	17.9
600	28	4,375	- 1.7		256	21.6
550	28	5,053	- 6.2		262	26.2
500	28	5,802	-11.1		264	30.9
450	28	6,595	-16.5		258	35.4
400	28	7,478	-23.0		256	41.8
350	28	8,442	-29.8		257	50.1
300	28	9,524	-37.8		259	55.0
250	27	10,763	-46.3		259	58.9
200	27	12,218	-54.5		258	57.9
175	27	13,065	-59.0		256	55.6
150	27	14,023	-63.1		258	49.5
125	27	15,130	-68.4		256	41.2
100	26	16,450	-74.3		257	29.3
80	24	17,745	-75.8		259	19.0
70	22	18,530	-73.7		246	9.9
60	21	19,431	-68.2		178	1.9
50	18	20,532	-64.3		95	6.8
40	18	21,909	-60.4		84	9.1
30	17	23,728	-56.0		86	16.3
25	15	24,893	-53.8		86	22.0
20	14	26,338	-51.7		79	21.8
15	11	28,223	-48.6			
10	9	30,938	-42.7			
7	6	33,347	-39.3			

BUFFALO, N. Y. (991 MB.)

Standard pressure surface (mb.)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind Direction	Wind Speed
SURFACE	28	218	- 6.5	77	196	1.2
1,000	28	147				
950	28	547	- 7.1	75	207	5.1
900	28	966	- 7.7	73	240	10.7
850	28	1,409	- 8.7	71	254	15.9
800	28	1,879	- 9.1	66	264	19.4
750	28	2,374	-10.0	57	267	23.7
700	28	2,909	-11.8	54	268	28.8
650	28	3,473	-14.3	49	271	32.3
600	28	4,077	-17.1	46	274	37.9
550	28	4,719	-20.7	43	274	41.8
500	28	5,425	-25.1		272	48.4
450	28	6,174	-30.1	43	272	54.6
400	28	7,011	-36.0		269	61.0
350	28	7,927	-42.2		269	72.7
300	28	8,957	-48.5		268	83.4
250	27	10,132	-52.9		268	85.5
200	26	11,569	-53.0		268	75.8
175	25	12,426	-52.5		267	73.4
150	25	13,423	-52.7		269	68.6
125	25	14,600	-53.5		270	62.2
100	22	16,018	-54.8		268	50.7
80	21	17,430	-56.0		267	41.6
70	21	18,274	-56.2		266	36.5
60	20	19,259	-56.5		268	32.3
50	19	20,417	-55.5		266	26.2
40	18	21,848	-54.2		276	23.3
30	15	23,719	-53.2		280	16.1
25	15	24,894	-53.1		282	14.8
20	11	26,364	-52.4		280	13.2
15	9	28,247	-51.1			

BURRWOOD, LA. (1017 MB.)

Standard pressure surface (mb.)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind Direction	Wind Speed
SURFACE	28	3	15.0	93	181	1.9
1,000	28	145	17.1	80	176	3.3
950	28	582	15.6	70	193	9.9
900	28	1,040	14.3	59	217	12.6
850	28	1,522	12.1	52	234	14.8
800	28	2,028	9.8	43	240	15.5
750	28	2,560	6.8	37	250	15.9
700	28	3,125	4.2	29	263	19.0
650	28	3,719	.8		265	21.8
600	28	4,363	- 3.3		260	24.3
550	28	5,035	- 7.4		263	27.6
500	28	5,782	-12.2		262	31.3
450	28	6,571	-17.9		262	37.5
400	28	7,450	-24.4		267	44.1
350	28	8,409	-31.3		266	48.2
300	28	9,483	-39.1		268	61.2
250	28	10,713	-47.0		266	68.0
200	28	12,165	-54.7		264	71.3
175	28	13,014	-57.6		263	70.5
150	27	13,980	-61.8		265	63.7
125	27	15,095	-66.7		267	54.6
100	26	16,424	-71.9		269	43.3
80	24	17,734	-72.2		272	27.2
70	24	18,528	-71.4		278	15.7
60	23	19,443	-67.0		275	6.0
50	22	20,558	-62.5		96	1.4
40	20	21,942	-59.2		78	5.6
30	20	23,759	-55.6		74	12.2
25	18	24,929	-54.0		83	17.3
20	14	26,372	-51.5		92	6.6
15	12	28,251	-46.8		205	1.4
10	9	30,949	-42.3			
7	6	33,337	-37.6			

CANTON IS., PACIFIC AREA (1010 MB.)

Standard pressure surface (mb.)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind Direction	Wind Speed
SURFACE	28	4	25.9	76	70	8.9
1,000	28	89	25.5	78	70	11.1
950	28	538	22.1	81	68	16.3
900	28	1,009	19.0	79	70	17.1
850	28	1,500	17.4	59	72	14.6
800	28	2,017	16.5	34	70	9.3
750	28	2,564	13.7	29	78	7.4
700	28	3,140	10.1	33	82	8.4
650	28	3,748	6.4	34	89	9.9
600	28	4,405	2.5	36	91	11.3
550	28	5,098	- .7		97	10.3
500	28	5,860	- 5.0		96	8.7
450	28	6,680	- 9.5		75	10.3
400	28	7,584	-15.1		73	6.2
350	28	8,580	-22.1		96	7.4
300	28	9,695	-30.5		111	11.9
250	28	10,963	-40.7		131	19.2
200	28	12,444	-52.7		135	24.1
175	28	13,292	-59.5		130	14.6
150	28	14,239	-67.2		136	9.7
125	28	15,315	-75.3		37	5.2
100	27	16,582	-83.1		128	3.7
80	26	17,816	-83.7		109	4.9
70	24	18,573	-74.9		259	7.2
60	22	19,477	-70.3		264	18.3
50	20	20,571	-66.7		271	21.2
40	20	21,938	-62.0		272	20.0
30	20	23,727	-59.9		254	13.4
25	19	24,868	-58.4		185	2.1
20	19	26,286	-54.8		94	29.3
15	15	28,134	-51.9		90	51.7

See reference note at end of table

RAWINSONDE DATA

Average monthly values

FEBRUARY 1962

CAPE HATTERAS, N. C. (1017 MB.)

Standard pressure surface (mb)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind	
					Direction	Speed
SURFACE	28	4	7.3	86	345	3.3
1,000	28	143	8.4	79	322	3.3
950	28	563	7.1	73	267	7.2
900	28	1,011	6.1	66	267	12.6
850	28	1,479	5.1	57	264	19.2
800	28	1,973	3.4	53	266	25.1
750	28	2,494	1.0	55	269	29.5
700	28	3,047	- 1.8	51	272	33.2
650	28	3,628	- 5.0	44	273	38.5
600	28	4,259	- 8.6	40	271	42.6
550	28	4,922	-12.6	39	271	47.8
500	28	5,650	-17.2	40	274	52.8
450	28	6,426	-22.9	40	273	56.2
400	28	7,285	-29.2	42	275	63.1
350	28	8,226	-36.3	39	275	69.6
300	28	9,277	-44.4		274	74.8
250	28	10,478	-51.7		275	78.7
200	28	11,913	-55.1		273	84.3
175	28	12,764	-55.7		276	82.8
150	28	13,743	-57.3		275	76.7
125	28	14,886	-60.6		273	64.1
100	28	16,264	-64.0		273	55.6
80	28	17,630	-64.0		277	32.4
70	28	18,456	-63.1		276	22.5
60	28	19,403	-61.2		274	12.2
50	28	20,542	-58.8		307	7.2
40	27	21,949	-56.8		35	3.1
30	27	23,782	-54.9		59	6.6
25	26	24,952	-53.3		59	7.6
20	22	26,401	-51.4		64	12.0
15	17	28,306	-47.6		71	12.4
10	13	31,021	-43.4			
7						

CARIBOU, ME. (996 MB.)

Standard pressure surface (mb)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind	
					Direction	Speed
SURFACE	28	191	-16.9	73	300	3.3
1,000	28	159			17	3.9
950	28	546	-15.1	65	309	3.9
900	28	956	-14.1	59	292	6.0
850	28	1,390	-14.1	52	280	11.1
800	28	1,850	-14.5	51	277	14.6
750	28	2,336	-15.7	50	274	18.8
700	28	2,857	-17.3	50	270	22.7
650	28	3,407	-19.9	47	271	27.2
600	28	4,001	-22.5	45	268	33.2
550	28	4,634	-26.0	46	267	38.3
500	28	5,321	-30.2		265	41.6
450	28	6,061	-34.8		264	46.0
400	28	6,878	-39.8		262	52.8
350	27	7,785	-44.9		260	62.2
300	27	8,806	-49.4		263	69.0
250	27	9,992	-52.0		264	69.9
200	27	11,440	-51.2		264	62.8
175	27	12,309	-50.4		264	57.5
150	26	13,309	-50.5		266	55.0
125	26	14,497	-51.1		266	51.9
100	25	15,950	-52.9		267	48.0
80	25	17,388	-53.4		266	39.6
70	25	18,250	-53.2		268	35.9
60	25	19,243	-53.1		268	32.3
50	25	20,418	-53.4		276	21.6
40	24	21,850	-53.0		285	26.4
30	24	23,709	-52.6		290	22.7
25	24	24,889	-51.8		289	21.2
20	21	26,357	-51.8		304	17.9
15	19	28,236	-49.9		317	21.2
10	17	30,906	-45.9		319	26.6
7	15	33,289	-45.2		329	30.7

CHARLESTON, S. C. (1017 MB.)

Standard pressure surface (mb)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind	
					Direction	Speed
SURFACE	28	13	8.8	82	31	0.8
1,000	28	150	10.8	75	197	.6
950	28	577	12.1	62	238	8.4
900	28	1,032	10.5	56	250	14.4
850	28	1,507	8.9	49	255	20.0
800	28	2,007	6.6	46	261	23.1
750	28	2,531	3.6	47	264	26.2
700	28	3,093	.9	40	268	28.0
650	28	3,681	- 2.2	[illegible]	269	34.2
600	28	4,317	- 6.0	38	271	38.1
550	28	4,986	-10.4		271	40.8
500	28	5,720	-15.4	36	275	44.1
450	28	6,498	-20.9		275	49.5
400	28	7,367	-27.5		276	53.6
350	28	8,314	-34.9		276	57.3
300	28	9,371	-42.9		279	65.3
250	28	10,580	-50.8		274	75.4
200	28	12,018	-54.9		274	83.5
175	28	12,868	-56.7		272	83.2
150	28	13,840	-59.6		273	78.5
125	28	14,970	-63.6		272	68.8
100	28	16,327	-67.4		273	49.7
80	28	17,669	-67.8		272	35.4
70	28	18,479	-66.2		277	23.5
60	28	19,416	-63.6		288	12.2
50	26	20,537	-60.7		335	4.1
40	26	21,934	-58.1		46	5.6
30	23	23,756	-55.2		75	9.7
25	22	24,925	-53.4		75	13.4
20	22	26,368	-51.1		84	15.0
15	17	28,255	-47.5		81	11.5
10						
7						

COLD BAY, ALASKA (1006 MB.)

Standard pressure surface (mb)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind	
					Direction	Speed
SURFACE	28	30	0.3	89	153	13.4
1,000	28	80			151	16.5
950	28	494	- .3	79	152	19.2
900	28	922	- 1.8	72	153	18.3
850	28	1,376	- 3.4	64	161	18.1
800	28	1,854	- 5.5	58	169	14.6
750	28	2,356	- 7.6	52	179	15.9
700	28	2,892	-10.5	46	179	19.2
650	28	3,453	-14.2	47	180	22.0
600	28	4,061	-17.8	51	184	22.3
550	28	4,701	-21.8	51	187	23.1
500	[illegible]	5,403	-26.8	[illegible]	189	24.3
450	28	6,148	-31.9	47	192	29.0
400	28	6,980	-38.2		198	29.0
350	28	7,885	-44.8		201	29.5
300	28	8,900	-51.5		196	35.0
250	28	10,072	-54.4		196	34.4
200	27	11,505	-53.1		196	29.7
175	[illegible]	12,369	-51.1		202	27.6
150	[illegible]	13,375	-49.3		202	21.8
125	26	14,569	-47.8		209	15.2
100	26	16,039	-48.3		208	13.6
80	25	17,509	-47.5		205	12.2
70	25	18,396	-47.4		193	10.3
60	24	19,412	-47.4		186	11.5
50	24	20,619	-47.0		175	10.1
40	21	22,097	-46.5		[illegible]	7.0
30	21	24,011	-46.1		137	7.0
25	19	25,225	-46.1		119	8.0
20	13	26,691	-46.0			
15	5	28,570	-46.4			
10						
7						

COLUMBIA, MO. (987 MB.)

Standard pressure surface (mb)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind	
					Direction	Speed
SURFACE	28	238	- 1.5	86	16	1.6
1,000	28	136				
950	28	543	- 1.1	73	234	2.7
900	28	976	.2	68	267	10.1
850	28	1,435	1.1	60	280	18.3
800	28	1,922	.2	53	283	21.6
750	28	2,436	- 2.0	49	277	25.6
700	[illegible]	[illegible]	- 4.7	46	274	31.9
650	28	3,559	- 8.3	[illegible]	274	37.3
600	28	4,180	-12.1	46	272	43.5
550	28	4,839	-16.2	[illegible]	270	48.0
500	28	5,552	-20.9		268	52.8
450	28	6,316	-26.4		270	53.4
400	28	7,164	-32.3		270	61.6
350	28	8,094	-38.6		271	65.1
300	28	9,137	-45.7		275	68.8
250	28	10,331	-52.7		274	76.2
200	27	11,757	-54.4		279	77.5
175	[illegible]	12,613	-54.3		[illegible]	[illegible]
150	27	13,598	-56.0		279	69.4
125	27	14,751	-58.1		[illegible]	55.2
100	26	16,154	-60.1		284	44.9
80	25	17,530	-61.5		285	32.6
70	25	18,363	-60.3		[illegible]	23.9
60	25	19,321	-59.6		290	17.5
50	23	20,461	-58.2		310	12.4
40	22	21,864	-56.7		356	8.4
30	21	23,705	-55.3		26	8.5
25	18	24,873	-54.5		58	5.8
20	14	26,300	-53.7			
15	8	28,078	-52.3			
10						
7						

DAYTON, OHIO (982 MB.)

Standard pressure surface (mb)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind	
					Direction	Speed
SURFACE	28	297	- 3.0	78	346	1.0
1,000	28	148				
950	28	555	- 3.4	78	279	2.1
900	28	983	- 3.0	71	268	9.7
850	28	1,437	- 2.1	64	274	17.9
800	28	1,919	- 2.5	57	271	24.1
750	28	2,429	- 4.1	48	273	28.6
700	28	2,973	- 6.6	42	273	32.8
650	28	3,545	- 9.6	39	273	36.3
600	28	4,164	-13.0	41	272	44.7
550	28	4,816	-16.8	42	271	51.3
500	28	5,534	-20.8	44	269	56.7
450	28	6,298	-25.9	44	266	62.6
400	28	7,149	-32.0		265	69.4
350	28	8,079	-38.7		264	75.4
300	28	9,121	-46.3		260	83.5
250	28	10,314	-53.1		260	87.6
200	28	11,745	-54.3		270	78.9
175	28	12,601	-54.5		271	78.3
150	27	13,579	-55.1		271	72.5
125	26	14,740	-57.4		273	59.7
100	26	16,145	-59.1		273	44.5
80	26	17,542	-59.8		274	36.5
70	26	18,378	-59.6		277	28.6
60	24	19,342	-59.0		285	19.2
50	24	20,489	-57.5		296	15.9
40	23	21,909	-56.0		292	15.2
30	22	23,744	-54.7		288	9.5
25	20	24,935	-54.0		331	4.7
20	18	26,360	-52.8		331	6.4
15	14	28,243	-51.7		340	3.5
10	5	30,836	-49.7			
7						

DENVER, COLO. (883 MB.)

Standard pressure surface (mb)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind	
					Direction	Speed
SURFACE	28	1,611	- 4.4	69	209	2.5
1,000	28	149				
950	28	564				
900	28	999				
850	28	1,453				
800	28	1,936	- .8	54	245	3.5
750	28	2,454	- 2.2	49	277	8.2
700	28	2,997	- 4.4	48	276	15.0
650	28	3,576	- 7.8	46	275	22.7
600	28	4,195	-12.1	42	282	27.6
550	28	4,853	-16.6	39	280	28.4
500	28	5,565	-21.6	35	272	30.9
450	28	6,328	-27.2		269	33.6
400	28	7,171	-33.8		264	36.1
350	28	8,093	-40.9		258	42.2
300	28	9,125	-47.8		264	54.0
250	28	10,314	-52.6		264	57.7
200	28	11,750	-53.9		262	60.0
175	28	12,606	-54.7		264	59.8
150	28	13,592	-55.0		265	59.1
125	28	14,751	-57.0		267	48.2
100	28	16,157	-58.7		265	37.7
80	28	17,557	-59.5		267	32.1
70	28	18,401	-58.5		266	22.7
60	28	19,371	-56.7		274	11.9
50	28	20,528	-56.3		314	4.9
40	28	21,947	-55.1		351	4.7
30	28	23,788	-54.4		59	10.5
25	28	24,960	-53.4		61	12.6
20	26	26,409	-52.4		65	20.6
15	21	28,297	-50.6		77	21.8
10						
7						

DODGE CITY, KANS. (923 MB.)

Standard pressure surface (mb)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind	
					Direction	Speed
SURFACE	28	792	- 2.0	73	298	2.3
1,000	28	146				
950	28	560				
900	28	991	1.6	53	269	3.7
850	28	1,453	3.3	44	269	7.2
800	28	1,944	2.8	42	262	12.4
750	28	2,468	1.0	42	268	18.3
700	28	3,017	- 2.2	43	266	22.5
650	28	3,599	- 6.2	41	267	25.8
600	28	4,223	-10.6	37	265	27.6
550	28	4,884	-14.9	33	263	31.3
500	28	5,603	-19.4		265	34.4
450	28	6,374	-25.1		259	38.3
400	28	7,224	-31.6		260	42.4
350	27	8,154	-38.6		262	46.4
300	27	9,197	-45.9		260	53.0
250	27	10,393	-52.3		258	56.7
200	27	11,825	-54.2		260	63.3
175	27	12,681	-54.8		262	63.1
150	27	13,664	-56.2		264	60.6
125	25	14,829	-58.5		266	54.4
100	23	16,228	-62.0		268	40.2
80	23	17,605	-62.3		269	34.4
70	23	18,443	-61.4		269	23.7
60	23	19,389	-60.1		271	17.1
50	21	20,531	-58.4		297	8.2
40	20	21,932	-56.8		15	8.9
30	19	23,771	-55.1		51	13.2
25	18	24,935	-54.1		55	16.1
20	17	26,373	-53.0		63	20.4
15	12	28,223	-51.8		68	22.5
10						
7						

EL PASO, TEXAS (881 MB)

Standard pressure surface (mb)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind	
					Direction	Speed
SURFACE	28	1,193	7.0	55	262	2.7
1,000	28	135				
950	28	566				
900	28	1,023				
850	28	1,494	9.6	35	271	8.0
800	28	1,995	6.9	34	269	15.0
750	28	2,521	3.7	34	260	21.2
700	28	3,080	.4	31	256	24.9
650	28	3,664	- 3.2		257	29.1
600	28	4,300	- 7.1		255	29.9
550	28	4,964	-11.6		256	33.4
500	28	5,698	-16.6		255	36.3
450	28	6,475	-22.2		255	45.3
400	28	7,340	-28.6		252	49.4
350	28	8,283	-35.7		252	51.5
300	28	9,341	-42.7		252	56.3
250	28	10,553	-49.4		256	66.5
200	28	12,001	-53.7		257	71.9
175	28	12,856	-55.5		256	70.1
150	27	13,836	-58.7		260	63.3
125	26	14,972	-63.1		262	50.1
100	26	16,330	-67.9		264	42.4
80	26	17,664	-69.4		274	26.4
70	25	18,469	-68.3		283	14.2
60	23	19,390	-65.4		312	4.5
50	22	20,515	-61.6		69	6.4
40	22	21,905	-59.3		80	8.7
30	22	23,716	-57.3		76	16.3
25	20	24,878	-55.6		77	23.1
20	18	26,316	-54.1		82	31.3
15	14	28,181	-52.6		86	31.5
10	14	30,819	-49.3		83	27.6
7	6	33,198	-47.3			

ELY, NEV. (805 MB.)

Standard pressure surface (mb)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind	
					Direction	Speed
SURFACE	28	1,908	- 5.1	78	190	8.4
1,000	28	165				
950	28	576				
900	28	1,014				
850	28	1,473				
800	28	1,954			187	8.2
750	28	2,471	- 2.9	60	193	7.4
700	28	3,011	- 6.3	59	241	11.1
650	28	3,580	- 9.7	55	251	15.7
600	28	4,200	-13.5	52	251	19.0
550	28	4,851	-18.1	48	251	21.8
500	28	5,561	-23.2	46	251	25.3
450	28	6,318	-28.7	[illegible]	255	26.8
400	28	7,156	-35.1		262	26.2
350	28	8,075	-41.8		268	28.6
300	28	9,104	-48.3		267	26.8
250	27	10,301	-51.5		278	27.6
200	27	11,744	-53.1		275	31.3
175	27	12,605	-52.8		278	34.4
150	26	13,592	-53.4		281	35.2
125	26	14,761	-55.4		283	30.7
100	26	16,178	-57.3		292	20.2
80	25	17,580	-58.7		301	12.8
70	25	18,428	-57.8		307	9.5
60	24	19,391	-56.1		346	5.1
50	24	20,553	-55.4		26	4.5
40	23	21,980	-54.9		63	12.4
30	22	23,823	-53.1		60	12.4
25	20	24,997	-52.3		69	18.7
20	12	26,476	-51.1			
15						
10						
7						

ENIWETOK, MARSHALL IS. (1011 MB.)

Standard pressure surface (mb)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind	
					Direction	Speed
SURFACE	28	5	27.0	74	74	16.1
1,000	28	101	26.1	76	71	18.7
950	28	550	22.2	83	70	20.8
900	28	1,022	19.1	75	76	19.8
850	28	1,513	16.8	60	80	18.1
800	28	2,029	15.6	41	85	16.1
750	28	2,575	13.4	30	88	15.2
700	28	3,153	10.8	26	79	15.5
650	28	3,766	8.0	24	80	15.2
600	28	4,423	4.1	25	83	15.9
550	28	5,121	- .3	25	80	15.2
500	28	5,882	- 4.6	19	70	18.8
450	28	6,700	- 9.6	19	69	17.1
400	28	7,605	-15.2	18	75	15.7
350	28	8,601	-22.0	16	68	12.0
300	28	9,717	-30.4	15	62	9.7
250	28	10,984	-40.8		58	6.6
200	28	12,464	-52.9		87	3.9
175	28	13,311	-59.8		81	3.3
150	28	14,258	-67.0		79	5.1
125	28	15,338	-74.8		77	8.5
100	27	16,608	-82.4		88	13.8
80	25	17,847	-81.9		95	10.7
70	24	18,604	-76.1		82	4.3
60	24	19,507	-70.4		262	4.1
50	23	20,599	-66.5		267	8.2
40	23	21,963	-62.7		264	6.2
30	22	23,748	-59.0		61	4.1
25	21	24,900	-55.8		82	11.7
20	21	26,333	-51.8		90	22.9
15	20	28,204	-48.9		87	39.1
10	19	30,905	-43.1		91	44.5
7	19	33,329	-40.5		93	50.9
5	15	35,611	-37.7		92	56.0
4	6	37,147	-33.8			

FAIRBANKS, ALASKA (1003 MB.)

Standard pressure surface (mb)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind	
					Direction	Speed
SURFACE	28	135	-14.2	80	1	1.7
1,000	28	159			308	1.7
950	28	553	-10.0	67	162	1.2
900	28	971	- 8.6	65	237	4.3
850	28	1,415	- 8.5	65	256	10.5
800	28	1,884	- 9.9	64	265	12.0
750	28	2,375	-12.4	62	263	13.4
700	28	2,905	-15.2	61	274	12.8
650	28	3,454	-18.3	59	276	16.9
600	28	4,056	-21.7	59	268	22.2
550	28	4,684	-25.7	54	270	22.0
500	28	5,378	-30.0	51	267	27.2
450	28	6,113	-35.0	49	263	29.1
400	28	6,934	-41.1		267	33.8
350	28	7,830	-46.9		267	39.1
300	28	8,838	-52.4		269	37.3
250	28	10,009	-55.1		272	38.7
200	28	11,437	-53.6		277	36.1
175	28	12,300	-51.6		271	31.1
150	28	13,307	-50.2		274	32.4
125	28	14,500	-49.5		273	34.0
100	28	15,964	-48.6		276	34.8
80	28	17,431	-48.3		278	31.9
70	28	18,316	-47.4		277	35.4
60	28	19,332	-47.0		281	33.2
50	27	20,544	-46.6		285	31.9
40	24	22,051	-45.7		281	30.9
30	22	23,967	-45.5		280	29.7
25	20	25,198	-44.5		287	29.7
20	18	26,678	-44.5		272	27.4
15						
10						
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5						
4						

FLINT, MICH. (989 MB.)

Standard pressure surface (mb)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind	
					Direction	Speed
SURFACE	28	234	- 7.6	86	323	1.0
1,000	28	150				
950	28	550	- 8.1	78	298	1.6
900	28	969	- 8.6	74	285	6.4
850	28	1,413	- 8.6	68	282	10.9
800	28	1,883	- 8.3	59	278	16.7
750	28	2,386	- 8.8	54	278	23.1
700	28	2,917	-11.0	52	276	27.8
650	28	3,484	-13.6	47	279	32.6
600	28	4,088	-17.3	46	281	37.1
550	28	4,733	-21.0	44	277	42.7
500	28	5,433	-25.5	46	275	45.5
450	28	6,185	-30.6	44	275	49.0
400	28	7,017	-36.3	43	271	55.8
350	28	7,931	-42.2		272	62.2
300	28	8,960	-48.2		271	70.7
250	28	10,147	-52.7		271	75.8
200	27	11,575	-52.8		272	70.1
175	27	12,438	-52.2		273	63.1
150	27	13,434	-52.6		276	60.4
125	27	14,608	-53.9		277	53.6
100	27	16,035	-55.4		279	43.3
80	27	17,456	-55.7		279	33.8
70	27	18,314	-55.8		282	28.0
60	26	19,288	-55.5		285	26.2
50	26	20,453	-54.7		295	18.5
40	26	21,884	-54.0		297	15.5
30	26	23,738	-52.7		326	12.8
25	25	24,926	-52.3		341	11.9
20	23	26,369	-51.7		342	15.0
15	14	28,295	-50.3		345	14.2
10						
7						
5						
4						

FORT WORTH, TEXAS (994 MB.)

Standard pressure surface (mb)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind	
					Direction	Speed
SURFACE	28	180	8.0	77	337	2.3
1,000	28	132				
950	28	562	10.5	62	244	5.4
900	28	1,009	11.1	43	245	9.3
850	28	1,486	10.8	38	251	12.4
800	28	1,990	8.7	31	257	15.0
750	28	2,520	5.5	34	258	17.1
700	28	3,081	1.7	37	252	22.0
650	28	3,672	- 2.0	36	250	24.1
600	28	4,306	- 5.7	35	252	29.1
550	28	4,977	-10.3		252	33.2
500	28	5,710	-15.5		251	38.1
450	28	6,490	-20.9		257	40.6
400	28	7,356	-27.6		257	46.0
350	28	8,303	-34.7		255	47.2
300	28	9,363	-42.1		260	53.2
250	28	10,575	-50.0		267	55.6
200	28	12,017	-54.6		267	61.6
175	28	12,868	-56.6		267	62.6
150	28	13,839	-59.7		270	57.5
125	28	14,970	-63.0		265	49.5
100	28	16,329	-67.4		272	40.4
80	28	17,667	-69.0		274	27.0
70	28	18,481	-67.4		279	15.9
60	28	19,403	-64.3		290	4.7
50	26	20,525	-61.3		45	3.3
40	25	21,922	-58.5		62	11.9
30	25	23,739	-56.6		68	13.4
25	23	24,902	-55.6		70	20.4
20	18	26,321	-53.1		76	22.3
15	8	28,194	-50.7			
10						
7						
5						
4						

GLASGOW, MONT (935 MB.)

Standard pressure surface (mb)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind	
					Direction	Speed
SURFACE	28	696	-13.0	[illegible]	[illegible]	3.5
1,000	28	175				
950	28	566				
900	28	984	-10.8	75	279	2.7
850	28	1,425	- 9.7	72	292	10.9
800	28	1,893	-10.5	64	300	16.3
750	28	2,384	-11.9	61	303	19.4
700	28	2,914	-14.6	60	296	22.0
650	28	3,466	-17.3	53	297	26.4
600	28	4,068	-20.7	52	299	30.3
550	28	4,698	-24.6	51	297	34.8
500	28	5,393	-29.2	50	294	35.2
450	28	6,129	-34.5	45	292	41.0
400	28	6,950	-40.5		289	44.3
350	27	7,850	-46.7		286	48.0
300	27	8,859	-52.3		286	49.9
250	27	10,031	-54.6		287	51.9
200	26	11,464	-52.6		286	50.9
175	26	12,328	-52.0		286	49.0
150	26	13,329	-51.1		288	45.1
125	26	14,515	-51.6		288	39.4
100	[illegible]	15,952	-52.7		288	35.9
80	23	17,385	-53.2		293	28.8
70	23	18,248	-52.5		297	25.3
60	23	19,242	-52.3		300	24.7
50	23	20,421	-52.1		308	23.7
40	23	21,868	-51.4		326	19.4
30	19	23,769	-51.2		[illegible]	16.7
25	12	25,063	-50.3			
20	5	26,518	-50.4			
15						
10						
7						
5						
4						

See reference note at end of table

RAWINSONDE DATA

Average monthly values

FEBRUARY 1962

GRAND JUNCTION, COLO. (849 MB.)

Standard pressure surface mb	Number of observations	Dynamic height	Temperature	Relative humidity	Wind Direction	Wind Speed
SURFACE	28	1,474	0.6	77	111	3.7
1,000	28	143				
950	28	561				
900	28	1,005				
850	28	1,468			120	5.6
800	28	1,956	.9	61	[illegible]	7.2
750	28	2,470	- 2.1	61	223	10.3
700	28	3,018	- 5.8	62	249	15.0
650	28	3,591	- 9.6	62	263	18.7
600	28	4,209	-13.4	59	260	22.9
550	28	4,862	-17.9	56	263	26.8
500	28	5,573	-22.8	52	262	31.9
450	28	6,332	-28.2	46	261	32.4
400	28	7,173	-34.6		265	35.9
350	28	8,092	-41.4		256	42.9
300	28	9,123	-48.2		264	40.0
250	28	10,312	-52.4		266	39.4
200	28	11,749	-53.5		273	41.6
175	28	12,609	-53.3		275	42.2
150	28	13,600	-54.3		276	40.2
125	28	14,764	-56.1		275	34.2
100	28	16,169	-59.9		284	29.5
80	28	17,557	-61.2		287	18.3
70	28	18,399	-59.2		296	13.4
60	27	19,363	-57.9		320	7.0
50	27	20,515	-57.0		12	6.8
40	27	21,931	-56.0		53	11.5
30	27	23,766	-54.6		62	20.0
25	27	24,935	-53.9		66	22.3
20	27	26,371	-53.4		69	25.6
15	24	28,222	-52.0		77	30.1
10	18	30,860	-49.6		77	25.8
7	9	33,182	-48.4			
5	8	35,382	-48.1			

GREAT FALLS, MONT. (885 MB.)

Standard pressure surface mb	Number of observations	Dynamic height	Temperature	Relative humidity	Wind Direction	Wind Speed
SURFACE	28	1,123	- 7.2	77	245	4.1
1,000	28	158				
950	28	562				
900	28	990				
850	28	1,436	- 6.1	59	256	12.2
800	28	1,909	- 7.8	61	274	13.8
750	28	2,406	-10.4	63	285	14.8
700	28	2,937	-13.1	64	293	16.7
650	28	3,494	-15.9	62	289	21.0
600	28	4,098	-19.3	60	285	23.5
550	28	4,732	-23.4	55	283	28.6
500	28	5,431	-28.2	53	284	33.0
450	28	6,173	-33.6	49	287	34.6
400	28	6,996	-39.5		286	38.5
350	28	7,897	-45.9		285	42.2
300	28	8,908	-52.3		285	45.9
250	28	10,080	-54.7		285	47.6
200	28	11,514	-53.1		281	44.7
175	28	12,375	-52.5		285	39.2
150	27	13,370	-51.8		287	36.7
125	27	14,553	-52.0		286	34.0
100	26	15,995	-53.0		288	31.9
80	26	17,432	-53.5		296	28.8
70	25	18,288	-53.0		300	25.1
60	25	19,280	-52.0		302	22.3
50	25	20,460	-52.1		311	20.4
40	25	21,904	-51.8		328	14.8
30	25	23,770	-51.7		342	14.2
25	24	24,970	-51.6		9	14.4
20	23	26,419	-51.7		16	16.5
15	22	28,284	-50.4		29	17.3
10	16	30,987	-48.7		26	18.8
7	10	33,326	-46.7			
5	7	35,620	-47.0			

GREEN BAY, WIS. (992 MB.)

Standard pressure surface mb	Number of observations	Dynamic height	Temperature	Relative humidity	Wind Direction	Wind Speed
SURFACE	28	210	-11.7	86	4	3.9
1,000	28	149				
950	28	545	-10.4	75	13	5.2
900	28	959	-11.0	74	327	3.7
850	28	1,398	-11.4	69	296	8.5
800	28	1,863	-11.1	65	290	13.0
750	28	2,356	-11.1	59	284	19.2
700	28	2,887	-12.9	57	284	25.3
650	28	3,448	-15.7	53	284	29.1
600	28	4,048	-19.0	50	282	34.6
550	28	4,689	-22.6	49	280	40.6
500	28	5,384	-27.2	49	275	45.3
450	28	6,135	-32.4	50	275	49.9
400	28	6,956	-38.3		275	56.7
350	28	7,863	-44.1		274	61.2
300	28	8,883	-49.8		271	70.1
250	28	10,064	-53.1		272	74.0
200	28	11,506	-51.6		273	72.7
175	28	12,373	-51.4		273	69.6
150	28	13,374	-51.6		274	64.7
125	27	14,544	-52.8		272	59.3
100	27	15,978	-54.3		273	50.5
80	27	17,408	-54.8		280	38.1
70	27	18,265	-54.5		279	32.4
60	26	19,247	-55.1		283	25.6
50	25	20,405	-54.6		289	20.8
40	24	21,839	-53.3		303	18.1
30	14	23,729	-51.8		346	13.2
25	10	24,987	-50.5			
20						
15						
10						
7						
5						

GREENSBORO, N. C. (985 MB.)

Standard pressure surface mb	Number of observations	Dynamic height	Temperature	Relative humidity	Wind Direction	Wind Speed
SURFACE	27	273	2.2	80	265	0.8
1,000	27	152				
950	27	572	3.5	66	245	5.6
900	27	1,007	4.5	62	253	13.8
850	27	1,473	4.2	54	262	22.3
800	27	1,966	3.1	50	267	26.2
750	27	2,485	1.0	50	268	30.1
700	27	3,039	- 1.7	47	270	35.8
650	27	3,623	- 5.1	47	270	38.9
600	27	4,251	- 8.7	46	270	41.8
550	27	4,908	-12.8	46	272	47.6
500	27	5,641	-17.7	45	272	54.2
450	27	6,415	-23.2	46	273	60.0
400	27	7,274	-29.5	44	275	64.7
350	27	8,213	-36.6		275	70.7
300	27	9,263	-44.9		278	72.9
250	27	10,461	-52.4		270	76.9
200	27	11,889	-55.2		275	82.2
175	27	12,740	-56.2		276	79.5
150	27	13,716	-58.1		275	75.6
125	27	14,858	-60.6		276	65.5
100	27	16,237	-63.6		274	48.4
80	27	17,600	-64.9		276	38.1
70	27	18,424	-63.9		273	34.4
60	27	19,367	-61.4		277	19.4
50	27	20,503	-59.6		288	9.1
40	27	21,903	-58.2		1	4.5
30	27	23,724	-55.9		40	3.3
25	27	24,885	-55.1		39	6.2
20	25	26,322	-53.5		34	7.4
15	25	28,183	-51.2		60	8.5
10	10	30,827	-47.7			
7						
5						

GUAM, MARIANA IS. (1000 MB.)

Standard pressure surface mb	Number of observations	Dynamic height	Temperature	Relative humidity	Wind Direction	Wind Speed
SURFACE	28	111	24.2	87	69	7.2
1,000	28	112			60	8.4
950	28	565	21.5	83	75	21.8
900	28	1,027	18.9	79	80	21.4
850	28	1,517	16.4	71	89	15.7
800	28	2,031	14.2	61	92	10.9
750	28	2,576	12.1	50	95	10.3
700	28	3,151	10.1		92	9.1
650	28	3,767	7.0		95	9.9
600	28	4,419	3.6		99	10.3
550	28	5,118	- .5		89	8.9
500	28	5,876	- 5.1		92	10.3
450	28	6,695	-10.2		97	10.7
400	28	7,594	-15.8		83	8.5
350	28	8,588	-22.2		82	7.0
300	28	9,702	-30.4		90	5.2
250	28	10,971	-40.6		151	5.8
200	28	12,450	-52.8		170	12.2
175	28	13,297	-59.7		168	14.8
150	28	14,243	-67.3		167	17.5
125	28	15,318	-75.7		157	21.6
100	28	16,578	-83.8		141	22.3
80	23	17,820	-81.3		118	10.1
70	22	18,576	-77.5		95	4.9
60	21	19,473	-72.2		291	1.0
50	21	20,560	-66.9		238	4.1
40	21	21,922	-62.7		216	4.1
30	21	23,718	-57.6		90	5.2
25	19	24,873	-55.3		74	11.7
20	19	26,309	-52.2		86	18.1
15	15	28,191	-48.1		87	29.1
10	11	30,894	-44.4			
7						
5						

HILO, HAWAII (1015 MB.)

Standard pressure surface mb	Number of observations	Dynamic height	Temperature	Relative humidity	Wind Direction	Wind Speed
SURFACE	28	11	18.7	79	241	5.2
1,000	28	138	20.5	73	254	4.5
950	28	579	17.9	77	26	.6
900	28	1,043	14.9	78	77	1.0
850	28	1,525	11.8	77	98	1.9
800	28	2,032	10.6	54	60	1.4
750	28	2,568	8.4	40	253	1.4
700	28	3,136	5.4	36	272	3.3
650	28	3,737	1.8	32	288	7.6
600	28	4,380	- 1.7		292	12.4
550	28	5,065	- 4.6		279	18.1
500	28	5,814	- 9.0		270	22.7
450	28	6,615	-14.2		272	26.8
400	28	7,507	-20.7		273	30.7
350	28	8,483	-26.6		278	41.2
300	28	9,581	-33.2		277	45.3
250	28	10,841	-41.6		273	48.8
200	28	12,319	-52.4		274	47.8
175	28	13,171	-58.1		279	44.7
150	28	14,128	-64.2		283	36.1
125	28	15,225	-70.9		277	30.3
100	28	16,527	-76.3		277	21.8
80	27	17,809	-78.0		262	11.1
70	26	18,579	-75.5		249	4.1
60	25	19,483	-70.7		84	2.3
50	24	20,576	-65.9		85	7.6
40	24	21,944	-61.9		95	9.1
30	24	23,748	-57.4		92	9.3
25	24	24,905	-55.6		83	11.1
20	24	26,335	-53.1		74	14.0
15	15	28,196	-51.2		100	9.1
10	6	30,857	-45.9			
7						

HUNTINGTON, W. VA. (986 MB.)

Standard pressure surface mb	Number of observations	Dynamic height	Temperature	Relative humidity	Wind Direction	Wind Speed
SURFACE	28	246	1.5	75	269	1.2
1,000	28	133				
950	28	547	1.2	68	249	5.1
900	28	982	.4	69	251	13.8
850	28	1,440	- .3	68	262	21.6
800	28	1,925	- .7	56	269	23.7
750	28	2,441	- 2.8	49	271	29.3
700	28	2,984	- 4.9	46	272	33.6
650	28	3,562	- 7.7	45	271	39.2
600	28	4,184	-10.8	44	274	42.6
550	28	4,845	-14.7	44	272	46.0
500	28	5,563	-19.2	45	271	52.3
450	28	6,336	-24.4	45	271	57.1
400	28	7,187	-30.5		272	59.5
350	28	8,123	-37.5		270	64.3
300	27	9,164	-46.0		270	62.6
250	27	10,358	-53.1		273	68.4
200	27	11,784	-55.6		274	74.6
175	27	12,635	-55.9		276	71.7
150	27	13,615	-56.7		278	68.4
125	27	14,765	-58.9		279	55.4
100	27	16,158	-61.3		277	48.2
80	26	17,533	-61.6		274	42.7
70	26	18,368	-61.4		277	38.3
60	26	19,321	-60.2		279	29.9
50	26	20,462	-58.7		285	25.1
40	26	21,872	-56.5		296	18.3
30	26	23,703	-55.5		329	10.7
25	23	24,870	-54.4		350	10.5
20	21	26,297	-53.2		7	10.5
15	19	28,178	-51.4		351	9.9
10	9	30,855	-48.0			
7						

INTERNAT. FALLS, MINN. (975 MB.)

Standard pressure surface mb	Number of observations	Dynamic height	Temperature	Relative humidity	Wind Direction	Wind Speed
SURFACE	28	360	-19.4	66	360	0.6
1,000	28	173				
950	28	559	-15.8	70	54	.6
900	28	964	-15.6	72	270	2.5
850	28	1,395	-15.2	67	282	6.8
800	28	1,853	-15.2	56	289	10.5
750	28	2,338	-16.0	53	296	15.3
700	28	2,859	-17.7	54	294	19.6
650	28	3,409	-19.9	52	293	24.9
600	28	4,002	-23.0	48	287	30.1
550	28	4,632	-26.6	48	286	35.0
500	28	5,317	-31.0	51	285	37.5
450	28	6,053	-35.9		285	45.3
400	28	6,867	-41.6		283	49.0
350	28	7,761	-47.5		282	57.7
300	28	8,769	-52.2		281	64.3
250	28	9,944	-53.1		280	63.1
200	28	11,390	-50.3		281	59.5
175	27	12,270	-49.7		280	58.9
150	27	13,279	-49.6		282	53.8
125	27	14,469	-50.6		281	50.7
100	26	15,918	-51.9		279	43.7
80	26	17,365	-51.5		279	38.1
70	26	18,233	-51.5		279	35.0
60	26	19,232	-51.4		293	25.6
50	26	20,417	-51.4		298	25.5
40	26	21,868	-51.0		313	19.6
30	25	23,758	-51.3		318	19.6
25	25	24,945	-50.7		327	18.8
20	23	26,407	-49.9		344	15.9
15	19	28,260	-49.8		349	15.9
10	12	30,890	-47.6			
7	7	33,234	-42.8			

JACKSON, MISS. (1005 MB.)

Standard pressure surface mb	Number of observations	Dynamic height	Temperature	Relative humidity	Wind Direction	Wind Speed
SURFACE	28	94	10.5	85	193	0.8
1,000	28	136			153	.8
950	28	565	11.4	71	235	9.3
900	28	1,017	10.9	61	251	14.2
850	28	1,492	9.6	50	249	15.3
800	28	1,994	7.6	42	257	18.7
750	28	2,521	4.9	40	261	21.6
700	28	3,083	1.9	35	265	23.9
650	28	3,675	- 1.7		264	27.4
600	28	4,309	- 5.3		265	30.1
550	28	4,981	- 9.5		264	34.2
500	28	5,716	-14.7		265	37.3
450	28	6,500	-20.1		265	42.9
400	28	7,369	-26.4		265	48.4
350	28	8,320	-34.0		262	54.0
300	28	9,382	-41.9		269	53.8
250	28	10,597	-48.8		269	60.2
200	28	12,045	-54.8		268	64.7
175	28	12,895	-57.3		269	65.3
150	28	13,864	-60.1		270	63.1
125	28	14,992	-64.2		270	52.5
100	28	16,342	-69.0		275	43.1
80	27	17,672	-69.7		286	29.0
70	26	18,485	-68.2		296	21.6
60	26	19,402	-65.0		314	10.5
50	26	20,523	-61.4		17	7.2
40	24	21,911	-59.0		32	5.6
30	23	23,723	-56.4		72	15.2
25	23	24,884	-54.8		72	16.3
20	23	26,316	-52.9		73	19.0
15	20	28,185	-49.1		83	18.7
10	13	30,885	-46.7			
7						

JACKSONVILLE, FLA. (1018 MB.)

Standard pressure surface mb	Number of observations	Dynamic height	Temperature	Relative humidity	Wind Direction	Wind Speed
SURFACE	28	5	11.7	94	267	1.9
1,000	28	157	14.2	78	256	3.9
950	28	590	15.0	59	237	8.2
900	28	1,048	13.1	55	250	11.5
850	28	1,527	10.6	53	255	15.0
800	28	2,030	7.8	47	260	17.1
750	28	2,555	5.2	41	265	20.8
700	28	3,120	2.0	38	267	23.5
650	28	3,710	- .6	30	268	28.0
600	28	4,351	- 4.5		271	29.9
550	28	5,022	- 8.8		273	33.0
500	28	5,763	-13.8		270	36.9
450	28	6,546	-19.7		273	42.0
400	28	7,420	-26.3		274	47.4
350	28	8,372	-33.0		277	54.8
300	27	9,433	-40.8		280	59.5
250	26	10,662	-49.1		272	74.2
200	26	12,104	-54.8		278	78.1
175	25	12,955	-57.3		276	74.4
150	25	13,920	-60.9		278	70.3
125	25	15,041	-65.3		275	60.6
100	25	16,385	-69.3		276	46.6
80	25	17,712	-70.2		274	34.2
70	25	18,514	-68.1		278	21.2
60	25	19,444	-64.7		279	9.1
50	24	20,567	-61.5		82	3.9
40	23	21,959	-58.0		86	6.8
30	23	23,785	-55.3		86	7.4
25	23	24,954	-53.4		91	11.1
20	21	26,399	-50.5		90	12.6
15	21	28,293	-46.4		106	10.5
10	17	31,026	-41.7			
7						

JOHNSTON IS., PACIFIC AREA (1015 MB.)

Standard pressure surface mb	Number of observations	Dynamic height	Temperature	Relative humidity	Wind Direction	Wind Speed
SURFACE	28	3	24.3	75	84	10.5
1,000	28	130	23.1	75	79	12.2
950	28	574	19.1	78	78	13.2
900	28	1,040	15.9	79	82	12.2
850	28	1,524	13.2	69	82	9.3
800	28	2,033	11.9	42	83	7.6
750	28	2,571	10.4		74	6.2
700	28	3,144	7.4		33	2.9
650	28	3,744	4.1		319	4.7
600	28	4,397	.9		295	9.3
550	28	5,083	- 2.8		286	12.4
500	28	5,841	- 7.3		278	13.2
450	28	6,648	-12.6		289	17.3
400	28	7,545	-18.0		294	22.3
350	28	8,532	-24.1		297	27.4
300	28	9,639	-31.5		289	30.5
250	28	10,907	-40.5		282	30.9
200	28	12,391	-52.2		284	31.9
175	28	13,243	-58.5		290	32.1
150	28	14,195	-65.8		295	31.5
125	28	15,282	-73.5		296	26.4
100	27	16,567	-79.5		301	20.0
80	25	17,818	-81.1		302	8.4
70	25	18,575	-78.1		303	3.3
60	25	19,467	-71.8		64	.6
50	25	20,561	-65.6		90	4.5
40	25	21,930	-62.1		98	6.2
30	24	23,725	-57.8		84	9.3
25	23	24,881	-54.7		79	13.2
20	23	26,320	-51.2		83	15.9
15	21	28,197	-49.3		80	18.7
10						
7						
5						

KING SALMON, ALASKA (1013 MB.)

Standard pressure surface mb	Number of observations	Dynamic height	Temperature	Relative humidity	Wind Direction	Wind Speed
SURFACE	28	15	- 6.5	86	97	4.7
1,000	28	117	- 2.1	77	100	5.6
950	28	524	- 1.9	69	120	8.5
900	28	953	- 3.2	66	143	7.4
850	28	1,405	- 4.7	60	181	7.2
800	28	1,880	- 6.3	59	190	9.3
750	28	2,383	- 8.6	54	201	10.9
700	28	2,916	-11.2	49	211	12.0
650	28	3,479	-14.2	45	213	13.8
600	28	4,085	-18.0	12	216	14.8
550	28	4,723	-22.0		212	16.5
500	28	5,424	-26.8		216	18.3
450	28	6,170	-32.3		212	19.8
400	28	6,996	-38.6		219	22.5
350	28	7,901	-45.0		222	24.9
300	28	8,917	-51.5		223	26.2
250	28	10,088	-55.2		223	28.0
200	26	11,519	-54.0		234	25.8
175	25	12,378	-52.3		233	23.1
150	25	13,379	-50.8		230	21.8
125	24	14,571	-49.9		232	20.2
100	23	16,029	-49.3		240	16.9
80	23	17,494	-48.7		245	14.6
70	23	18,377	-48.2		245	13.8
60	23	19,391	-47.6		248	12.0
50	23	20,597	-47.4		254	10.7
40	23	22,076	-46.9		265	9.5
30	21	23,990	-46.8		263	6.0
25	19	25,209	-46.7		273	2.9
20	17	26,681	-46.1		290	3.1
15	10	28,573	-46.4			
10						
7						
5						

KOROR, CAROLINE IS. (1006 MB.)

Standard pressure surface mb	Number of observations	Dynamic height	Temperature	Relative humidity	Wind Direction	Wind Speed
SURFACE	28	30	26.0	91	66	5.2
1,000	28	85	25.8	89	67	7.0
950	28	531	23.4	84	76	14.8
900	28	1,009	20.8	80	79	13.2
850	28	1,503	18.0	74	86	11.9
800	28	2,021	15.3	69	92	11.3
750	28	2,566	12.6	64	96	10.3
700	28	3,144	9.7	63	100	11.9
650	28	3,755	6.1	65	98	14.0
600	28	4,410	2.5	64	99	15.5
550	28	5,104	- 1.5	58	81	15.9
500	28	5,863	- 5.6	57	93	18.8
450	27	6,682	-10.0	51	111	18.3
400	27	7,586	-15.6	50	101	20.0
350	27	8,580	-22.2	46	104	20.2
300	27	9,694	-30.6	43	108	22.3
250	27	10,962	-40.7		117	27.2
200	27	12,440	-53.2		122	30.9
175	26	13,286	-60.5		124	33.4
150	25	14,226	-68.2		127	40.4
125	24	15,296	-76.4		122	47.8
100	20	16,559	-81.4		116	35.6
80	13	17,819	-78.3		99	10.3
70	11	18,593	-74.6		320	1.7
60	10	19,501	-71.5			
50	10	20,589	-67.1			
40	9	21,951	-63.8			
30	8	23,735	-59.1			
25	7	24,882	-57.5			
20	7	26,302	-55.1			
15	6	28,147	-51.4			
10						
7						
5						

KOTZEBUE, ALASKA (1017 MB.)

Standard pressure surface mb	Number of observations	Dynamic height	Temperature	Relative humidity	Wind Direction	Wind Speed
SURFACE	28	5	-14.1	72	113	9.1
1,000	28	133	-10.6	74	121	10.1
950	28	529	- 9.5	75	141	9.5
900	28	947	- 9.5	74	171	8.5
850	28	1,387	-10.7	71	182	8.7
800	28	1,851	-12.3	66	192	9.9
750	28	2,344	-14.0	58	202	9.7
700	28	2,864	-16.7	52	212	11.5
650	28	3,413	-19.6	48	222	13.4
600	28	4,008	-22.9	46	229	14.6
550	28	4,638	-27.0	48	232	15.5
500	28	5,321	-31.4	46	238	18.7
450	28	6,052	-36.5		238	22.5
400	28	6,865	-42.1		239	26.0
350	28	7,756	-48.3		238	27.4
300	28	8,758	-53.9		238	29.1
250	28	9,919	-56.3		238	30.7
200	27	11,340	-54.3		240	32.8
175	27	12,199	-52.7		239	34.4
150	27	13,197	-51.3		242	35.6
125	26	14,393	-50.2		243	36.9
100	24	15,849	-49.2		249	39.4
80	24	17,315	-48.5		249	40.6
70	24	18,196	-48.4		256	40.2
60	24	19,211	-47.4		256	42.4
50	24	20,418	-46.8		264	40.8
40	24	21,898	-46.6		259	43.5
30	23	23,807	-46.6		266	43.5
25	23	25,017	-46.5		267	44.1
20	21	26,511	-46.0		265	46.0
15	12	28,521	-44.3			
10						
7						
5						

KWAJALEIN, MARSHALL IS. (1010 MB.)

Standard pressure surface mb	Number of observations	Dynamic height	Temperature	Relative humidity	Wind Direction	Wind Speed
SURFACE	28	4	26.9	78	63	13.4
1,000	28	93	26.3	78	64	15.5
950	28	537	22.8	85	70	21.4
900	28	1,015	19.8	84	79	20.4
850	28	1,507	17.1	82	85	19.2
800	28	2,024	15.1	67	89	16.3
750	28	2,567	13.0	50	87	15.7
700	28	3,146	10.5	40	81	13.2
650	28	3,756	7.5	37	81	13.8
600	28	4,415	3.6	39	81	15.5
550	28	5,113	- .4	36	79	17.7
500	28	5,874	- 4.6	38	82	19.2
450	28	6,694	- 9.2	33	78	19.4
400	28	7,599	-14.9	32	78	16.5
350	28	8,597	-21.5	31	82	11.9
300	28	9,713	-30.3	32	77	8.5
250	28	10,983	-40.6		84	7.4
200	28	12,463	-52.8		101	10.9
175	28	13,311	-59.5		98	11.7
150	27	14,260	-66.7		87	10.3
125	25	15,341	-74.4		82	12.4
100	23	16,616	-81.6		91	15.5
80	21	17,864	-80.8		90	11.5
70	20	18,629	-74.7		99	2.3
60	20	19,534	-70.2		261	8.4
50	20	20,628	-67.0		274	11.9
40	20	21,989	-63.1		292	9.7
30	20	23,776	-59.2		293	5.2
25	20	24,927	-56.6		81	7.0
20	20	26,355	-53.7		90	22.7
15	17	28,217	-50.1		88	43.3
10	15	30,904	-44.5		95	56.9
7	9	33,290	-40.9			
5	6	35,592	-39.0			

See reference note at end of table

RAWINSONDE DATA

Average monthly values

FEBRUARY 1962

LAKE CHARLES, LA. (1015 MB.)

Standard pressure surface (mb)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind	
					Direction	Speed
SURFACE	28	5	13.2	93	159	4.1
1,000--	28	132	14.6	78	169	5.6
950----	28	564	14.3	66	202	10.7
900----	28	1,023	13.3	56	221	12.2
850----	28	1,504	11.8	44	224	12.2
800----	28	2,010	9.3	40	238	14.4
750----	28	2,541	6.9		248	15.7
700----	28	3,107	4.2		256	17.5
650----	28	3,706	.7		258	21.8
600----	28	4,345	- 3.6		261	26.4
550----	28	5,019	- 8.3		259	31.1
500----	28	5,760	-13.3		258	34.0
450----	28	6,554	-18.9		258	40.4
400----	28	7,422	-25.2		259	43.5
350----	28	8,378	-32.1		263	51.9
300----	28	9,448	-39.9		266	59.8
250----	28	10,673	-47.4		263	67.4
200----	28	12,126	-54.3		263	72.7
175----	28	12,976	-57.2		265	66.8
150----	28	13,944	-60.4		266	62.4
125----	27	15,070	-65.7		266	56.2
100----	26	16,412	-70.6		269	44.3
80-----	26	17,731	-72.2		271	27.4
70-----	25	18,533	-70.2		271	18.1
60-----	24	19,445	-66.0		303	5.1
50-----	24	20,564	-61.9		81	8.2
40-----	24	21,956	-58.5		80	17.1
30-----	22	23,778	-56.3		74	17.9
25-----	21	24,938	-54.7		75	17.9
20-----	17	26,367	-52.3		87	17.9
15-----	11	28,244	-48.3			

LANDER, WYO. (824 MB.)

Standard pressure surface (mb)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind	
					Direction	Speed
SURFACE	28	1,696	- 6.7	64	229	2.5
1,000--	28	156				
950----	28	565				
900----	28	1,000				
850----	28	1,449				
800----	28	1,927	- 4.0	53	234	2.9
750----	28	2,433	- 6.0	50	257	6.0
700----	28	2,973	- 8.3	49	274	11.7
650----	28	3,542	-11.3	47	284	18.5
600----	28	4,155	-15.3	45	281	27.0
550----	28	4,805	-19.5	42	278	30.7
500----	28	5,510	-24.5	38	273	34.0
450----	28	6,263	-30.6	40	270	35.4
400----	28	7,095	-37.1		265	40.4
350----	28	8,005	-43.8		264	44.5
300----	28	9,027	-50.0		267	48.4
250----	28	10,206	-53.5		272	52.1
200----	28	11,641	-53.3		273	52.3
175----	28	12,502	-53.1		271	51.7
150----	28	13,496	-52.9		273	47.4
125----	28	14,670	-54.6		275	42.0
100----	28	16,095	-56.0		276	29.7
80-----	28	17,510	-56.1		280	23.5
70-----	28	18,361	-55.6		282	16.3
60-----	28	19,343	-54.7		300	11.1
50-----	28	20,511	-54.2		317	7.6
40-----	27	21,951	-53.7		15	8.4
30-----	21	23,819	-52.5		55	16.1
25-----	20	25,005	-51.6		55	20.0
20-----	16	26,463	-50.8		60	27.0
15-----	11	28,356	-49.2			

LAS VEGAS, NEV. (938 MB.)

Standard pressure surface (mb)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind	
					Direction	Speed
SURFACE	28	660	6.3	56	228	5.8
1,000--	28	125				
950----	28	547				
900----	28	997	8.6	41	215	6.6
850----	28	1,468	5.9	43	234	6.6
800----	28	1,961	2.6	46	236	7.2
750----	28	2,479	- .6	46	240	11.1
700----	28	3,029	- 3.8	48	245	16.5
650----	28	3,602	- 7.4	44	245	18.1
600----	28	4,229	-11.4	39	246	19.6
550----	28	4,880	-16.3	41	252	22.9
500----	28	5,600	-21.5	41	254	27.6
450----	28	6,361	-27.1		257	31.7
400----	28	7,207	-33.1		258	35.9
350----	28	8,133	-39.9		260	41.4
300----	28	9,171	-46.3		263	43.7
250----	28	10,370	-50.9		267	54.2
200----	28	11,811	-53.3		269	56.3
175----	28	12,672	-53.4		270	56.0
150----	28	13,661	-54.7		272	54.6
125----	28	14,819	-58.2		275	44.5
100----	28	16,212	-61.6		274	35.4
80-----	27	17,596	-62.7		274	19.8
70-----	24	18,435	-61.9		275	9.3
60-----	24	19,385	-60.1		306	1.9
50-----	24	20,528	-57.9		66	5.4
40-----	21	21,932	-56.9		78	13.8
30-----	19	23,753	-55.3		78	20.4
25-----	13	24,906	-54.6		76	18.1
20-----						
15-----						

LIHUE, HAWAII (1012 MB.)

Standard pressure surface (mb)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind	
					Direction	Speed
SURFACE	28	36	19.1	78	327	2.5
1,000--	28	142	19.8	74	2	3.1
950----	28	582	16.8	76	2	3.3
900----	28	1,042	13.6	78	320	1.7
850----	28	1,522	10.7	73	296	2.1
800----	28	2,026	9.1	57	283	6.0
750----	28	2,559	7.2	41	276	11.1
700----	28	3,124	4.1	38	276	13.8
650----	28	3,721	.5		277	16.7
600----	28	4,362	- 3.5		286	17.1
550----	28	5,044	- 7.2		285	26.0
500----	28	5,785	-10.5		279	32.3
450----	28	6,584	-16.0		276	34.0
400----	28	7,465	-22.1		279	38.5
350----	28	8,435	-28.2		284	48.2
300----	28	9,528	-34.5		282	56.2
250----	28	10,782	-42.2		275	56.5
200----	28	12,259	-52.2		276	56.7
175----	28	13,113	-57.7		277	52.3
150----	28	14,073	-63.8		281	45.5
125----	27	15,177	-69.9		279	42.9
100----	27	16,486	-76.0		273	31.9
80-----	26	17,769	-76.5		270	17.7
70-----	25	18,540	-74.4		248	6.0
60-----	25	19,445	-70.0		118	3.5
50-----	25	20,544	-65.1		97	8.7
40-----	23	21,922	-60.8		96	8.7
30-----	22	23,734	-57.3		92	14.2
25-----	22	24,892	-55.8		87	14.2
20-----	21	26,327	-53.4		79	15.9
15-----	13	28,220	-48.7			

LITTLE ROCK, ARK. (1008 MB.)

Standard pressure surface (mb)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind	
					Direction	Speed
SURFACE	27	79	6.0	80	3	3.1
1,000--	27	140	6.3	75	9	2.1
950----	27	564	7.5	66	255	4.7
900----	27	1,010	8.9	57	262	10.3
850----	27	1,483	8.0	45	270	14.8
800----	27	1,982	6.1	43	276	18.8
750----	27	2,504	3.6	37	270	22.3
700----	27	3,067	.5	35	266	26.4
650----	27	3,650	- 3.2		264	30.9
600----	27	4,287	- 7.2		266	34.8
550----	27	4,955	-11.4		264	39.4
500----	27	5,686	-16.2		264	40.4
450----	27	6,467	-21.5		270	42.4
400----	27	7,330	-27.7		270	[illegible]
350----	27	8,276	-34.9		270	49.2
300----	27	9,334	-42.7		274	56.3
250----	27	10,544	-50.2		272	64.5
200----	27	11,984	-54.6		278	69.9
175----	27	12,835	-56.4		267	70.3
150----	27	13,808	-58.9			
125----	26	14,945	-62.2			
100----	26	16,313	-65.9			
80-----	22	17,680	-66.8			
70-----	18	18,497	-64.9			
60-----	18	19,436	-62.7			
50-----	17	20,567	-60.1			
40-----	16	21,969	-58.6			
30-----	16	23,790	-55.9			
25-----	15	24,956	-54.8			
20-----	14	26,396	-53.7			
15-----	10	28,253	-50.8			

McGRATH, ALASKA (1006 MB.)

Standard pressure surface (mb)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind	
					Direction	Speed
SURFACE	28	103	-13.5	75		0.0
1,000--	28	151			132	1.9
950----	28	551	- 8.3	69	15	9.3
900----	28	969	- 6.2	70	87	8.4
850----	28	1,415	- 7.1	62	192	8.7
800----	28	1,887	- 8.5	59	205	7.2
750----	28	2,384	-11.2	55	209	9.5
700----	28	2,911	-14.3	55	218	11.7
650----	28	3,471	-17.7	53	223	13.2
600----	28	4,064	-21.0	51	224	15.3
550----	28	4,700	-24.8	49	226	18.7
500----	28	5,390	-29.2	49	230	20.6
450----	28	6,130	-34.3	46	232	23.5
400----	28	6,950	-40.1		232	26.2
350----	28	7,849	-46.5		238	26.0
300----	28	8,858	-52.7		242	27.0
250----	28	10,027	-55.1		244	27.2
200----	28	11,454	-53.6		247	26.4
175----	28	12,315	-52.2		246	26.2
150----	28	13,317	-50.4		249	25.6
125----	28	14,508	-49.9		250	25.3
100----	28	15,969	-49.0		255	25.5
80-----	28	17,436	-48.4		257	21.8
70-----	28	18,324	-48.0		260	22.5
60-----	28	19,334	-47.1		263	23.5
50-----	28	20,543	-46.5		268	23.1
40-----	27	22,026	-46.7		275	22.3
30-----	25	23,940	-46.2		278	18.8
25-----	22	25,152	-45.9		282	21.8
20-----	10	26,586	-46.4			
15-----						
10-----						
7------						
5------						

MAJURO, MARSHALL IS. (1010 MB.)

Standard pressure surface (mb)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind	
					Direction	Speed
SURFACE	28	3	27.1	81	63	11.7
1,000--	28	90	26.4	81	64	14.0
950----	28	535	23.1	83	70	19.0
900----	28	1,013	19.9	82	76	20.8
850----	28	1,505	17.0	78	77	18.8
800----	28	2,022	14.5	73	79	16.3
750----	28	2,566	12.6	56	78	14.8
700----	28	3,143	9.8	45	79	13.8
650----	28	3,756	6.6	42	79	14.6
600----	28	4,410	3.1	36	82	16.7
550----	28	5,106	- .6		76	17.5
500----	28	5,867	- 5.0		83	18.7
450----	28	6,688	- 9.6		70	24.1
400----	28	7,590	-15.1		73	19.4
350----	28	8,587	-21.7		77	15.2
300----	28	9,703	-30.2		81	8.5
250----	28	10,974	-40.4		108	9.3
200----	28	12,456	-52.5		112	14.4
175----	28	13,305	-59.3		109	14.8
150----	28	14,254	-66.8		79	11.9
125----	27	15,332	-74.9		67	14.8
100----	27	16,602	-82.7		82	18.1
80-----	27	17,838	-82.5		97	15.3
70-----	27	18,599	-74.6		216	2.7
60-----	27	19,501	-71.4		272	12.4
50-----	27	20,592	-67.0		277	17.9
40-----	27	21,952	-62.9		277	12.6
30-----	27	23,739	-59.5		286	9.1
25-----	27	24,887	-56.8		103	2.9
20-----	27	26,311	-54.4		92	23.5
15-----	27	28,173	-50.0		89	46.8
10-----	9	30,835	-46.1			
7------						
5------						

MEDFORD, OREG. (967 MB.)

Standard pressure surface (mb)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind	
					Direction	Speed
SURFACE	28	401	0.9	86	204	0.6
1,000--	28	125				
950----	28	542	3.1	75	279	.8
900----	28	980	3.5	62	153	6.8
850----	28	1,442	1.5	60	175	7.6
800----	28	1,928	- 1.5	62	207	8.5
750----	28	2,436	- 4.6	62	225	12.0
700----	28	2,980	- 7.6	60	233	13.6
650----	28	3,548	-11.0	56	250	13.8
600----	28	4,164	-14.8	51	254	14.8
550----	28	4,810	-19.0	50	262	16.7
500----	28	5,520	-24.0	48	267	16.9
450----	28	6,269	-29.8	47	267	17.7
400----	28	7,110	-36.3		275	18.5
350----	28	8,024	-43.0		259	23.1
300----	28	9,050	-49.3		261	26.0
250----	28	10,234	-53.2		263	28.4
200----	28	11,672	-52.7		276	27.8
175----	28	12,537	-52.0		281	32.8
150----	28	13,538	-51.6		287	30.5
125----	28	14,718	-53.0		279	29.0
100----	28	16,147	-55.7		288	20.8
80-----	28	17,568	-56.0		298	15.5
70-----	28	18,422	-55.6		305	11.3
60-----	28	19,403	-55.0		328	5.4
50-----	28	20,571	-54.1		35	6.4
40-----	28	22,005	-53.6		64	10.1
30-----	27	23,857	-52.9		63	16.5
25-----	27	25,035	-52.2		71	20.6
20-----	27	26,482	-51.3		72	24.7
15-----	26	28,370	-50.5		74	30.7
10-----	22	31,008	-48.9		65	25.8
7------	17	33,336	-47.4		67	20.4
5------	10	35,563	-48.2			

MIAMI, FLA. (1018 MB.)

Standard pressure surface (mb)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind	
					Direction	Speed
SURFACE	28	4	17.5	89	187	0.8
1,000--	28	153	19.3	81	178	1.6
950----	28	593	17.2	74	167	4.7
900----	28	1,055	14.7	65	186	5.2
850----	28	1,537	12.5	48	247	3.5
800----	28	2,044	10.1	43	273	5.2
750----	28	2,578	7.6	38	271	8.4
700----	28	3,145	5.1	33	264	12.4
650----	28	3,744	2.0		271	15.0
600----	28	4,390	- 1.4		276	19.2
550----	28	5,071	- 5.6		272	24.9
500----	28	5,820	-10.7		275	27.2
450----	28	6,615	-16.4		275	31.1
400----	28	7,499	-23.1		277	35.9
350----	28	8,463	-30.0		279	44.1
300----	28	9,543	-38.0		277	52.1
250----	27	10,777	-46.6		274	60.6
200----	27	12,229	-55.1		275	66.8
175----	27	13,074	-59.4		275	63.0
150----	27	14,032	-63.0		278	56.9
125----	27	15,140	-68.3		277	48.6
100----	27	16,460	-73.7		275	37.5
80-----	27	17,757	-74.6		279	25.3
70-----	26	18,540	-72.4		278	16.1
60-----	26	19,447	-68.9		279	3.7
50-----	26	20,550	-64.2		83	3.7
40-----	26	21,931	-59.5		79	11.1
30-----	26	23,747	-55.4		89	11.7
25-----	26	24,915	-53.4		91	12.8
20-----	25	26,364	-50.1		82	12.6
15-----	23	28,261	-45.9		113	7.4
10-----	21	30,993	-41.4		267	6.2
7------	14	33,400	-38.7			
5------						

MIDLAND, TEXAS (914 MB.)

Standard pressure surface (mb)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind	
					Direction	Speed
SURFACE	28	874	4.9	55	257	1.7
1,000--	28	131				
950----	28	556				
900----	28	1,004	10.2	43	225	4.5
850----	28	1,480	10.5	36	254	13.0
800----	28	1,984	9.2	28	261	20.2
750----	28	2,514	6.0	26	264	20.6
700----	28	3,077	2.1	27	261	21.6
650----	28	3,667	- 1.8		258	25.8
600----	28	4,303	- 6.1		255	28.6
550----	28	4,975	-10.4		255	32.1
500----	28	5,707	-15.1		255	37.9
450----	28	6,490	-20.9		258	40.4
400----	28	7,354	-27.5		259	43.7
350----	28	8,301	-34.6		259	50.3
300----	28	9,362	-41.7		256	64.5
250----	28	10,578	-49.3		257	70.1
200----	28	12,027	-53.7		263	71.9
175----	28	12,881	-56.1		265	67.4
150----	27	13,847	-59.3		267	57.9
125----	27	14,977	-63.8		267	51.7
100----	27	16,332	-67.7		268	42.6
80-----	27	17,668	-69.2		265	25.5
70-----	26	18,481	-67.4		274	12.6
60-----	26	19,405	-64.3		304	2.3
50-----	25	20,529	-61.3		96	8.4
40-----	25	21,919	-58.8		88	13.0
30-----	24	23,734	-56.9		82	16.7
25-----	23	24,888	-55.6		83	19.6
20-----	23	26,316	-53.5		85	22.2
15-----	20	28,177	-51.0		86	23.1
10-----	15	30,838	-47.4			
7------	6	33,197	-44.0			
5------	5	35,453	-38.9			

MONTGOMERY, ALA. (1011 MB.)

Standard pressure surface (mb)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind	
					Direction	Speed
SURFACE	28	61	10.8	82		0.0
1,000--	28	150	12.2	77	242	1.4
950----	28	579	12.3	66	258	8.9
900----	28	1,033	11.0	61	260	13.6
850----	28	1,509	9.8	55	259	18.3
800----	28	2,011	7.3	50	260	22.9
750----	28	2,537	4.9	44	260	25.5
700----	28	3,100	1.8	42	265	27.2
650----	28	3,690	- 1.2	35	265	30.5
600----	28	4,328	- 5.1		264	33.0
550----	28	5,001	- 9.4		264	36.7
500----	28	5,737	-14.3		263	39.8
450----	28	6,517	-19.9		267	42.0
400----	28	7,393	-26.2		269	46.8
350----	28	8,344	-33.5		269	54.0
300----	28	9,408	-41.7		271	57.1
250----	28	10,624	-49.3		272	68.2
200----	28	12,067	-55.2		271	75.4
175----	27	12,916	-57.7		269	72.5
150----	27	13,885	-59.9		268	66.1
125----	25	15,013	-64.4		270	59.7
100----	24	16,367	-68.4		273	47.4
80-----	24	17,699	-69.3		269	36.7
70-----	24	18,503	-68.2		269	28.6
60-----	24	19,428	-65.3		262	16.5
50-----	24	20,547	-61.9		272	5.4
40-----	24	21,936	-59.1		60	1.9
30-----	24	23,750	-56.4		75	4.7
25-----	24	24,910	-55.0		81	6.0
20-----	22	26,343	-52.7		84	7.0
15-----	20	28,210	-50.1		82	4.9
10-----	5	30,888	-45.7			
7------						
5------						

NANTUCKET, MASS. (1016 MB.)

Standard pressure surface (mb)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind	
					Direction	Speed
SURFACE	28	14	- 1.3	80	20	5.8
1,000--	28	142	- 1.5	75	14	6.0
950----	28	545	- 3.2	74	357	6.0
900----	28	977	- 4.1	64	309	6.8
850----	28	1,429	- 3.9	52	272	14.2
800----	28	1,906	- 5.1	52	264	20.2
750----	28	2,408	- 6.9	49	261	24.9
700----	28	2,949	- 8.5	40	265	30.9
650----	28	3,517	-11.4	40	261	35.8
600----	28	4,131	-14.6	40	264	40.0
550----	28	4,782	-18.4	39	263	43.7
500----	28	5,491	-22.9	38	263	46.6
450----	28	6,245	-28.2	36	263	48.4
400----	28	7,091	-34.3		269	52.8
350----	28	8,013	-40.7		267	58.5
300----	28	9,048	-47.1		269	57.3
250----	28	10,239	-52.9		268	61.0
200----	27	11,658	-54.2		266	52.3
175----	27	12,517	-53.1		273	43.9
150----	27	13,512	-53.2		278	43.1
125----	26	14,687	-54.6		275	36.7
100----	26	16,110	-56.7		272	34.0
80-----	26	17,522	-56.7		270	26.4
70-----	25	18,376	-57.0		272	20.0
60-----	25	19,356	-55.9		273	17.1
50-----	25	20,519	-54.9		281	10.9
40-----	23	21,951	-54.6		283	6.0
30-----	23	23,798	-53.3		7	3.7
25-----	22	24,982	-52.1		13	3.7
20-----	22	26,429	-51.1		29	5.8
15-----	17	28,336	-48.8			
10-----	12	31,047	-45.6			
7------	7	33,420	-42.3			
5------						

NASHVILLE, TENN. (996 MB.)

Standard pressure surface (mb)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind	
					Direction	Speed
SURFACE	28	177	4.3	88	346	0.8
1,000--	28	140				
950----	28	557	4.6	73	268	7.4
900----	28	1,000	5.1	64	275	15.0
850----	28	1,466	4.1	54	281	21.6
800----	28	1,958	2.6	47	277	26.4
750----	28	2,477	.9	46	270	33.2
700----	28	3,031	- 1.8	44	271	35.2
650----	28	3,612	- 5.3	45	269	40.0
600----	28	4,241	- 9.2	49	272	44.5
550----	27	4,902	-13.5	45	271	47.8
500----	27	5,627	-18.1	43	271	53.8
450----	27	6,397	-23.4		278	49.9
400----	27	7,258	-30.0	38	278	59.1
350----	27	8,195	-36.8		281	63.0
300----	27	9,246	-44.3		274	70.3
250----	27	10,448	-51.8		274	72.5
200----	27	11,880	-55.0			
175----	27	12,732	-56.1			
150----	27	13,707	-58.1			
125----	27	14,847	-61.4			
100----	27	16,225	-64.3			
80-----	26	17,584	-64.2			
70-----	25	18,404	-63.9			
60-----	25	19,350	-62.1			
50-----	23	20,481	-59.4			
40-----	21	21,882	-57.7			
30-----	19	23,709	-55.8			
25-----	19	24,873	-54.9			
20-----	18	26,304	-53.7			
15-----	17	28,159	-51.1			
10-----	14	30,822	-47.3			
7------	9	33,191	-46.4			
5------	8	35,447	-44.0			

N. Y. INT. AP, IDLEWILD (1019 MB.)

Standard pressure surface (mb)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind	
					Direction	Speed
SURFACE	28	5	- 2.4	70	346	7.2
1,000--	28	155	- 3.1	69	357	7.2
950----	28	563	- 3.1	67	352	6.4
900----	28	989	- 3.2	61	285	8.2
850----	28	1,441	- 3.9	65	263	15.7
800----	28	1,918	- 5.2	63	260	23.1
750----	28	2,425	- 6.7	61	265	27.2
700----	27	2,956	- 8.8	57	266	31.7
650----	27	3,530	-11.1	[illegible]	268	38.3
600----	27	4,139	-14.3	43	270	43.1
550----	27	4,789	-18.6	44	271	46.6
500----	27	5,499	-22.5	42	273	51.9
450----	27	6,254	-27.9	43	272	56.5
400----	27	7,098	-33.7		275	63.0
350----	27	8,020	-40.8		274	71.5
300----	27	9,054	-47.1		274	82.0
250----	27	10,245	-53.1		274	83.7
200----	27	11,675	-55.0		277	79.7
175----	27	12,531	-53.6		277	74.6
150----	26	13,525	-54.0		278	65.5
125----	26	14,690	-56.2		275	57.3
100----	26	16,102	-58.1		275	45.3
80-----	26	17,507	-58.3		276	34.2
70-----	26	18,358	-58.2		279	26.4
60-----	26	19,322	-57.2		278	20.0
50-----	25	20,479	-55.8		285	13.6
40-----	24	21,919	-54.9		301	8.9
30-----	23	23,761	-54.1		301	6.8
25-----	23	24,932	-53.7		357	5.6
20-----	20	26,366	-52.5		334	6.2
15-----	13	28,245	-50.1			
10-----						
7------						
5------						

NOME, ALASKA (1014 MB.)

Standard pressure surface (mb)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind	
					Direction	Speed
SURFACE	28	7	- 8.6	84	79	10.1
1,000--	28	119	- 7.4	76	100	8.9
950----	28	518	- 7.5	75	137	10.1
900----	28	939	- 7.8	76	167	10.7
850----	28	1,383	- 9.0	71	187	10.9
800----	28	1,851	-10.6	61	198	12.0
750----	28	2,344	-12.9	58	197	12.2
700----	28	2,870	-15.2	53	192	14.2
650----	28	3,422	-18.3	50	[illegible]	15.3
600----	28	4,021	-21.8	47	201	16.1
550----	28	4,651	-25.8	49	204	16.7
500----	28	5,340	-30.6	50	203	18.3
450----	28	6,075	-35.9		207	19.4
400----	28	6,891	-41.4		213	21.0
350----	28	7,785	-47.1		216	26.0
300----	27	8,797	-52.5		221	30.1
250----	27	9,966	-54.9		222	31.1
200----	27	11,397	-52.9		225	34.0
175----	27	12,261	-51.3		225	35.4
150----	27	13,267	-49.5		229	31.7
125----	27	14,464	-48.5		231	33.4
100----	27	15,937	-47.2		235	33.0
80-----	27	17,414	-47.4		242	33.4
70-----	27	18,302	-46.7		244	32.8
60-----	27	19,324	-46.4		245	32.1
50-----	27	20,540	-46.0		249	30.7
40-----	27	22,029	-45.9		253	29.7
30-----	26	23,956	-45.1		258	28.8
25-----	25	25,172	-44.7		259	27.0
20-----	24	26,677	-44.1		259	29.7
15-----	14	28,621	-43.3			
10-----						
7------						
5------						

See reference note at end of table

RAWINSONDE DATA

Average monthly values

FEBRUARY 1962

Standard pressure surface (mb)	NORFOLK, VA. (1018 MB.)						NORTH PLATTE, NEBR (915 MB.)						OAKLAND, CALIF. (1014 MB.)						OKLAHOMA CITY, OKLA. (970 MB.)						OMAHA, NEBR. (968 MB.)					
	Number of observations	Dynamic height	Temperature	Relative humidity	Wind Direction	Wind Speed	Number of observations	Dynamic height	Temperature	Relative humidity	Wind Direction	Wind Speed	Number of observations	Dynamic height	Temperature	Relative humidity	Wind Direction	Wind Speed	Number of observations	Dynamic height	Temperature	Relative humidity	Wind Direction	Wind Speed	Number of observations	Dynamic height	Temperature	Relative humidity	Wind Direction	Wind Speed
SURFACE	27	9	3.0	79	9	2.3	28	848	- 8.3	77	344	4.5	28	6	8.5	79	151	2.3	28	392	2.8	74	1	1.0	28	403	- 6.8	85	28	1.9
1,000--	27	150	4.0	76	10	1.2	28	154					28	122	8.5	77	158	2.9	28	140					28	143				
950----	27	570	4.1	71	264	8.0	28	557					28	543	6.8	74	182	6.2	28	559	4.2	62	285	1.0	28	545	- 6.4	80	5	1.6
900----	27	1,007	3.4	67	266	14.4	28	979	- 5.7	70	338	5.4	28	989	5.5	65	207	7.0	28	999	6.4	50	269	6.8	28	971	- 3.2	72	309	6.6
850----	27	1,471	2.2	59	271	19.2	28	1,432	- 2.3	58	315	10.1	28	1,454	3.2	64	223	9.9	28	1,470	7.7	38	258	12.4	28	1,424	- 2.7	64	291	11.1
800----	27	1,960	1.5	51	269	26.4	28	1,913	- 3.0	57	294	12.8	28	1,944	.7	61	240	11.7	28	1,968	5.8	41	263	19.0	28	1,905	- 3.5	62	284	17.9
750----	27	2,474	- .7	47	270	31.1	28	2,421	- 4.6	57	290	19.2	28	2,459	- 2.2	58	250	12.6	28	2,495	2.7	39	263	20.8	28	2,409	- 5.1	59	280	24.1
700----	27	3,027	- 3.5	47	269	33.2	28	2,964	- 6.8	53	288	25.1	28	3,005	- 5.0	51	257	13.8	28	3,048	- .6	40	266	25.3	28	2,955	- 7.4	54	282	28.6
650----	27	3,605	- 6.5	45	267	37.5	28	3,538	- 9.5	50	285	29.7	28	3,579	- 8.4	47	268	15.5	28	3,632	- 4.1	38	259	30.9	28	3,523	-10.4	50	281	32.4
600----	27	4,233	-10.1	42	266	44.3	28	4,155	-13.5	50	282	32.8	28	4,201	-12.5	45	274	18.5	28	4,264	- 8.1	38	256	36.3	28	4,142	-13.8	45	280	37.9
550----	27	4,890	-14.1	43	267	49.4	28	4,813	-17.8	48	281	35.9	28	4,855	-17.0	41	275	20.4	28	4,929	-12.6	36	256	40.6	28	4,794	-18.1	45	279	41.6
500----	27	5,616	-18.7	43	270	55.2	28	5,518	-22.7	43	280	39.2	28	5,568	-22.1	43	272	23.5	28	5,655	-17.5		256	47.0	28	5,505	-22.9	42	278	46.6
450----	27	6,380	-24.2	41	273	60.0	28	6,278	-28.1	40	276	43.3	27	6,325	-28.1	43	270	26.8	28	6,430	-22.9		256	51.5	28	6,259	-28.3	39	278	51.1
400----	27	7,243	-30.5	41	275	64.9	28	7,119	-34.3		275	42.2	27	7,167	-34.3		267	29.9	28	7,289	-29.2		256	57.1	28	7,105	-34.7		275	55.2
350----	27	8,178	-37.8		272	70.3	28	8,039	-41.2		277	48.8	27	8,089	-41.1		273	32.4	28	8,229	-36.6		258	63.0	28	8,024	-41.8		274	61.0
300----	27	9,222	-45.9		275	70.1	28	9,068	-45.8		274	49.2	27	9,122	-47.4		274	37.9	28	9,279	-44.5		258	70.3	28	9,054	-48.1		272	66.1
250----	27	10,417	-52.8		276	79.3	28	10,250	-54.2		281	55.4	27	10,317	-51.2		275	44.9	28	10,481	-51.3		260	77.3	28	10,241	-53.7		272	74.8
200----	26	11,847	-54.7		278	87.6	28	11,678	-53.9		285	60.8	27	11,762	-52.3		275	48.4	28	11,916	-54.7		263	80.1	28	11,670	-54.1		270	78.1
175----	26	12,701	-54.8		279	85.5	28	12,535	-54.2		283	59.1	27	12,626	-52.3		278	42.9	28	12,768	-56.0		268	74.6	28	12,527	-53.4		270	80.2
150----	26	13,685	-56.3		278	73.8	28	13,524	-54.4		291	50.7	26	13,626	-53.4		274	42.9	28	13,745	-57.5		267	69.2	28	13,518	-54.4		271	69.6
125----	26	14,835	-59.4		275	63.7	28	14,687	-56.0		288	45.5	25	14,786	-56.2		276	38.7	27	14,890	-61.0		272	57.1	28	14,682	-55.7		270	59.7
100----	25	16,225	-63.0		276	51.7	28	16,101	-57.9		292	36.9	24	16,184	-59.2		282	26.8	27	16,264	-64.2		274	42.4	28	16,096	-58.0		272	47.6
80-----	25	17,596	-63.4		277	31.3	28	17,506	-58.4		295	22.0	24	17,578	-60.0		288	17.5	26	17,628	-64.6		277	25.3	27	17,496	-58.0		271	33.0
70-----	24	18,423	-61.7		280	22.7	28	18,354	-57.3		301	15.5	24	18,418	-59.8		291	11.9	25	18,454	-64.1		286	13.2	27	18,346	-57.8		276	27.8
60-----	24	19,375	-60.6		272	10.9	27	19,324	-56.6		328	10.9	24	19,378	-58.3		327	5.8	21	19,418	-61.5		292	5.4	26	19,304	-56.9		281	21.8
50-----	24	20,517	-58.4		282	7.6	27	20,480	-56.2		354	8.4	24	20,528	-57.1		48	8.0	18	20,559	-59.2		57	6.8	24	20,457	-56.8		286	14.6
40-----	23	21,926	-56.8		12	1.7	25	21,904	-54.8		33	13.6	24	21,942	-56.1		68	13.2	16	21,958	-57.3		61	13.6	21	21,874	-55.8		298	9.9
30-----	21	23,760	-54.9		72	7.0	24	23,749	-53.6		44	19.0	23	23,770	-54.9		73	19.2	14	23,790	-55.5		72	20.0	16	23,746	-54.2		25	7.8
25-----	21	24,929	-53.8		77	9.7	24	24,925	-52.9		56	22.5	21	24,932	-53.9		73	22.0	12	24,941	-54.1				16	24,918	-53.3		42	13.0
20-----	20	26,375	-51.5		74	7.4	18	26,339	-52.6				21	26,369	-52.6		79	30.9	11	26,366	-52.1				11	26,371	-52.1			
15-----	15	28,246	-47.4		118	4.3	11	28,151	-52.0				19	28,242	-51.5		77	33.0	6	28,237	-50.2				5	28,226	-50.5			
10-----							9	30,772	-48.7				17	30,903	-47.5		81	32.4												
7------													13	33,268	-46.5		92	26.0												
5------													8	35,474	-46.4															

Standard pressure surface (mb)	PEORIA, ILL. (994 MB.)						PITTSBURGH, PA. (975 MB.)						POINT ARGUELLO, CALIF. (1003 MB.)						PONAPE, CAROLINE IS. (1004 MB.)						PORTLAND, ME. (1018 MB.)					
	Number of observations	Dynamic height	Temperature	Relative humidity	Wind Direction	Wind Speed	Number of observations	Dynamic height	Temperature	Relative humidity	Wind Direction	Wind Speed	Number of observations	Dynamic height	Temperature	Relative humidity	Wind Direction	Wind Speed	Number of observations	Dynamic height	Temperature	Relative humidity	Wind Direction	Wind Speed	Number of observations	Dynamic height	Temperature	Relative humidity	Wind Direction	Wind Speed
SURFACE	28	200	- 5.0	83	8	2.3	28	353	- 3.9	80	261	2.3	28	113	7.7	93	141	1.6	28	39	26.3	84	51	7.0	28	20	-10.9	79	343	5.6
1,000--	28	147					25	148					28	135			1	1.7	28	75	26.1	84	56	9.3	28	158	- 9.9	63	358	6.6
950----	28	550	- 5.1	77	334	1.4	28	556	- 3.3	76	250	5.8	28	563	8.5	71	299	2.1	28	521	23.0	86	68	18.3	28	555	- 9.0	63	353	5.4
900----	28	978	- 3.4	76	287	9.1	28	982	- 3.5	74	254	16.1	28	1,006	6.8	62	277	5.4	28	999	19.7	86	73	21.8	28	973	- 9.4	62	300	5.4
850----	28	1,431	- 2.8	70	288	17.7	28	1,433	- 4.4	71	262	20.8	28	1,474	4.7	54	262	8.2	28	1,491	17.2	78	81	19.6	28	1,414	-10.4	58	282	10.3
800----	28	1,912	- 3.0	62	285	24.7	28	1,910	- 5.1	66	271	26.0	28	1,966	2.1	50	265	11.5	28	2,008	15.2	69	87	16.7	28	1,881	-10.5	46	279	16.5
750----	28	2,419	- 4.2	55	281	30.9	28	2,417	- 6.8	60	270	30.7	28	2,486	- .5	42	269	15.7	28	2,552	12.8	60	95	12.2	28	2,378	-11.3	42	269	22.2
700----	28	2,964	- 7.0	58	283	35.8	28	2,953	- 8.8	52	270	39.1	28	3,035	- 3.4	42	269	19.2	28	3,132	9.9	51	88	13.8	28	2,905	-13.4	44	265	29.3
650----	28	3,536	-10.2	57	281	40.8	28	3,521	-11.3		273	45.3	28	3,615	- 6.8	38	267	21.8	28	3,744	6.5	41	88	16.7	28	3,466	-15.5	42	262	35.4
600----	28	4,152	-14.0	51	277	44.5	28	4,136	-14.2		275	52.3	28	4,238	-11.0	35	269	24.5	28	4,399	2.8	38	83	18.5	28	4,068	-18.3	44	264	41.0
550----	28	4,805	-18.0	44	278	49.4	28	4,791	-17.8	44	276	56.5	28	4,898	-15.3	33	265	26.4	28	5,095	- 1.2		82	21.6	27	4,702	-22.2	41	266	44.9
500----	28	5,513	-22.6	40	273	55.0	28	5,499	-22.1		275	60.2	28	5,614	-20.4	33	267	28.2	28	5,854	- 5.4		84	22.7	27	5,402	-26.5		267	50.5
450----	28	6,274	-28.1	39	277	57.7	28	6,260	-27.1	45	275	60.8	28	6,380	-26.3	31	266	31.5	28	6,671	- 9.9		85	22.7	27	6,150	-31.2		266	57.1
400----	28	7,114	-34.1	40	273	65.7	28	7,105	-33.0	43	276	68.8	28	7,228	-32.4	27	268	34.6	28	7,577	-15.1		86	24.5	27	6,983	-36.5		267	60.8
350----	28	8,035	-40.4		271	69.6	28	8,032	-39.7		276	78.3	28	8,157	-38.7	34	266	41.6	28	8,573	-21.8		81	20.4	27	7,897	-42.8		269	63.7
300----	28	9,071	-46.6		268	76.9	27	9,073	-46.9		276	90.7	28	9,200	-45.5		264	49.4	28	9,690	-30.0		85	17.9	27	8,924	-48.5		267	73.1
250----	28	10,263	-52.5		267	83.7	27	10,262	-53.5				28	10,404	-50.2		263	57.3	27	10,965	-40.2		101	17.9	27	10,111	-53.0		268	75.4
200----	28	11,701	-53.6		271	81.4	27	11,690	-54.7				28	11,853	-52.1		269	54.4	27	12,448	-52.5		117	19.0	27	11,547	-53.0		269	69.0
175----	28	12,560	-53.0		275	74.2	26	12,537	-54.6				28	12,717	-52.4		271	52.5	27	13,297	-59.4		115	22.7	26	12,408	-52.5		271	65.3
150----	28	13,553	-53.9		276	68.2	26	13,522	-55.2				28	13,709	-54.7		269	49.5	27	14,245	-66.8		106	20.4	26	13,406	-51.9		270	58.7
125----	27	14,723	-55.9		279	54.6	25	14,679	-56.8				28	14,866	-58.1		270	45.3	27	15,325	-74.9		99	22.3	26	14,586	-52.6		268	49.9
100----	27	16,132	-58.3		280	45.5	25	16,089	-58.4				28	16,258	-62.4		269	35.9	27	16,593	-82.9		100	23.1	26	16,021	-54.8		267	45.3
80-----	27	17,531	-58.8		282	33.8	24	17,488	-58.5				28	17,632	-62.7		273	23.7	24	17,833	-81.4		106	19.2	25	17,442	-55.6		267	34.0
70-----	26	18,379	-58.0		283	26.4	24	18,328	-59.2				25	18,451	-61.9		274	15.0	21	18,596	-75.0		115	3.5	25	18,293	-55.3		267	31.1
60-----	25	19,341	-57.3		296	18.5	23	19,298	-57.9				23	19,399	-60.6		306	7.0	21	19,498	-70.9		266	5.6	24	19,271	-55.1		271	25.3
50-----	24	20,495	-56.2		327	12.2	23	20,451	-56.3				23	20,539	-58.8		30	4.3	23	20,591	-67.0		286	13.4	23	20,439	-54.5		276	18.8
40-----	24	21,916	-55.1		350	7.2	22	21,870	-55.6				23	21,945	-57.0		68	9.3	23	21,952	-63.2		281	16.7	22	21,865	-54.3		277	16.3
30-----	22	23,750	-54.3		6	8.9	21	23,703	-54.4				23	23,773	-55.2		69	16.9	23	23,739	-59.5		279	6.8	22	23,715	-53.5		291	12.2
25-----	20	24,933	-53.0		48	15.0	21	24,871	-53.9		36	20.2	21	24,928	-54.2		75	20.8	22	24,888	-57.0		65	6.6	21	24,885	-53.1		307	12.0
20-----	18	26,357	-51.6		45	11.9	20	26,308	-52.6				20	26,366	-52.7		82	24.3	20	26,312	-53.5		93	23.5	18	26,321	-51.5		318	13.2
15-----	13	28,208	-50.3		34	8.9	19	28,192	-51.1		35	22.0	16	28,238	-50.7		79	29.7	18	28,180	-50.0		93	42.9	7	28,186	-48.7			
10-----	12	30,849	-46.9		24	9.5	14	30,869	-47.5		25	21.6	14	30,890	-47.3		80	28.8	14	30,856	-44.4		92	55.0						
7------							12	33,216	-45.6				5	33,290	-44.6				6	33,261	-42.1									
5------							9	35,457	-45.3																					

Standard pressure surface (mb)	RAPID CITY, S. DAK. (902 MB.)						ST. CLOUD, MINN. (980 MB.)						ST. PAUL IS., ALASKA (1004 MB.)						SALEM, OREG. (1006 MB.)						SALT LAKE CITY, UTAH (870 MB.)					
	Number of observations	Dynamic height	Temperature	Relative humidity	Wind Direction	Wind Speed	Number of observations	Dynamic height	Temperature	Relative humidity	Wind Direction	Wind Speed	Number of observations	Dynamic height	Temperature	Relative humidity	Wind Direction	Wind Speed	Number of observations	Dynamic height	Temperature	Relative humidity	Wind Direction	Wind Speed	Number of observations	Dynamic height	Temperature	Relative humidity	Wind Direction	Wind Speed
SURFACE	28	966	- 7.1	79	355	4.7	28	316	-13.3	79	358	3.3	28	10	- 1.6	93	145	9.5	28	61	2.4	90	181	3.9	28	1,288	- 1.2	86	163	3.7
1,000--	28	157					28	163					28	39			152	14.6	28	110			169	2.9	28	161				
950----	28	557					28	554	-12.6	76	25	3.1	28	446	- 2.2	79	161	21.2	28	524	4.8	71	182	4.7	28	573				
900----	28	986			351	5.6	28	968	-11.3	76	302	2.7	28	877	- 3.9	74	170	24.1	28	969	3.2	67	192	8.7	28	1,013				
850----	28	1,435	- 5.1	59	316	8.9	28	1,407	-10.5	72	300	8.4	28	1,326	- 5.8	69	170	23.3	28	1,430	.5	67	202	11.9	28	1,470	- .1	72	174	6.0
800----	28	1,910	- 6.6	61	305	15.7	28	1,874	-10.5	69	297	13.2	28	1,800	- 8.0	61	174	22.5	28	1,914	- 2.7	65	217	11.9	28	1,956	- .5	64	197	7.8
750----	28	2,410	- 8.4	62	298	18.3	28	2,369	-11.8	70	292	17.7	28	2,299	-11.0	54	177	22.2	28	2,419	- 5.7	63	232	11.3	28	2,473	- 3.5	62	235	8.9
700----	28	2,946	-10.6	60	293	23.1	28	2,896	-13.8	64	287	21.6	28	2,826	-13.9	50	181	23.9	28	2,961	- 8.8	60	242	12.6	28	3,012	- 7.0	64	258	12.2
650----	28	3,510	-13.4	58	286	26.2	28	3,453	-16.7	62	287	24.1	28	3,380	-17.3	49	184	26.8	28	3,528	-12.1	61	253	14.0	28	3,585	-10.8	67	261	16.9
600----	28	4,119	-16.8	55	283	28.0	28	4,054	-19.9	61	285	28.4	28	3,982	-21.0	47	184	27.4	28	4,140	-16.0	56	263	14.0	28	4,198	-14.9	65	265	21.6
550----	28	4,765	-20.7	56	283	34.2	28	4,693	-23.6	58	283	34.4	28	4,611	-25.0	45	185	31.5	28	4,784	-20.2	49	271	13.6	28	4,849	-19.0	60	264	26.2
500----	28	5,465	-25.3	52	283	38.5	28	5,386	-28.0	57	286	40.0	28	5,306	-29.8	43	184	31.3	28	5,490	-25.1	48	270	15.2	28	5,554	-24.1	55	261	29.0
450----	28	6,218	-30.6	47	280	42.2	28	6,127	-33.0	52	283	42.4	28	6,042	-35.4		185	32.8	28	6,240	-30.8	46	275	15.2	28	6,313	-29.6	50	261	33.2
400----	28	7,046	-37.2		277	48.0	28	6,954	-38.8		282	50.3	28	6,859	-41.1		190	34.6	28	7,073	-37.0		283	16.7	28	7,145	-35.7		262	35.9
350----	28	7,955	-44.0		272	49.2	28	7,858	-45.1		280	56.3	28	7,756	-46.7		189	38.1	28	7,983	-44.0		280	20.2	28	8,061	-42.4		261	38.1
300----	28	8,974	-51.0		271	56.9	28	8,873	-51.3		280	61.8	28	8,765	-51.9		190	40.0	28	9,003	-49.9		270	23.7	28	9,086	-49.3		268	41.4
250----	28	10,149	-54.2		272	62.2	28	10,045	-54.3		275	66.3	28	9,942	-53.0		190	36.5	28	10,185	-53.5		268	31.5	28	10,270	-52.7		272	39.8
200----	28	11,580	-53.9		271	57.7	28	11,479	-52.7		275	63.9	28	11,386	-50.6		194	32.6	27	11,626	-53.4		275	32.6	28	11,707	-52.9		271	40.2
175----	27	12,434	-53.5		269	57.1	28	12,343	-51.6		275	59.8	28	12,260	-48.5		195	32.1	27	12,488	-51.9		274	29.9	28	12,567	-53.1		274	40.4
150----	27	13,427	-53.0		272	54.4	28	13,344	-51.4		276	55.4	28	13,276	-47.3		198	30.5	27	13,489	-51.2		275	30.5	28	13,560	-53.2		277	39.2
125----	27	14,599	-53.9		272	47.8	28	14,524	-52.7		277	51.5	28	14,484	-46.6		200	25.5	26	14,671	-52.8		277	27.8	28	14,729	-55.3		276	36.1
100----	27	16,027	-55.6		274	40.0	27	15,968	-53.9		280	44.3	28	15,964	-46.6		199	24.9	26	16,106	-54.5		286	21.0	28	16,145	-57.1		281	31.1
80-----	25	17,457	-56.2		282	29.5	26	17,394	-55.6		276	38.1	28	17,446	-46.2		201	19.8	26	17,536	-54.5		294	13.4	28	17,551	-58.5		281	21.6
70-----	25	18,313	-55.1		287	23.7	26	18,248	-54.8		279	34.8	27	18,334	-45.7		199	19.2	26	18,396	-54.2		309	11.5	27	18,398	-57.2		287	17.1
60-----	25	19,293	-54.8		292	20.4	26	19,234	-54.2		282	30.1	27	19,362	-45.5		198	17.3	25	19,382	-53.4		339	8.0	26	19,363	-56.4		294	10.5
50-----	25	20,456	-54.9		297	16.5	26	20,405	-53.7		293	22.9	27	20,580	-45.1		194	13.2	24	20,557	-52.8		360	7.6	25	20,533	-55.3		309	5.8
40-----	23	21,881	-53.8		321	11.3	25	21,847	-53.6		297	16.7	27	22,072	-44.9		188	12.2	23	22,015	-52.3		43	11.1	24	21,953	-54.9		19	7.0
30-----	20	23,744	-52.8		13	10.7	23	23,704	-53.0		325	14.8	25	24,001	-44.8		188	8.7	20	23,869	-51.5		52	14.6	21	23,805	-53.2		62	13.4
25-----	16	24,916	-52.0		8	10.5	21	24,867	-52.6		2	11.5	23	25,225	-44.8		175	9.5	17	25,047	-50.6		52	17.3	20	24,982	-53.0		62	16.3
20-----	13	26,430	-51.2				12	26,366	-52.2				22	26,726	-44.4		165	10.3	12	26,531	-49.8				17	26,423	-52.3		68	21.0
15-----	7	28,335	-50.2				8	28,256	-49.7				11	28,665	-44.3				5	28,478	-46.9				10	28,252	-51.4			

See reference note at end of table

RAWINSONDE DATA

Average monthly values

FEBRUARY 1962

SAN ANTONIO, TEXAS (986 MB.)

Standard pressure surface (mb.)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind Direction	Wind Speed
SURFACE	28	243	12.4	80	10	1.9
1,000	28	125				
950	28	559	13.2	71	215	1.7
900	28	1,012	13.5	62	216	9.1
850	28	1,494	12.5	48	230	13.2
800	28	2,001	10.8	37	235	15.0
750	28	2,533	7.6	34	237	16.3
700	28	3,102	4.7		251	16.5
650	28	3,700	.8		247	19.2
600	28	4,341	-3.6		248	22.7
550	28	5,016	-8.2		247	27.2
500	28	5,757	-13.4		252	32.4
450	28	6,546	-18.9		253	38.1
400	28	7,420	-25.2		251	44.5
350	28	8,375	-32.4		255	51.5
300	28	9,449	-40.0		257	58.7
250	28	10,671	-48.0		255	68.6
200	28	12,[illegible]25	-54.5		257	71.1
175	27	12,967	-57.7		257	69.8
150	26	13,929	-61.2		258	64.1
125	25	15,042	-65.8		259	55.2
100	24	16,383	-70.6		262	41.6
80	21	17,705	-72.1		259	26.8
70	20	18,502	-71.2		267	16.3
60	19	19,422	-67.7		264	8.2
50	18	20,528	-63.4		68	2.9
40	18	21,909	-60.1		76	7.0
30	18	23,713	-57.7		82	11.3
25	16	24,871	-56.1		87	17.7
20	13	26,297	-54.4			
15	7	28,127	-51.2			
10						
7						
5						

SAN DIEGO, CALIF. (1002 MB.)

Standard pressure surface (mb.)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind Direction	Wind Speed
SURFACE	28	124	9.2	87	157	1.0
1,000	28	139			[illegible]	.6
950	28	562	9.3	70	237	4.1
900	28	1,013	7.6	62	246	6.2
850	28	1,483	5.5	55	255	9.7
800	28	1,977	3.4	47	259	13.2
750	28	2,495	.6	46	260	15.7
700	28	3,050	-2.4	41	260	19.8
650	28	3,629	-5.8	37	260	23.7
600	28	4,258	-9.7		261	29.0
550	28	4,917	-14.3		263	31.9
500	28	5,642	-18.9		265	34.6
450	28	6,409	-24.4		259	38.5
400	28	7,268	-30.6		259	41.4
350	28	8,203	-37.2		261	48.2
300	28	9,253	-44.0		265	55.4
250	28	10,461	-49.7		268	58.3
200	28	11,907	-53.3		268	61.4
175	28	12,766	-53.8		268	60.2
150	28	13,750	-56.2		268	55.8
125	28	14,898	-60.4		268	48.2
100	28	16,274	-64.4		271	37.1
80	28	17,633	-65.0		271	25.5
70	27	18,450	-64.7		276	14.0
60	27	19,392	-62.5		304	3.7
50	26	20,523	-59.6		73	5.6
40	24	21,918	-58.0		64	10.7
30	24	23,740	-55.9		75	20.6
25	24	24,903	-54.4		73	21.0
20	21	26,348	-52.3		83	29.3
15	9	28,216	-48.5			
10						
7						
5						

SAN JUAN, P. R. (1017 MB.)

Standard pressure surface (mb.)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind Direction	Wind Speed
SURFACE	28	6	21.4	85	108	1.6
1,000	28	151	22.3	74	92	8.7
950	28	591	19.2	73	87	12.8
900	28	1,059	15.9	71	92	12.8
850	28	1,543	13.0	64	75	12.4
800	28	2,050	10.5	58	79	10.5
750	28	2,584	8.9	41	71	10.5
700	28	3,156	7.8		74	7.2
650	28	3,759	5.3		56	6.0
600	28	4,413	1.8		24	3.9
550	28	5,102	-2.4		332	4.3
500	28	5,859	-7.1		322	8.0
450	28	6,664	-12.6		314	10.9
400	28	7,561	-19.1		307	15.2
350	28	8,541	-26.3		311	21.0
300	28	9,635	-34.8		298	27.6
250	28	10,883	-43.8		289	36.9
200	28	12,350	-53.5		281	43.3
175	28	13,198	-58.7		282	41.6
150	28	14,154	-64.0		286	40.0
125	28	15,254	-69.8		294	34.4
100	28	16,561	-76.3		305	24.7
80	28	17,839	-78.8		318	14.4
70	28	18,603	-76.7		330	11.5
60	28	19,500	-71.4		2	8.5
50	28	20,593	-66.2		48	7.6
40	28	21,965	-60.4		63	12.4
30	27	23,774	-56.1		77	12.8
25	27	24,942	-52.9		78	14.4
20	26	26,390	-49.9		91	12.6
15	20	28,274	-47.5		98	12.4
10						
7						
5						

SANTA MONICA, CALIF. (1012 MB.)

Standard pressure surface (mb.)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind Direction	Wind Speed
SURFACE	28	38	10.1	83	53	3.1
1,000	28	138	10.5	75	71	3.7
950	28	563	9.2	67	128	2.7
900	28	1,011	7.4	61	204	4.9
850	28	1,479	4.8	60	224	7.8
800	28	1,972	2.6	52	247	10.3
750	28	2,491	-.2	50	255	13.8
700	28	3,040	-3.4	50	260	18.1
650	28	3,620	-6.8	47	258	22.3
600	28	4,243	-10.5		256	24.9
550	28	4,902	-14.6		264	29.1
500	28	5,622	-19.7		264	31.5
450	28	6,388	-25.6		263	33.8
400	28	7,239	-31.5		268	39.1
350	28	8,171	-38.2		266	45.5
300	28	9,215	-45.1		269	46.8
250	28	10,419	-50.4		273	55.4
200	28	11,865	-52.7		276	56.5
175	28	12,725	-53.4		273	52.5
150	28	13,713	-55.8		271	51.9
125	28	14,864	-59.4		275	47.0
100	28	16,248	-63.2		276	36.9
80	28	17,612	-64.5		279	21.2
70	28	18,430	-63.1		286	13.4
60	28	19,379	-61.8		328	6.2
50	28	20,514	-59.8		61	4.5
40	26	21,914	-57.5		74	9.5
30	25	23,737	-55.9		74	17.3
25	24	24,897	-54.7		76	21.6
20	19	26,313	-53.4		75	23.3
15	8	28,100	-51.5			
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SAULT STE. MARIE, MICH. (992 MB.)

Standard pressure surface (mb.)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind Direction	Wind Speed
SURFACE	28	221	-15.2	71	70	3.9
1,000	28	156				
950	28	544	-14.0	58	85	4.5
900	28	955	-14.0	59	326	1.4
850	28	1,389	-14.1	59	287	6.4
800	28	1,849	-14.2	51	293	10.9
750	28	2,337	-14.6	49	290	15.9
700	28	2,860	-16.5	50	285	19.2
650	28	3,414	-18.9	48	282	26.2
600	28	4,008	-21.7	47	279	32.3
550	28	4,644	-25.1	44	278	36.5
500	28	5,331	-29.3		280	45.3
450	28	6,073	-34.3		280	50.3
400	28	6,892	-40.0		279	57.1
350	28	7,793	-46.1		277	65.1
300	28	8,805	-51.7		274	73.3
250	28	9,981	-53.2		278	69.8
200	28	11,424	-51.3		280	65.5
175	28	12,293	-50.7		279	57.5
150	28	13,297	-50.8		281	57.7
125	28	14,484	-51.5		283	48.6
100	28	15,928	-52.7		283	42.6
80	28	17,368	-53.4		288	37.7
70	28	18,230	-53.2		288	33.8
60	28	19,219	-53.7		292	30.1
50	28	20,393	-53.0		299	25.8
40	28	21,831	-53.2		306	24.7
30	27	23,708	-52.7		328	18.7
25	27	24,888	-51.9		341	18.8
20	27	26,335	-51.6		342	22.7
15	26	28,197	-50.0		355	25.1
10	19	30,833	-48.6		346	19.8
7	15	33,225	-46.7			
5	10	35,437	-42.7			

SEATTLE, WASH. (998 MB.)

Standard pressure surface (mb.)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind Direction	Wind Speed
SURFACE	28	125	4.3	78	113	2.1
1,000	28	110			159	2.1
950	28	529	4.3	66	185	4.9
900	28	968	1.9	65	207	6.0
850	28	1,426	-.8	66	211	6.8
800	28	1,908	-3.7	67	241	6.6
750	28	2,414	-6.7	67	250	8.0
700	28	2,952	-9.9	61	258	9.1
650	28	3,521	-13.1	55	272	11.9
600	28	4,126	-16.8	52	273	13.0
550	28	4,772	-21.2	51	283	14.2
500	28	5,472	-25.8	45	290	16.9
450	28	6,221	-31.4	44	298	19.8
400	28	7,051	-37.8		303	21.6
350	28	7,958	-44.7		298	25.5
300	28	8,974	-50.8		300	26.4
250	28	10,152	-53.9		301	26.6
200	28	11,585	-53.1		299	25.8
175	28	12,447	-52.2		297	26.4
150	28	13,448	-51.3		296	28.0
125	28	14,632	-51.7		296	26.0
100	28	16,076	-52.3		298	21.6
80	28	17,320	-52.4		307	16.3
70	28	18,390	-52.0		315	14.4
60	28	19,383	-52.0		334	12.6
50	27	20,559	-51.4		352	11.1
40	26	22,008	-50.8		16	11.5
30	26	23,883	-50.6		32	14.6
25	25	25,068	-50.1		42	18.1
20	22	26,545	-49.8		60	20.8
15	7	28,460	-48.4			
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SHEMYA, ALASKA (988 MB.)

Standard pressure surface (mb.)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind Direction	Wind Speed
SURFACE	27	38	0.1	85	306	2.3
1,000	27	-58				
950	27	351	-2.2	80	1	2.3
900	27	780	-5.2	79	299	1.0
850	27	1,227	-8.3	78	207	2.1
800	27	1,695	-11.5	75	212	5.4
750	27	2,184	-14.1	63	202	6.8
700	27	2,709	-16.7	52	200	8.4
650	27	3,256	-19.7	48	202	10.7
600	27	3,852	-23.7	49	199	13.0
550	27	4,476	-28.0	51	199	14.8
500	27	5,161	-32.6	50	194	16.7
450	27	5,889	-37.9		193	19.2
400	27	6,698	-43.2		199	25.1
350	27	7,585	-48.8		190	25.3
300	27	8,589	-52.3		196	27.8
250	27	9,765	-52.8		202	28.2
200	27	11,220	-48.2		202	26.4
175	26	12,095	-47.1		202	27.4
150	25	13,118	-46.3		207	27.4
125	25	14,332	-45.1		207	26.0
100	25	15,824	-44.5		199	25.1
80	24	17,314	-44.0		196	24.9
70	23	18,213	-44.1		194	23.5
60	22	19,242	-43.4		191	21.4
50	21	20,462	-44.3		187	20.6
40	20	21,948	-45.2		180	18.8
30	18	23,873	-45.4		171	18.3
25	17	25,090	-44.7		165	18.1
20	13	26,587	-44.3		161	22.5
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SHREVEPORT, LA. (1007 MB.)

Standard pressure surface (mb.)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind Direction	Wind Speed
SURFACE	28	79	10.7	91	153	2.5
1,000	28	139	10.6	84	162	2.7
950	28	568	12.1	65	223	8.5
900	28	1,021	11.1	52	235	11.7
850	28	1,497	9.9	47	247	14.0
800	28	1,999	7.4	45	256	16.1
750	28	2,524	4.7	35	256	18.5
700	28	3,086	1.7		259	19.6
650	28	3,675	-1.5		255	24.7
600	28	4,313	-5.6		254	27.2
550	28	4,983	-10.2		258	32.6
500	28	5,717	-15.5		259	37.3
450	28	6,499	-20.9		261	40.8
400	28	7,366	-26.9		262	46.0
350	28	8,315	-34.1		262	51.5
300	28	9,376	-42.2		264	57.5
250	28	10,589	-49.6		265	65.1
200	28	12,032	-55.1		263	70.9
175	28	12,881	-57.1		264	72.3
150	28	13,850	-60.0		262	60.2
125	28	14,978	-63.9		262	54.2
100	27	16,326	-68.0		266	48.4
80	25	17,668	-69.4		263	37.3
70	23	18,470	-67.7		264	27.0
60	23	19,391	-65.4		274	13.4
50	23	20,510	-62.0		298	4.3
40	22	21,901	-59.2		44	1.0
30	22	23,714	-56.7		70	8.7
25	22	24,873	-55.5		66	12.6
20	22	26,301	-53.8		79	16.7
15	21	28,165	-50.3		87	18.1
10	18	30,826	-46.5		82	13.4
7	14	32,215	-42.8		66	6.4
5	10	35,506	-39.9			

SPOKANE, WASH. (929 MB.)

Standard pressure surface (mb.)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind Direction	Wind Speed
SURFACE	28	722	-2.0	77	120	1.2
1,000	28	134				
950	28	546				
900	28	978	-1.0	70	154	3.5
850	28	1,433	-2.7	68	212	4.1
800	28	1,912	-4.8	66	244	7.8
750	28	2,417	-7.7	64	257	9.9
700	28	2,951	-11.1	65	273	10.5
650	28	3,513	-14.2	61	278	13.0
600	28	4,121	-17.9	56	278	16.1
550	28	4,761	-22.0	51	283	19.0
500	28	5,460	-27.2	47	285	21.6
450	28	6,203	-32.9	46	283	24.1
400	28	7,030	-39.0		285	26.4
350	28	7,934	-44.9		285	29.7
300	28	8,950	-50.8		285	33.6
250	28	10,129	-53.7		291	33.8
200	28	11,565	-52.8		289	33.0
175	28	12,430	-51.3		288	32.8
150	28	13,434	-50.3		284	31.7
125	28	14,622	-51.2		289	30.5
100	28	16,072	-52.0		293	24.5
80	28	17,516	-52.0		303	18.8
70	28	18,388	-51.8		309	16.9
60	28	19,381	-51.4		321	14.6
50	28	20,566	-50.9		339	12.2
40	28	22,021	-50.3		3	12.0
30	27	23,893	-50.3		15	15.9
25	22	25,113	-49.6		51	18.8
20	6	26,654	-48.2			
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TAMPA, FLA. (1018 MB.)

Standard pressure surface (mb.)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind Direction	Wind Speed
SURFACE	27	8	15.3	87	100	1.6
1,000	27	159	16.3	80	119	3.3
950	27	595	16.3	64	201	6.4
900	27	1,056	14.2	55	224	8.5
850	27	1,536	11.8	52	233	11.1
800	27	2,042	9.6	40	244	12.2
750	27	2,580	7.2	34	257	15.2
700	27	3,140	4.7		264	17.7
650	26	3,737	1.2		260	21.4
600	26	4,379	-2.4		268	23.5
550	26	5,056	-6.7		273	27.4
500	26	5,801	-11.7		275	31.9
450	26	6,593	-17.5		274	35.9
400	26	7,472	-24.1		275	40.6
350	25	8,433	-31.0		273	47.4
300	25	9,508	-39.2		274	53.8
250	25	10,737	-46.8		272	63.0
200	25	12,191	-53.9		271	68.8
175	25	13,042	-57.4		272	67.8
150	25	14,007	-61.6		273	62.4
125	24	15,122	-67.0		275	55.4
100	24	16,456	-71.3		274	42.2
80	24	17,769	-73.0		278	28.0
70	23	18,565	-71.3		282	20.0
60	23	19,471	-67.1		286	10.1
50	23	20,583	-63.6		17	4.3
40	23	21,962	-60.1		40	6.0
30	20	23,776	-56.0		62	9.3
25	19	24,937	-53.7		74	11.1
20	17	26,383	-51.1		75	12.6
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TATOOSH IS., WASH. (1009 MB.)

Standard pressure surface (mb.)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind Direction	Wind Speed
SURFACE	28	31	6.4	77	91	9.1
1,000	28	105			85	9.5
950	28	519	4.2	70	129	6.4
900	28	962	1.5	71	176	5.2
850	28	1,421	-1.1	68	203	5.2
800	28	1,902	-3.8	64	216	5.8
750	28	2,407	-6.5	57	247	6.0
700	28	2,946	-9.5	50	273	6.6
650	28	3,511	-12.9	49	268	5.6
600	28	4,121	-16.6	42	282	8.0
550	28	4,761	-20.8	39	267	9.1
500	28	5,468	-25.7	38	272	13.4
450	28	6,210	-31.4		258	15.5
400	28	7,046	-38.0		261	19.0
350	28	7,952	-44.8		266	20.0
300	28	8,968	-50.8		277	20.4
250	28	10,144	-54.1		281	21.6
200	28	11,574	-53.7		286	24.9
175	28	12,434	-52.0		286	24.9
150	28	13,435	-50.9		285	24.3
125	28	14,620	-51.3		278	22.5
100	28	16,065	-52.5		286	15.5
80	28	17,509	-51.7		304	11.3
70	28	18,371	-51.5		315	8.4
60	28	19,376	-51.1		350	7.0
50	28	20,562	-50.7		18	10.7
40	27	22,010	-50.7		36	10.1
30	23	23,863	-50.2		57	15.9
25	23	25,053	-50.2		61	18.8
20	21	26,504	-49.7		68	23.7
15	20	28,372	-49.3		73	27.2
10	19	31,063	-47.9		76	36.1
7	12	33,491	-47.2			

TOPEKA, KANS. (984 MB.)

Standard pressure surface (mb.)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind Direction	Wind Speed
SURFACE	28	269	-2.5	85	12	2.5
1,000	28	143				
950	28	553	-2.1	74	33	1.9
900	28	982	.4	62	275	6.8
850	28	1,441	.6	56	288	12.6
800	28	1,927	-.3	47	277	18.8
750	28	2,440	-2.3	49	271	23.3
700	28	2,987	-5.2	50	271	29.7
650	28	3,563	-8.5	49	272	35.0
600	28	4,182	-12.5	47	271	37.9
550	28	4,838	-16.7	40	271	41.8
500	28	5,551	-21.4	37	270	49.7
450	28	6,313	-26.9		268	52.8
400	28	7,159	-33.0		266	59.5
350	28	8,086	-39.5		266	67.2
300	28	9,126	-46.5		265	75.2
250	28	10,317	-53.5		270	75.6
200	28	11,747	-54.5		275	77.9
175	28	12,603	-54.7		278	77.5
150	28	13,586	-55.8		280	66.6
125	28	14,741	-58.2		278	53.6
100	28	16,138	-60.4		280	39.8
80	28	17,524	-61.6		286	26.0
70	28	18,360	-60.6		293	17.3
60	28	19,315	-59.7		315	12.0
50	27	20,456	-58.1		352	10.1
40	24	21,869	-57.0		28	13.4
30	22	23,694	-55.8		44	18.5
25	19	24,857	-54.9		47	18.3
20	15	26,282	-52.9		42	21.2
15	8	28,147	-50.3			
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TRUK, CAROLINE IS. (1009 MB.)

Standard pressure surface (mb.)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind Direction	Wind Speed
SURFACE	28	2	27.0	81	53	6.2
1,000	28	85	26.4	80	62	9.3
950	28	533	23.4	81	78	18.1
900	28	1,010	20.5	78	84	17.7
850	28	1,503	17.9	69	92	16.3
800	28	2,022	15.6	63	97	15.5
750	28	2,570	13.3	53	97	15.5
700	28	3,147	10.4	49	96	15.7
650	28	3,762	7.1	44	94	17.5
600	28	4,416	3.3	41	91	21.0
550	28	5,114	-.8	39	90	21.4
500	28	5,873	-5.3		86	22.3
450	28	6,693	-9.7		92	25.1
400	28	7,597	-15.0		90	22.0
350	28	8,595	-21.4		87	23.7
300	28	9,713	-29.7		99	22.0
250	28	10,986	-39.8		111	21.0
200	28	12,472	-52.1		127	24.1
175	28	13,323	-59.0		126	22.9
150	27	14,273	-66.6		121	25.1
125	27	15,353	-74.9		113	27.4
100	26	16,623	-83.4		103	33.2
80	25	17,869	-78.9		111	20.4
70	24	18,635	-74.5		119	3.3
60	24	19,540	-70.7		267	4.1
50	23	20,632	-67.2		278	11.3
40	23	21,991	-63.2		279	9.5
30	23	23,779	-59.5		286	2.5
25	23	24,929	-56.4		80	7.2
20	23	26,354	-53.9		97	24.1
15	23	28,216	-50.4		97	41.2
10	16	30,901	-44.5		98	55.0
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TUCSON, ARIZ. (925 MB.)

Standard pressure surface (mb.)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind Direction	Wind Speed
SURFACE	28	789	7.6	68	167	4.7
1,000	28	138				
950	28	564				
900	28	1,015	11.1	51	197	4.1
850	28	1,490	8.7	47	225	6.2
800	28	1,989	5.4	19	225	9.5
750	28	2,510	2.6	42	243	13.4
700	28	3,069	-.6	36	251	16.3
650	28	3,649	-4.2	35	254	21.4
600	28	4,284	-8.2	31	256	27.2
550	28	4,943	-12.8		254	32.3
500	28	5,675	-17.7		253	37.5
450	28	6,447	-23.0		251	45.1
400	28	7,309	-29.0		251	51.3
350	28	8,249	-35.8		256	53.4
300	28	9,303	-43.1		258	56.5
250	28	10,511	-49.7		263	57.9
200	28	11,959	-52.4		264	59.3
175	28	12,819	-54.0		269	59.3
150	28	13,803	-56.8		271	55.8
125	28	14,946	-61.3		275	44.9
100	28	16,313	-66.1		274	36.1
80	28	17,660	-67.6		274	25.5
70	28	18,477	-65.3		269	9.3
60	28	19,412	-62.8		48	2.9
50	28	20,543	-60.2		81	6.8
40	27	21,941	-57.7		77	14.6
30	26	23,762	-55.8		80	19.0
25	25	24,930	-54.5		81	22.7
20	24	26,359	-52.6		80	26.6
15	23	28,233	-49.6		84	24.3
10	17	30,917	-44.5		96	21.2
7	12	33,338	-41.6			

WAKE IS., PACIFIC AREA (1015 MB.)

Standard pressure surface (mb.)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind Direction	Wind Speed
SURFACE	28	5	23.9	75	57	9.1
1,000	28	136	22.7	76	59	10.1
950	28	577	19.1	80	64	8.4
900	28	1,045	16.1	79	68	4.3
850	28	1,529	13.8	69	146	.6
800	28	2,040	12.3	47	224	3.3
750	28	2,580	11.2		279	3.3
700	28	3,153	8.5		284	7.2
650	28	3,759	5.4		284	12.0
600	28	4,413	1.8		285	15.2
550	28	5,106	-2.2		292	21.0
500	28	5,861	-5.8		284	22.5
450	28	6,678	-10.8		292	25.3
400	28	7,577	-16.3		291	28.8
350	28	8,570	-22.2		287	31.5
300	28	9,686	-30.1		288	31.9
250	28	10,956	-40.3		285	34.4
200	28	12,440	-52.1		283	34.4
175	27	13,289	-58.8		281	33.2
150	27	14,240	-66.2		282	30.1
125	27	15,324	-73.9		279	31.1
100	27	16,602	-80.9		274	24.5
80	27	17,849	-82.1		272	16.5
70	26	18,606	-78.0		271	12.0
60	26	19,502	-71.6		272	8.9
50	26	20,596	-65.3		233	1.9
40	26	21,972	-60.3		145	4.1
30	25	23,777	-57.3		97	9.9
25	25	24,937	-54.4		89	11.7
20	24	26,370	-52.2		90	11.5
15	22	28,250	-48.6		76	12.6
10	12	30,955	-43.5			
7						

See reference note at end of table

RAWINSONDE DATA

Average monthly values

	WASHINGTON, D. C. (1009 MB.)						WINNEMUCCA, NEV. (866 MB.)					
					Wind						Wind	
Standard pressure surface mb	Number of observations	Dynamic height	Temperature	Relative humidity	Direction	Speed	Number of observations	Dynamic height	Temperature	Relative humidity	Direction	Speed
SURFACE	27	84	- 2.9	79	357	1.9	28	1,310	- 4.7	89	191	0.8
1,000	27	151			341	3.9	28	164				
950	27	560	- 1.6	66	280	4.9	28	571				
900	27	991	- 1.3	68	259	11.9	28	1,008				
850	27	1,447	- 1.7	68	264	17.5	28	1,460	- 1.1	75	200	1.6
800	27	1,929	- 2.6	64	274	24.5	28	1,944	- 1.5	59	221	5.6
750	27	2,439	- 3.3	55	268	30.1	28	2,451	- 4.4	56	241	8.9
700	27	2,985	- 5.3	50	269	34.2	28	2,996	- 7.9	57	250	12.2
650	27	3,559	- 8.3	48	270	40.0	28	3,563	-11.3	52	258	15.5
600	27	4,181	-11.9	44	272	44.3	28	4,179	-14.9	48	260	16.9
550	27	4,839	-15.7		273	48.4	28	4,826	-19.2	48	265	21.6
500	27	5,556	-20.2	38	272	54.4	28	5,535	-24.0	48	263	24.1
450	27	6,323	-25.6	41	269	60.8	28	6,286	-29.7	45	265	25.6
400	27	7,174	-31.5	40	271	64.7	28	7,125	-36.1		264	28.4
350	27	8,106	-38.3		269	70.3	28	8,038	-43.1		258	29.1
300	27	9,149	-45.9		269	80.2	28	9,061	-49.6		263	34.8
250	27	10,342	-53.0		272	80.1	28	10,245	-52.8		260	44.7
200	27	11,769	-55.8		277	88.2	28	11,685	-52.6		267	37.9
175	27	12,620	-55.6		279	81.4	28	12,548	-52.1		266	36.9
150	27	13,602	-55.7		278	71.3	28	13,543	-53.0		273	36.5
125	26	14,764	-56.8		279	56.0	28	14,715	-54.5		282	33.6
100	26	16,164	-59.9		276	49.2	28	16,137	-57.0		277	27.2
80	26	17,554	-61.0		278	33.0	28	17,548	-57.2		278	18.5
70	24	18,395	-59.9		276	26.2	28	18,397	-57.0		286	11.3
60	24	19,350	-58.4		281	15.5	27	19,373	-55.7		314	5.4
50	23	20,503	-57.0		279	17.7	25	20,533	-55.3		37	7.8
40	22	21,919	-55.7		294	7.2	24	21,970	-54.7		69	11.3
30	21	23,756	-54.3		326	3.7	20	23,805	-53.3		60	16.3
25	18	24,914	-53.8		328	3.1	16	24,972	-52.6		64	16.7
20	16	26,376	-52.6		355	2.9	6	26,401	-51.9			
15	13	28,245	-50.2		346	5.8						
10	8	30,952	-46.6									

	WINSLOW, ARIZ. (851 MB.)						YAKUTAT, ALASKA (1016 MB.)					
					Wind						Wind	
Standard pressure surface mb	Number of observations	Dynamic height	Temperature	Relative humidity	Direction	Speed	Number of observations	Dynamic height	Temperature	Relative humidity	Direction	Speed
SURFACE	27	1,492	- 1.2	88	169	3.9	28	12	- 4.[illegible]	92	[illegible]	0.8
1,000	27	180					28	140			73	.6
950	27	594					28	554	- 1.0	63	191	.8
900	27	1,032					28	981	- 2.9	59	169	1.4
850	27	1,496			148	3.3	28	1,432	- 5.1	59	241	1.9
800	27	1,985	1.8	68	231	9.9	28	1.906	- 7.3	55	258	5.1
750	27	2,501	.0	57	247	16.3	28	2,408	- 9.3	54	278	8.2
700	27	3,055	- 2.6	48	251	20.4	28	2,938	-12.0	49	285	11.1
650	27	3,637	- 6.0	41	256	24.1	28	3,500	-15.1	44	292	15.3
600	27	4,261	-10.2	39	258	25.5	28	4,103	-18.6	42	294	18.1
550	27	4,923	-14.7		257	29.9	28	4,744	-22.3		295	19.0
500	27	5,642	-19.9		259	33.8	28	5,441	-26.8		294	20.6
450	27	6,409	-25.4		260	35.4	28	6,189	-32.3		295	22.2
400	27	7,260	-31.5		256	43.1	28	7,014	-38.4		298	26.0
350	27	8,192	-38.2		256	49.9	28	7,920	-44.7		294	29.7
300	27	9,237	-44.5		259	57.5	28	8,935	-51.6		294	29.9
250	27	10,442	-50.0		257	62.2	28	10,104	-52.0		295	32.6
200	27	11,890	-52.1		257	64.3	27	11,525	-54.1		296	32.8
175	27	12,753	-52.7		259	63.9	27	12,385	-51.9		291	30.1
150	27	13,744	-55.0		260	58.9	27	13,387	-50.6		298	25.8
125	27	14,898	-58.8		259	49.9	27	14,577	-50.0		296	25.6
100	27	16,285	-62.9		261	35.6	27	16,036	-49.9		299	23.7
80	27	17,653	-64.2		259	26.6	25	17,504	-48.0		297	19.6
70	27	18,482	-62.5		266	13.8	25	18,390	-47.2		301	19.2
60	26	19,424	-60.8		268	6.0	25	19,406	-47.2		304	18.5
50	26	20,564	-58.5		63	4.5	24	20,624	-46.5		296	15.7
40	26	21,972	-57.0		67	11.3	24	22,105	-46.5		303	14.6
30	26	23,801	-55.1		75	18.5	23	24,011	-46.3		325	18.1
25	24	24,968	-53.8		75	22.9	23	25,222	-46.3		332	15.3
20	18	26,421	-52.6		78	29.9	20	26,703	-46.0		338	14.4
15	11	28,302	-50.0				12	28,684	-44.0			
10												

	YAP, CAROLINE IS. (1008 MB.)					
					Wind	
Standard pressure surface mb	Number of observations	Dynamic height	Temperature	Relative humidity	Direction	Speed
SURFACE	28	17	26.5	87	58	8.9
1,000	28	90	26.0	86	61	10.7
950	28	526	22.8	85	78	16.5
900	28	1,011	19.8	81	83	18.8
850	28	1,503	17.3	72	85	18.1
800	28	2,019	15.0	67	86	14.4
750	28	2,556	12.3	59	87	12.6
700	28	3,141	9.3	53	93	13.6
650	28	3,743	5.9	52	95	15.2
600	28	4,404	2.4	44	97	16.5
550	28	5,095	- 1.8	43	96	18.8
500	28	5,855	- 5.9	37	93	18.8
450	28	6,669	-10.5		95	18.8
400	27	7,570	-16.0		95	20.6
350	26	8,563	-22.7		97	19.2
300	26	9,675	-31.0		105	18.7
250	26	10,940	-41.4		116	18.5
200	26	12,414	-53.9		123	23.1
175	26	13,258	-61.1		132	21.4
150	26	14,198	-69.1		136	24.7
125	26	15,262	-77.7		134	29.9
100	24	16,522	-83.2		125	30.7
80	19	17,766	-79.7		121	20.8
70	18	18,533	-75.5		120	11.9
60	18	19,432	-72.2		139	3.7
50	18	20,515	-68.1		244	2.3
40	17	21,871	-64.5		259	8.7
30	16	23,655	-59.8		261	3.1
25	16	24,802	-57.4		78	6.0
20	16	26,221	-55.0		88	13.2
15	14	28,067	-51.9		86	24.5
10	7	30,729	-46.2			

	YUCCA FLAT, NEV. (879 MB.)						YUMA, AIRZ. (998 MB.)					
Standard pressure surface mb	Number of observations	Dynamic height	Temperature	Relative humidity	Wind Direction	Wind Speed	Number of observations	Dynamic height	Temperature	Relative humidity	Wind Direction	Wind Speed
SURFACE	28	1,196	0.5	77	181	1.4	28	131	10.2	65	341	0.8
1,000	28	146					28	117			33	1.7
950	28	562					28	545	13.5	41	256	4.7
900	28	1,004					28	1,001	10.8	42	246	7.8
850	28	1,468	4.3	50	207	2.9	28	1,475	7.8	45	242	8.0
800	28	1,960	1.7	49	202	7.6	28	1,973	5.3	44	240	9.5
750	28	2,475	- 1.5	48	214	10.5	28	2,495	2.3	42	235	11.7
700	28	3,021	- 4.4	48	229	12.0	28	3,052	- 1.2	42	242	14.6
650	28	3,597	- 8.2	47	239	15.3	28	3,633	- 4.9	35	243	18.7
600	28	4,220	-12.2	45	250	19.2	28	4,263	- 9.0	38	244	23.7
550	28	4,873	-16.7	42	252	23.5	28	4,926	-13.8	39	245	29.1
500	28	5,589	-21.7	38	252	24.9	28	5,649	-18.7	37	244	34.8
450	28	6,349	-27.3	37	252	29.1	28	6,421	-23.9	37	245	37.3
400	28	7,195	-33.5		257	32.4	28	7,275	-30.1	37	245	39.4
350	28	8,119	-40.1		257	37.3	28	8,212	-37.2	42	248	50.9
300	28	9,156	-46.6		256	44.5	28	9,261	-43.8		249	58.7
250	28	10,353	-50.9		262	48.0	28	10,469	-49.8		249	64.3
200	28	11,798	-52.9		264	43.5	27	11,923	-52.3		253	62.8
175	27	12,667	-52.6		268	44.9	27	12,784	-53.5		251	63.0
150	27	13,660	-54.2		269	46.4	27	13,770	-56.0		247	59.7
125	27	14,822	-56.9		276	35.4	27	14,918	-60.2		248	52.5
100	27	16,223	-60.3		273	28.8	24	16,294	-64.4		249	45.9
80	26	17,619	-61.4		276	20.2	24	17,652	-65.6		248	37.1
70	25	18,446	-60.3		287	11.9	23	18,463	-64.3		254	25.6
60	24	19,403	-59.2		305	4.9	21	19,411	-62.4		251	11.5
50	24	20,553	-56.8		33	3.9	21	20,542	-60.3		215	1.4
40	23	21,971	-55.6		73	9.7	20	21,947	-58.2		63	11.9
30	21	23,802	-54.4		76	15.3	19	23,763	-56.7		60	17.5
25	20	24,965	-53.7		88	12.2	19	24,923	-55.2		64	22.7
20	15	26,373	-52.2				18	26,348	-53.4		66	28.0
15	6	28,275	-49.1				14	28,196	-51.6		68	23.5
10							7	30,877	-45.6			

Note: All observations scheduled at 1200, G C T Pressures shown under station names are the average monthly station pressures for the month of record, corrected to the height of the floors of the instrument shelters used for rawinsonde purposes. "Number of observations" refers to those of dynamic height only. Although the number of temperature observations at any given pressure surface is usually the same as for height, it is possible for temperature to be missing for one or more pressure surfaces of some observations. Relative humidity averages are limited to those observations with temperatures warmer than -40°C Observations of wind speed and direction are sometimes lost due to limiting angles, i. e., elevation angles less than 6° above the horizon, or any obstruction above the horizon.

The temperature and wind values are based on 15 or more observations at the surface or 5 observations at a standard pressure level for temperature and 10 for wind. Relative humidity data are not published for standard pressure surfaces for which less than 16 observations are available.

Relative humidity data are computed and expressed on the basis of vapor pressure over water. Unless otherwise indicated, they are obtained from lithium chloride hygristors.

These average values for standard pressure surfaces were obtained by rawinsondes; dynamic height (geopotential) in units of . 98 dynamic meter, temperature in degrees Celsius, relative humidity in percent, and resultant winds in degrees and knots.

SOLAR RADIATION DATA

Solar radiation intensities, tabulated in langleys per minute on a surface normal to the direction of the sun.

FEBRUARY 1962

ALBUQUERQUE, N. MEX.

Date	Sun's zenith distance A M 78.7°	75.7°	70.7°	60.0°	*	P M 60.0°	70.7°	75.7°	78.7°
Air mass	4.19	3.35	2.51	1.67	*	1.67	2.51	3.35	4.19
Feb.									
1	1.11	1.20	1.29	1.41	1.39	1.37	1.23	1.10	0.99
2	1.08	1.19	1.27	1.35	1.47	1.36	1.24	1.13	1.03
3	1.07	1.17	1.27	1.41	1.48	1.38	1.27	1.17	1.07
4	1.07	1.17	1.27	1.40	1.43	1.39	1.26	1.19	----
5	1.12	1.15	1.29	1.40	1.49	1.41	1.27	1.15	1.06
6	1.11	1.17	1.28	1.41	1.48	----	----	----	----
7	1.08	1.20	1.29	----	1.46	----	----	.92	----
8	----	----	----	----	1.46	----	----	----	----
9	----	1.11	1.23	1.35	1.36	1.33	1.22	1.09	1.01
10	1.04	1.13	1.23	1.35	1.41	1.36	1.18	1.07	.97
11	(.87)	(1.02)	1.17	----	----	1.38	1.28	1.19	1.11
12	.95	1.05	----	----	----	----	----	----	----
15	†	†	†	†	(1.43)	(1.34)	----	----	(.97)
16	.97	1.07	1.19	†	†	†	†	†	†
19	†	†	†	†	†	†	†	(1.22)	(.99)
20	1.06	1.16	1.24	1.38	----	----	----	----	----
21	----	----	----	----	----	1.42	1.25	1.12	----
22	1.06	1.17	1.25	1.38	1.47	----	----	1.10	.97
23	1.08	1.18	1.28	1.38	1.48	(1.38)	(1.27)	(1.15)	(1.08)
24	----	----	----	----	----	(1.30)	----	----	----
25	----	----	1.27	1.39	----	(1.07)	(1.01)	(.85)	(.75)
26	----	----	----	----	----	----	(.75)	----	----
28	†	†	†	†	†	1.41	1.26	1.15	1.05
Averages	1.06	1.15	1.25	1.38	1.45	1.38	1.25	1.12	1.03

BLUE HILL OBS., MASS.

Date	Sun's zenith distance A M 78.7°	75.7°	70.7°	60.0°	*	P M 60.0°	70.7°	75.7°	78.7°
Air mass	4.89	3.92	2.94	1.96	*	1.96	2.94	3.92	4.89
Feb.									
1	0.82	0.93	1.06	----	----	----	----	----	----
4	.66	.76	.90	1.20	1.25	1.21	1.03	0.87	0.76
6	1.04	1.16	1.28	1.42	1.45	1.42	1.25	1.12	1.01
7	1.00	1.10	1.22	1.36	1.40	1.35	1.17	1.03	.89
11	1.12	1.21	1.32	1.42	1.47	1.42	1.25	1.11	.99
12	1.13	1.22	1.33	1.46	1.50	1.45	1.23	1.10	.99
13	1.06	1.17	1.27	----	----	1.37	1.24	1.10	1.01
18	.94	1.04	1.17	1.33	1.41	1.34	1.16	1.01	----
20	----	----	----	----	----	1.00	.79	.66	.57
25	----	----	----	----	1.35	1.22	1.04	.93	.81
Averages	0.97	1.07	1.19	1.37	1.40	1.31	1.13	0.99	0.88

OMAHA, NEBR.

Date	Sun's zenith distance A M 78.7°	75.7°	70.7°	60.0°	*	P M 60.0°	70.7°	75.7°	78.7°
Air mass	4.78	3.82	2.87	1.91	*	1.91	2.87	3.82	4.78
Feb.									
3	S 0.73	S 0.88	S 1.04	S 1.21	S 1.23	S 1.19	S 1.03	S 0.90	S 0.72
4	S .79	S .91	S 1.05	S 1.17	S 1.21	S 1.21	----	----	----
6	----	----	----	S 1.25	S 1.25	S 1.23	----	----	----
11	I .54	I .70	I .85	I 1.08	I 1.14	I 1.10	I .67	I .50	I .32
26-28	Instrument inoperative								
Averages	0.69	0.83	0.98	1.18	1.21	1.18	0.85	0.70	0.52

† Missing
( ) Clouds present
S Slight haze - indeterminable
I Intense haze - indeterminable
* Values corresponding to true solar noon

MADISON, WIS.

Date	Sun's zenith distance A M 78.7°	75.7°	70.7°	60.0°	*	P M 60.0°	70.7°	75.7°	78.7°
Air mass	4.69	3.75	2.81	1.88	*	1.88	2.81	3.75	4.69
Feb.									
6	----	----	----	S 1.40	S 1.41	S 1.38	S 1.25	S 1.10	S 0.94
28	----	----	----	----	1.51	1.41	1.25	1.13	1.03
Averages	----	----	----	1.40	1.46	1.40	1.25	1.12	0.99

TUCSON, ARIZ.

Date	Sun's zenith distance A M 78.7°	75.7°	70.7°	60.0°	*	P M 60.0°	70.7°	75.7°	78.7°
Air mass	4.56	3.65	2.74	1.83	*	1.83	2.74	3.65	4.56
Feb.									
1-3	Instrument inoperative								
4	0.88	0.99	1.13	1.30	----	----	----	----	----
9	----	1.08	1.20	1.34	----	1.30	----	1.04	0.92
10	1.02	1.13	1.23	1.37	----	1.32	1.22	1.10	.99
15	.94	1.06	1.15	----	----	----	----	----	----
16	.96	1.06	1.20	----	----	----	----	1.03	.91
17	----	.91	----	----	----	----	----	----	----
23	.99	1.10	1.20	----	----	----	----	----	----
28	1.03	1.14	1.26	1.41	----	----	----	1.23	1.12
Averages	0.97	1.06	1.20	1.36	----	1.31	1.22	1.10	0.99

MAUNA LOA OBS., HAWAII

Date	Sun's zenith distance A M 78.7°	75.7°	70.7°	60.0°	*	P M 60.0°	70.7°	75.7°	78.7°
Air mass	3.36	2.69	2.01	1.34	*	1.34	2.01	2.69	3.36
Feb.									
2	1.24	1.32	----	----	----	----	----	----	----
3	1.24	1.32	1.41	1.52	1.62	----	1.41	1.33	1.24
4	1.24	1.31	1.41	1.52	1.63	----	----	----	----
5	1.25	1.32	1.42	1.52	1.61	----	----	----	----
6	1.24	1.32	1.41	1.52	1.63	----	----	1.29	1.21
7	1.22	1.31	1.42	1.53	1.63	----	----	----	----
8	1.23	1.31	1.40	1.52	1.62	----	1.38	1.30	1.21
9	1.29	1.36	1.46	1.56	1.65	1.52	1.42	1.33	1.26
10	1.26	1.32	1.43	1.54	1.64	----	----	----	----
11	1.25	1.35	1.42	1.53	1.63	1.46	1.34	1.26	1.17
12	1.28	1.37	1.44	1.54	----	----	----	----	----
13	1.30	1.37	1.46	1.56	1.62	----	----	----	----
14	1.28	1.35	1.44	1.53	1.61	----	----	----	----
15	1.30	1.36	1.46	1.55	----	----	----	----	----
16	----	----	----	1.53	----	----	----	----	----
18	1.27	1.36	----	1.57	1.68	1.56	1.44	1.33	1.25
19	1.28	1.37	1.46	1.56	1.67	----	----	1.33	1.24
21	1.24	1.33	1.42	1.52	1.66	1.52	1.40	1.30	1.22
22	1.25	1.33	1.43	1.54	1.65	1.53	1.41	1.32	1.23
23	----	----	----	----	----	1.51	1.40	1.30	1.21
24	1.26	1.33	1.43	1.54	----	----	----	----	----
25	1.22	1.30	1.40	1.52	----	----	----	----	----
26-28	Instrument inoperative								
Averages	1.26	1.34	1.43	1.54	1.63	1.52	1.40	1.31	1.22

GUAM, M. I.

Date	Sun's zenith distance A M 78.7°	75.7°	70.7°	60.0°	*	P M 60.0°	70.7°	75.7°	78.7°
Air mass	4.92	3.93	2.95	1.97	*	1.97	2.95	3.93	4.92
	Recorder inoperative								

Langley is the unit used to denote one gram calorie per square centimeter. An explanation of the formula used in computing the air mass values for each station listed above appears in the February 1957 issue, Vol. 8, No. 2, page 63, of this publication.

SOLAR RADIATION DATA

Daily totals and weekly averages of solar radiation (direct and diffuse) received on a horizontal surface, tabulated in langleys.

	Albuquerque, N.Mex.	Ames, Iowa	Annette, Alaska	Apalachicola, Fla.	Astoria, Oreg.	Barrow, Alaska	Bethel, Alaska	Bismarck, N. Dak.	Blue Hill, Mass.	Boise, Idaho	Boston, Mass.	Brownsville, Tex.	Canton Island Pacific Area	Caribou, Maine	Charleston, S.C.	Cleveland, Ohio	Columbia, Mo.	Corvallis, Oreg.	Davis, Calif.	E. Lansing, Mich.	El Paso, Tex.	Ely, Nev.	Fairbanks, Alaska	Flaming Gorge, Utah	Fort Worth, Tex.	Fresno, Calif.	Gainesville, Fla.	Glasgow, Mont.	Grand Junction, Colo.	Great Falls, Mont.	Greensboro, N.C.	Griffin, Ga.	[illegible]	[illegible]	Indianapolis, Ind.	Inyokern, (China Lake) Calif.	[illegible]	[illegible]
1962																																						
Feb. 5	429	---	34	389	---	4	57	236	171	115	166	408	697	57	292	26	379	54	92	133	420	361	27	371	451	79	214	219	569	[illegible]	[illegible]	[illegible]	343	[illegible]	304	110	[illegible]	[illegible]
Feb. 6	429	311	18	460	---	8	65	315	315	83	313	187	699	113	329	164	407	54	133	237	458	155	36	[illegible]	446	[illegible]	246	270	[illegible]	[illegible]	[illegible]	198	256	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Feb. 7	414	280	22	438	---	--	59	281	316	91	311	---	681	268	413	241	293	98	236	286	472	[illegible]	14	321	[illegible]	[illegible]	549	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	184	[illegible]	[illegible]
Feb. 8	309	208	60	433	---	9	67	135	178	195	217	--	(697)	298	262	171	252	121	210	237	427	134	17	311	412	[illegible]	401	259	200	208	135	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Feb. 9	450	146	17	168	48	--	113	84	193	115	163	441	(554)	115	264	52	94	40	51	216	475	126	16	248	[illegible]	18	193	[illegible]	157	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Feb. 10	464	86	45	478	71	-	62	58	187	-	131	118	606	290	321	268	56	119	80	328	171	68	96	[illegible]	411	11	94	151	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Feb. 11	[illegible]	293	196	173	226	14	109	93	345	55	360	492	657	--	436	58	366	75	248	65	366	128	38	[illegible]	[illegible]	57	50	53	[illegible]	[illegible]	106	176	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Average	414	221	65	[illegible]	---	9	76	172	243	109	237	395	(656)	190	354	140	264	80	150	215	441	147	37	312	409	69	[illegible]	187	[illegible]	[illegible]	303	[illegible]	[illegible]	[illegible]	[illegible]	214	[illegible]	298
Feb. 12	[illegible]	62	189	469	57	33	61	75	353	---	343	491	(565)	354	402	201	351	74	67	277	441	150	150	208	419	297	466	65	[illegible]	[illegible]	192	[illegible]	117	[illegible]	351	403	440	172
Feb. 13	135	50	79	447	55	---	54	90	341	51	294	498	662	(312)	269	105	336	63	58	97	509	298	86	351	449	6	449	152	362	216	164	[illegible]	336	[illegible]	[illegible]	173	377	301
Feb. 14	312	126	170	475	217	63	106	---	36	304	48	218	669	(262)	400	129	290	232	57	145	176	357	30	172	191	[illegible]	471	166	[illegible]	[illegible]	380	[illegible]	328	490	77	178	365	176
Feb. 15	--	81	201	236	214	80	80	95	251	91	283	414	691	310	346	167	42	214	243	226	(491)	172	24	297	[illegible]	212	412	291	205	12	336	[illegible]	[illegible]	[illegible]	[illegible]	460	[illegible]	[illegible]
Feb. 16	349	191	222	458	76	98	94	247	278	252	284	495	(641)	-	127	96	---	131	282	68	494	145	62	242	475	211	[illegible]	220	99	120	85	17	161	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Feb. 17	301	80	218	278	59	43	121	206	337	136	341	417	580	149	469	222	165	75	314	148	501	---	84	265	110	374	490	160	[illegible]	209	136	188	[illegible]	[illegible]	[illegible]	418	289	296
Feb. 18	431	48	178	318	312	59	70	249	369	214	368	346	(635)	340	225	153	205	215	130	103	530	267	98	242	480	120	577	267	[illegible]	130	264	72	117	487	41	446	291	281
Average	307	91	179	383	140	63	84	161	284	180	280	412	(635)	(284)	320	153	231	148	169	181	(420)	230	77	254	370	204	[illegible]	185	206	163	[illegible]	[illegible]	317	[illegible]	168	[illegible]	328	253
Feb. 19	465	355	197	168	297	35	155	354	37	162	40	166	682	--	110	41	248	133	340	71	438	193	19	312	493	[illegible]	315	213	278	12	129	[illegible]	157	[illegible]	[illegible]	132	193	343
Feb. 20	449	195	200	501	346	28	153	222	343	304	361	312	659	244	500	169	139	242	560	272	385	276	---	184	[illegible]	[illegible]	519	190	206	342	464	[illegible]	384	[illegible]	526	502	[illegible]	155
Feb. 21	-	164	157	243	321	44	252	286	227	370	220	441	(680)	344	144		67	237	420	113	497	357	60	217	[illegible]	543	595	358	[illegible]	[illegible]	[illegible]	[illegible]	140	[illegible]	56	[illegible]	120	[illegible]
Feb. 22	485	407	262	272	151	84	138	202	66	319	53	329	688	205	291	-	451	114	425	179	224	477	64	347	[illegible]	296	558	191	176	123	95	104	168	420	185	558	176	371
Feb. 23	516	273	266	265	223	36	105	377	221	269	222	432	671	230	378	---	15	202	416	224	559	332	60	267	(453)	[illegible]	429	362	239	261	203	[illegible]	185	506	11	560	209	339
Feb. 24	416	219	246	164	368	44	109	417	26	239	30	309	687	185	286	215	162	389	409	409	495	276	82	294	276	[illegible]	342	358	284	331	466	[illegible]	337	459	369	635	468	399
Feb. 25	409	100	232	217	354	45	152	335	329	254	401	324	693	388	109	305	284	413	292	264	494	343	69	370	118	[illegible]	[illegible]	273	[illegible]	315	127	188	354	[illegible]	391	561	256	381
Average	456	245	223	261	294	45	146	313	178	274	190	359	(680)	266	260	183	199	247	380	219	441	319	59	285	[illegible]	253	[illegible]	292	286	[illegible]	221	[illegible]	242	[illegible]	200	480	269	306
Feb. 26	346	437	154	478	403	54	227	130	49	430	48	269	652	---	269	83	207	425	481	126	548	--	66	524	199	352	[illegible]	381	251	(367)	154	208	[illegible]	464	106	570	[illegible]	341
Feb. 27	206	311	215	467	225	46	144	371	54	---	53	408	689	111	422	60	108	358	172	329	571	534	134	460	162	409	339	389	188	325	217	104	406	147	51	606	162	475
Feb. 28	540	488	285	272	219	62	104	450	51	190	18	95	689	275	429	54	524	172	190	323	583	367	179	504	529	412	399	407	504	348	244	292	446	214	207	599	50	452
Mar. 1	516	500	307	371	227	53	123	380	442	120	452	222	(694)	214	44	336	528	246	144	466	547	489	211	515	560	423	401	[illegible]	[illegible]	[illegible]	374	237	[illegible]	---	367	579	31	441
Mar. 2	554	453	285	92	265	---	171	358	450	269	463	494	682	420	---	352	489	284	403	455	595	394	81	470	547	191	55	[illegible]	[illegible]	342	415	105	127	381	568	596	415	412
Mar. 3	558	166	319	174	104	156	146	268	455	116	468	229	682	195	304	364	427	100	409	431	422	355	190	318	410	444	120	333	[illegible]	381	332	122	365	353	186	598	130	377
Mar. 4	563	227	306	348	80	89	101	380	215	289	238	390	669	167	246	358	433	122	293	382	596	497	201	503	364	377	232	[illegible]	[illegible]	[illegible]	[illegible]	199	412	344	126	523	234	457
Average	469	369	267	315	218	77	145	377	245	236	253	301	(680)	231	285	234	388	243	342	359	551	439	151	412	425	373	286	[illegible]	[illegible]	[illegible]	278	124	309	317	202	551	[illegible]	[illegible]

Note.--Langley is the unit used to denote one gram calorie per square centimeter.
Values in parentheses are interpolated.

SOLAR RADIATION DATA

Daily totals and weekly averages of solar radiation (direct and diffuse) received on a horizontal surface, tabulated in langleys.

FEBRUARY 1962

1962	Laramie, Wyo.	Las Vegas, Nev.	Lemont, Ill.	Little Rock, Ark.	Los Angeles, Calif.	Los Angeles, Calif. (Urban)	Madison, Wis.	Manhattan, Kans.	Matanuska, Alaska	Mauna Loa Obs., Hawaii	Medford, Oreg.	Miami, Fla.	Midland, Tex.	Nashville, Tenn.	Newport, R. I.	North Omaha, Nebr.	Oak Ridge, Tenn.	Oklahoma City, Okla.	Page, Ariz.	Phoenix, Ariz.	Pullman, Wash.	Rapid City, S. Dak.	Riverside, Calif.	St. Cloud, Minn.	Salt Lake City, Utah	San Antonio, Tex.	Santa Maria, Calif.	S. Ste. Marie, Mich.	Sayville, N. Y.	Seattle, Wash.	Seattle-Tacoma, Wash.	Shreveport, La.	Spokane, Wash.	State College, Pa.	Stillwater, Okla.	Tampa, Fla.	Tucson, Ariz.	Washington, D. C. (Obs & Test Dev Ctr)
Feb. 5	286	393	264	362	206	223	336	334	20	506	192	354	424	96	224	317	113	380	375	418	194	313	321	298	251	378	339	246	191	217	213	89	246	51	333	378	351	272
Feb. 6	256	304	325	399	144	212	353	331	61	---	138	394	434	341	328	354	374	401	255	379	121	331	271	314	140	314	236	280	281	43	61	399	---	259	354	327	469	350
Feb. 7	310	126	160	301	63	74	232	165	45	520	162	422	304	316	323	285	338	323	176	241	142	203	109	309	226	166	53	295	257	123	116	191	---	333	223	292	389	378
Feb. 8	318	182	140	118	30	34	208	77	32	(585)	188	324	301	105	152	106	39	228	133	182	136	245	99	139	155	355	39	252	105	109	119	208	---	249	171	434	242	224
Feb. 9	247	173	198	337	67	47	195	82	41	597	162	458	413	45	223	81	111	380	250	422	68	285	59	307	149	417	51	306	120	88	76	329	80	71	128	333	475	35
Feb. 10	333	98	298	396	18	17	280	209	52	594	201	327	425	284	121	61	376	326	378	436	120	294	66	97	109	410	46	294	216	52	63	386	142	390	229	478	474	411
Feb. 11	312	180	127	384	107	13	124	357	80	596	93	482	436	329	351	333	255	397	327	40	139	247	357	80	167	385	82	152	276	254	151	380	141	334	365	509	214	381
Average	295	208	216	328	91	88	247	222	47	(566)	162	394	391	217	246	220	229	348	271	303	131	274	183	221	171	347	121	261	207	127	114	283	152	241	258	393	373	293
Feb. 12	308	297	249	363	376	249	157	315	129	527	90	503	428	334	344	60	341	365	134	71	130	226	273	97	50	412	(409)	189	294	224	232	372	82	241	356	499	210	93
Feb. 13	348	359	74	381	345	319	60	282	124	503	161	466	403	357	351	84	309	385	384	369	154	277	401	49	328	406	168	141	320	135	117	390	153	312	352	439	169	332
Feb. 14	241	386	82	350	297	130	136	197	139	510	136	451	187	313	57	210	347	268	227	323	137	200	196	256	219	234	374	213	27	90	102	183	154	126	160	138	476	328
Feb. 15	276	378	124	26	71	57	---	139	89	427	145	(500)	---	252	205	160	289	139	343	444	102	329	96	95	218	440	352	240	159	131	144	156	96	354	116	458	504	381
Feb. 16	126	460	124	445	446	343	---	165	82	455	188	(343)	397	216	270	134	141	416	206	407	248	132	298	250	84	447	354	170	202	178	187	344	66	58	364	284	510	81
Feb. 17	185	461	140	424	449	431	---	58	51	507	184	492	421	396	346	18	380	170	369	475	111	262	467	226	169	254	456	307	290	165	163	219	88	349	215		523	329
Feb. 18	297	440	34	228	367	237	---	49	110	643	117	502	463	136	375	38	182	451	387	484	200	300	338	187	276	457	315	247	312	224	250	170	97	310	404	352	413	258
Average	254	397	118	317	336	252	---	172	103	510	146	(465)	383	286	278	101	284	313	293	368	155	247	296	166	192	379	(347)	215	229	164	171	262	105	250	281	412	401	258
Feb. 19	383	138	163	465	226	149	---	414	21	637	303	531	413	439	53	396	394	414	---	462	309	238	127	329	295	456	333	198	27	137	145	436	203	67	404	370	360	87
Feb. 20	198	371	351	238	262	178	---	38	9	600	242	437	331	376	326	79	387	115	---	290	205	159	226	336	120	61	182	286	233	320	325	163	319	284	64	406	273	[illegible]
Feb. 21	187	463	50	177	345	353	---	340	149	637	277	401	319	34	211	287	28	394	450	366	271	356	279	216	260	207	451	221	138	254	289	102	223	113	316	409	487	62
Feb. 22	370	488	353	385	445	428	382	436	153	646	314	548	361	322	91	381	224	240	459	---	197	298	455	356	433	247	490	178	87	170	115	166	181	297	304	428	339	132
Feb. 23	287	462	112	114	(301)	262	211	46	99	602	256	514	489	46	183	269	63	413	465	448	346	310	276	230	387	474	250	345	124	67	188	216	273	147	252	424	---	64
Feb. 24	291	441	228	98	316	301	323	169	195	559	217	404	394	65	45	219	380	201	327	319	423	278	199	247	190	461	300	306	45	316	322	463	370	199	144	374	476	386
Feb. 25	266	522	202	43	(514)	426	120	62	55	463	359	465	476	62	312	188	61	64	298	496	393	298	367	260	262	258	264	157	317	320	353	241	353	351	41	372	234	359
Average	283	412	208	217	(344)	299	259	215	97	592	281	472	398	192	175	260	220	263	400	397	306	277	276	282	278	309	324	242	139	226	248	255	275	208	218	398	361	182
Feb. 26	332	392	205	38	(454)	324	358	479	196	495	426	403	491	57	60	475	20	188	265	386	416	373	327	388	249	89	392	130	34	361	359	214	363	77	146	474	459	70
Feb. 27	453	548	155	35	507	488	248	452	218	---	316	476	389	128	76	424	82	352	487	423	372	446	554	350	454	176	541	377	56	191	211	54	---	84	244	513	215	44
Feb. 28	442	545	424	207	470	466	486	516	221	413	144	548	510	21	81	502	88	535	501	495	248	370	519	457	258	479	508	332	49	71	96	78	217	100	484	529	584	176
Mar 1	454	536	401	445	461	446	486	498	213	489	99	526	507	300	447	478	235	495	493	---	211	443	494	435	483	167	477	418	424	137	256	274	207	489	428	503	569	495
Mar. 2	447	529	410	527	422	306	484	465	161	672	157	455	498	234	453	454	282	503	427	---	241	369	306	381	399	495	303	407	450	282	332	487	301	500	470	448	573	488
Mar. 3	396	543	346	451	526	503	416	174	241	532	121	278	326	270	462	110	277	485	511	522	218	267	476	222	205	419	546	406	418	54	79	399	226	497	441	381	515	505
Mar. 4	413	511	81	496	(464)	505	157	478	224	363	183	346	522	57	318	262	93	533	505	535	247	481	535	283	523	519	535	408	341	66	82	332	188	500	478	[illegible]	571	506
Average	420	515	289	314	(472)	434	377	437	211	494	207	433	463	152	271	386	154	441	456	472	279	393	459	359	367	335	472	354	253	166	202	262	250	321	384	451	498	326

Note.--Langley is the unit used to denote one gram calorie per square centimeter.
Values in parentheses are interpolated.

TOTAL OZONE DATA

The total amount of ozone is expressed in 10^{-3} cm at STP. These data are provisional values applicable to local noon, and are obtained from measurements [illegible] spectrophotometer using the [illegible] zenith sky as a light source (see explanation below).

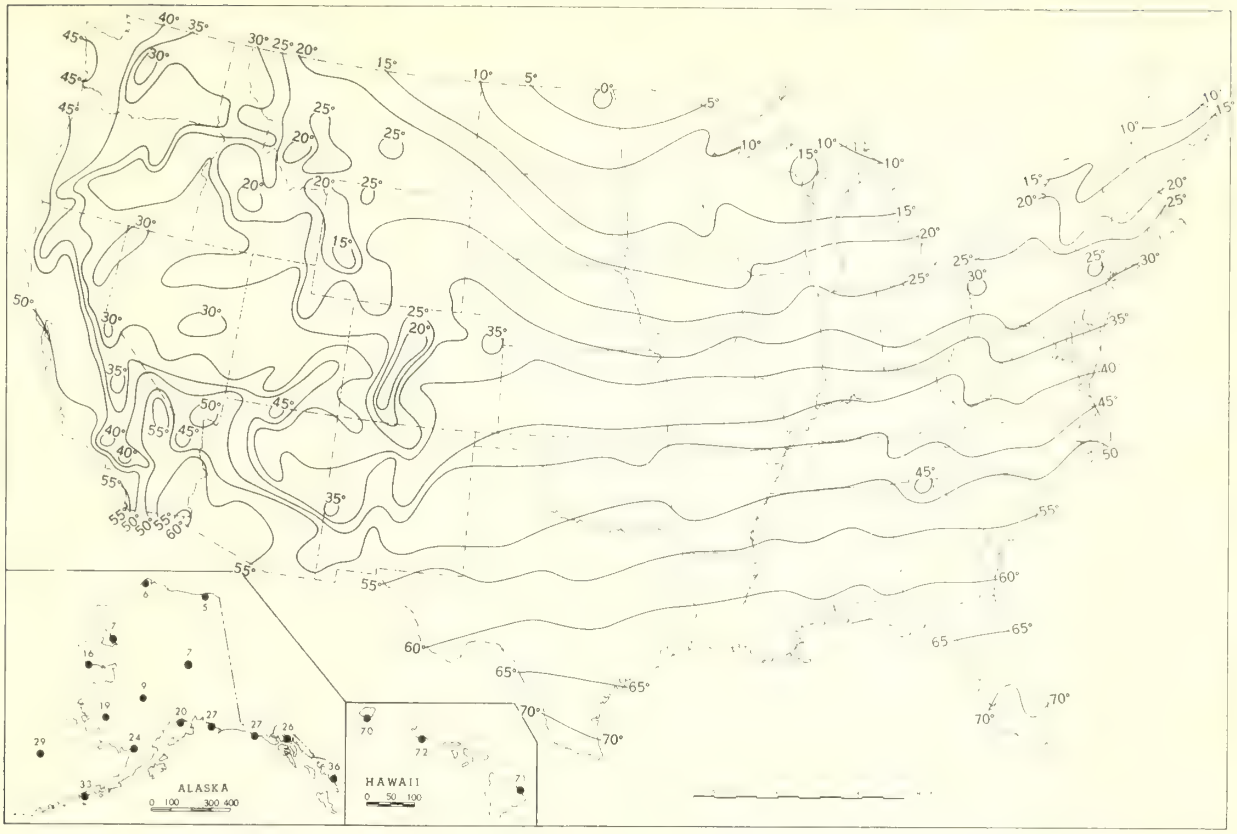
FEBRUARY 1962

Station	Day of month																														
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31
Bismarck, N. Dak.	---	323	389	---	---	409	384	---	---	---	---	---	---	---	---	---	---	---	393	---	---	---	---	465	417	460	---	460			
Caribou, Maine	472	395	---	---	---	---	485	443	---	429	412	381	404	384	410	366	---	416	---	---	395	---	---	---	397	396	---	344			
Green Bay, Wis.	369	---	---	---	---	469	401	380	374	---	---	---	---	343	---	---	400	---	---	373	---	399	---	405	---	---	330	347			
Hallett Station	*225	*220	*219	000	*239	*244	*212	205	000	*214	*208	*218	*200	*227	*223	229	*228	*248	263	259	265	†258	237	*213	*214	*212	000	*271			
Mauna Loa, Hawaii	---	---	267	268	262	273	267	262	266	257	255	249	241	---	---	---	---	287	273	---	284	274	280	287	---	---	---	---			
Midland, Texas	226	254	251	237	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---			
Nashville, Tenn.	---	360	328	328	---	372	361	---	---	---	294	287	304	388	---	---	325	---	306	334	---	---	---	---	---	---	---	---			
Sterling, Va.	*332	*378	---	352	354	389	411	*365	---	---	---	---	---	334	330	---	*346	350	*380	351	---	*340	*338	311	---	---	---	*271			

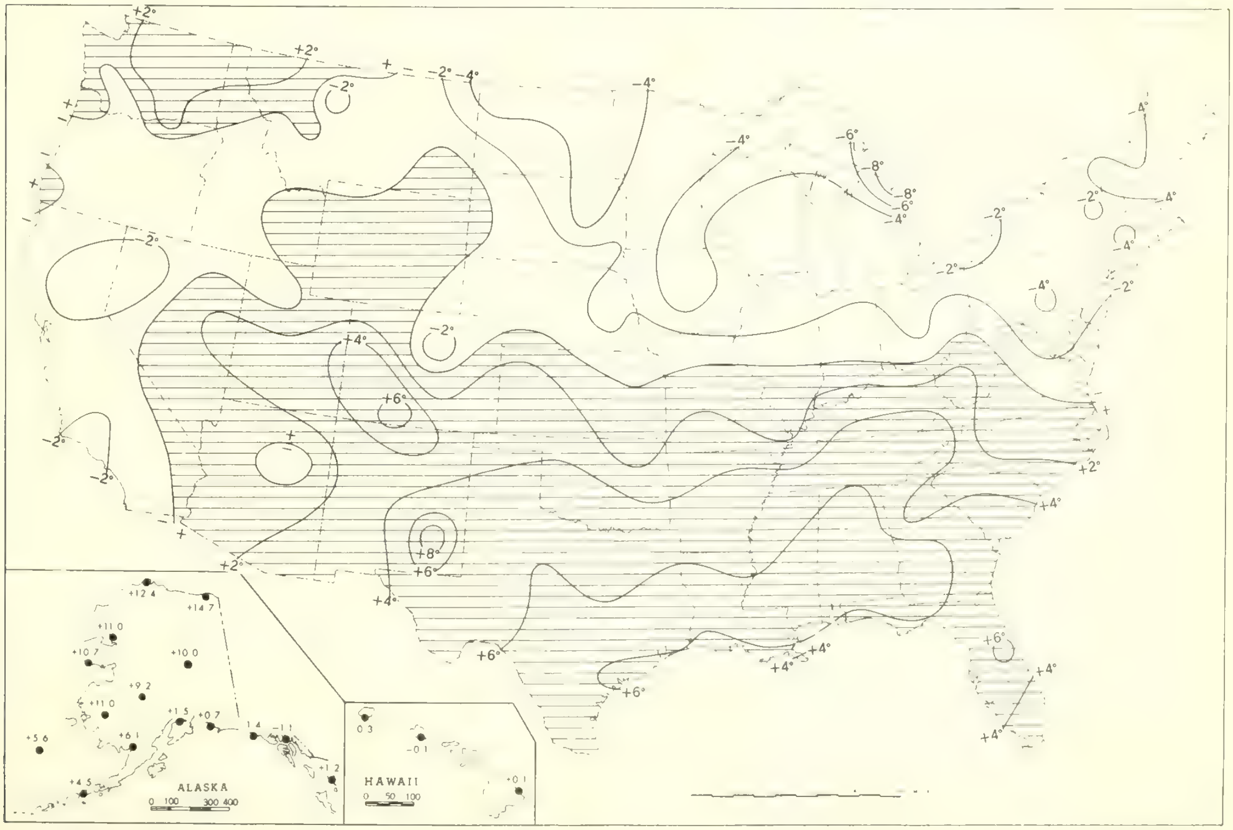
The spectrophotometer measures the total amount of ozone in the atmosphere, i.e. the amount contained in a vertical column of air extending from the ground to the top of the atmosphere in the vicinity of the station. The amount of ozone in this column is expressed in terms of thickness of a layer it would occupy at standard temperature and pressure.

The standard method of measurement is that on direct sun using A(3055Å and 3254Å) and D(3176Å and 3398Å) wavelength pairs. Observations made on the clear zenith sky are slightly less accurate, and are marked with a dagger (†). Observations made on zenith cloud are least reliable, and are marked with an asterisk (*). A detailed description of the spectrophotometer and observational procedures may be found in the "Observers' Handbook For the Ozone Spectrophotometer", Annals of the International Geophysical Year, Volume V, Pergaman Press, 1957

Chart I. A. Average Temperature (°F.) at Surface, February 1962.



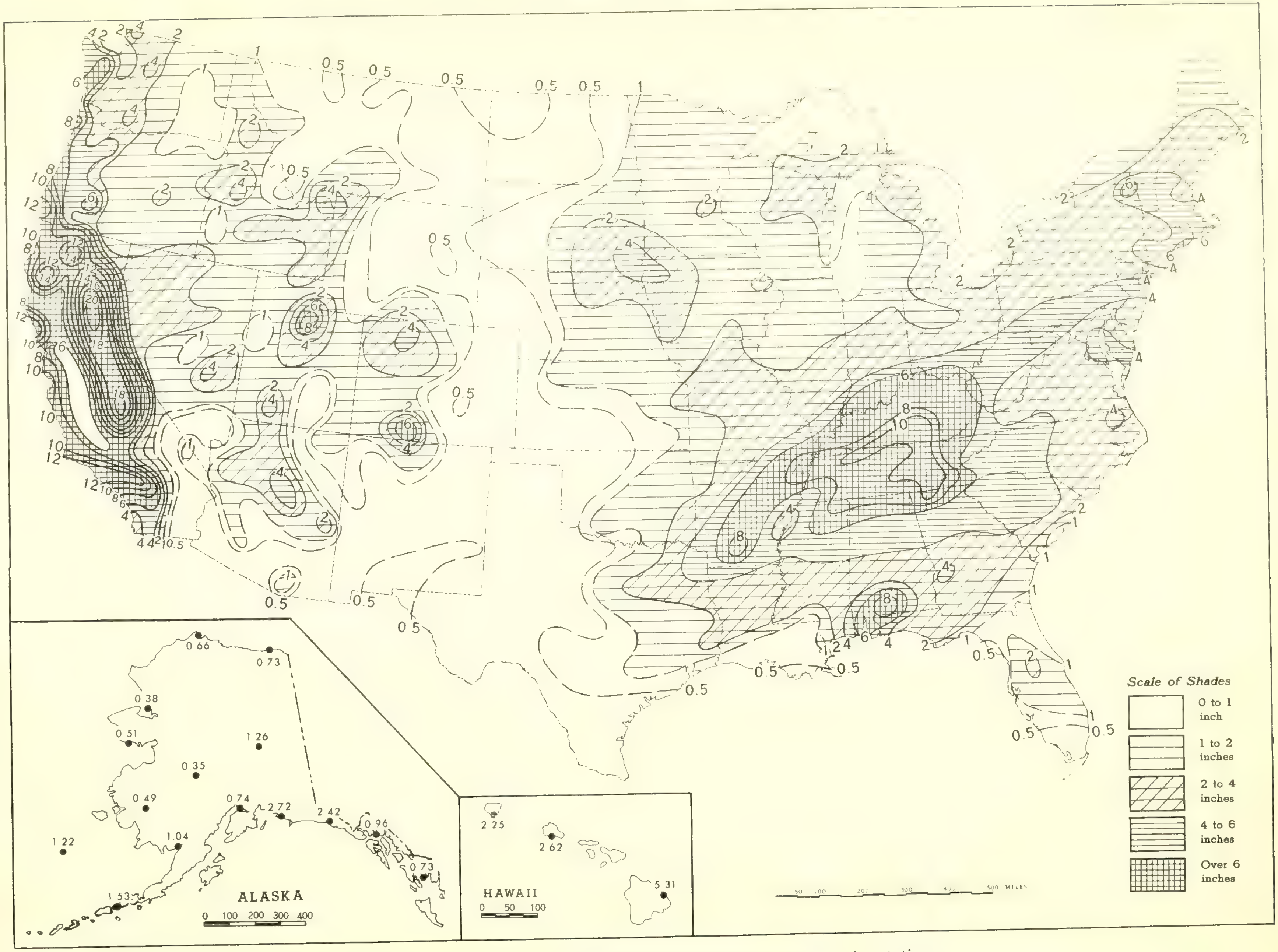
B. Departure of Average Temperature from Normal (°F.), February 1962.



A. Based on reports from over 870 Weather Bureau and cooperative stations. The monthly average is half the sum of the monthly average maximum and monthly average minimum, which are the average of the daily maxima and daily minima, respectively.

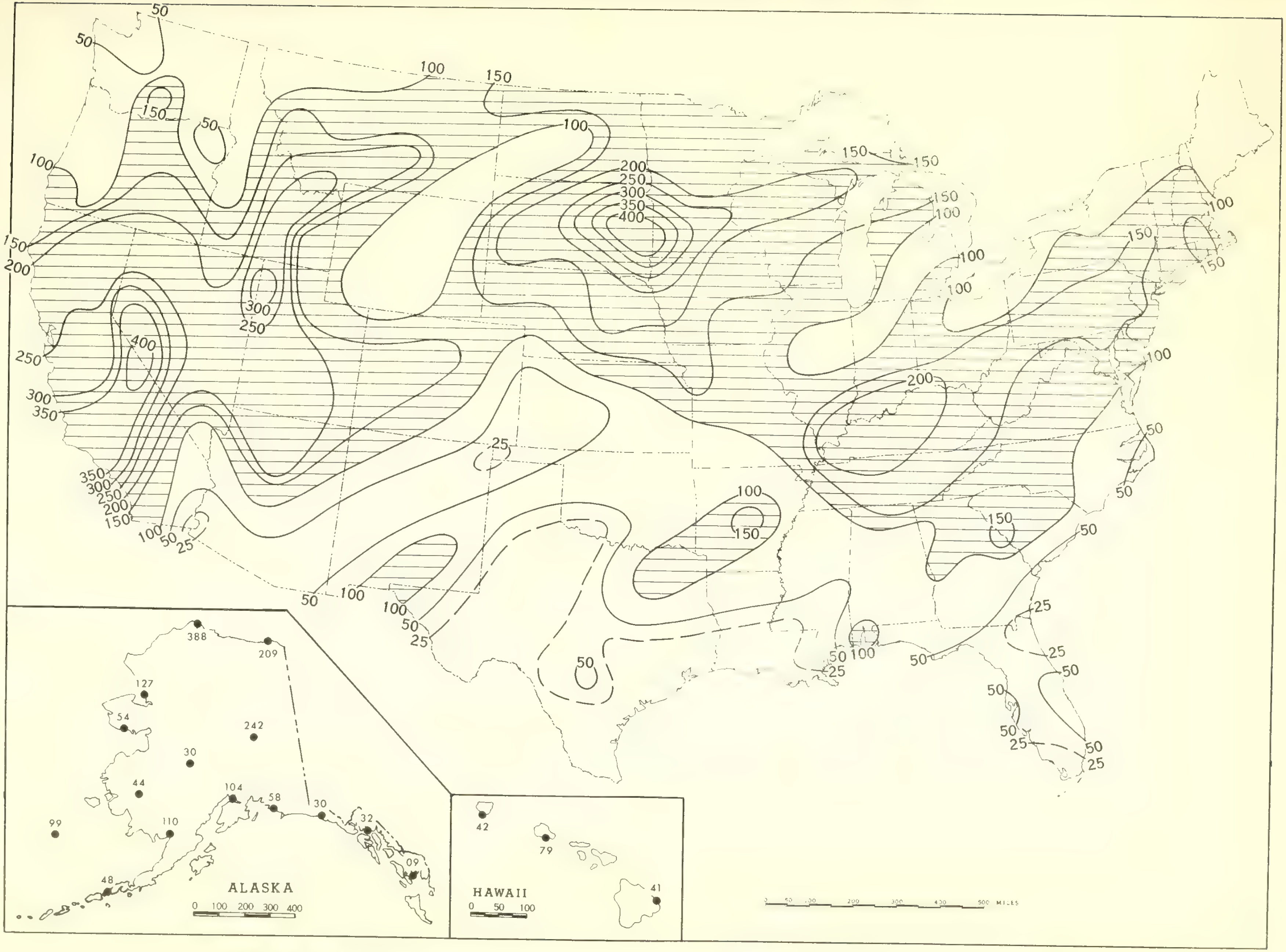
B. Departures from normal are based on the 30-yr. normals (1931-60) for first-order Weather Bureau stations.

Chart II. Total Precipitation (Inches), February 1962.



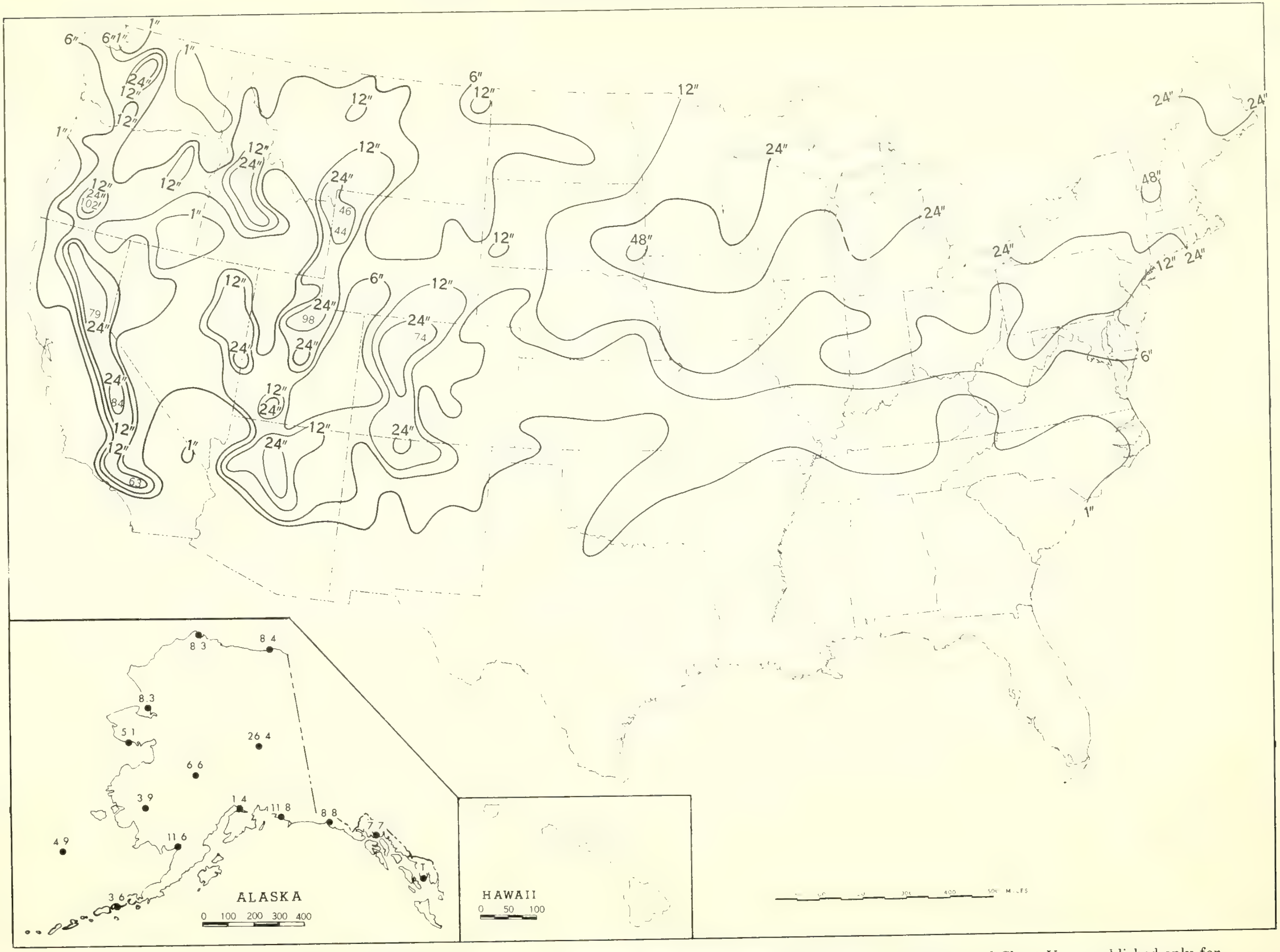
Based on daily precipitation records at about 870 Weather Bureau and cooperative stations.

Chart III. Percentage of Normal Precipitation, February 1962.



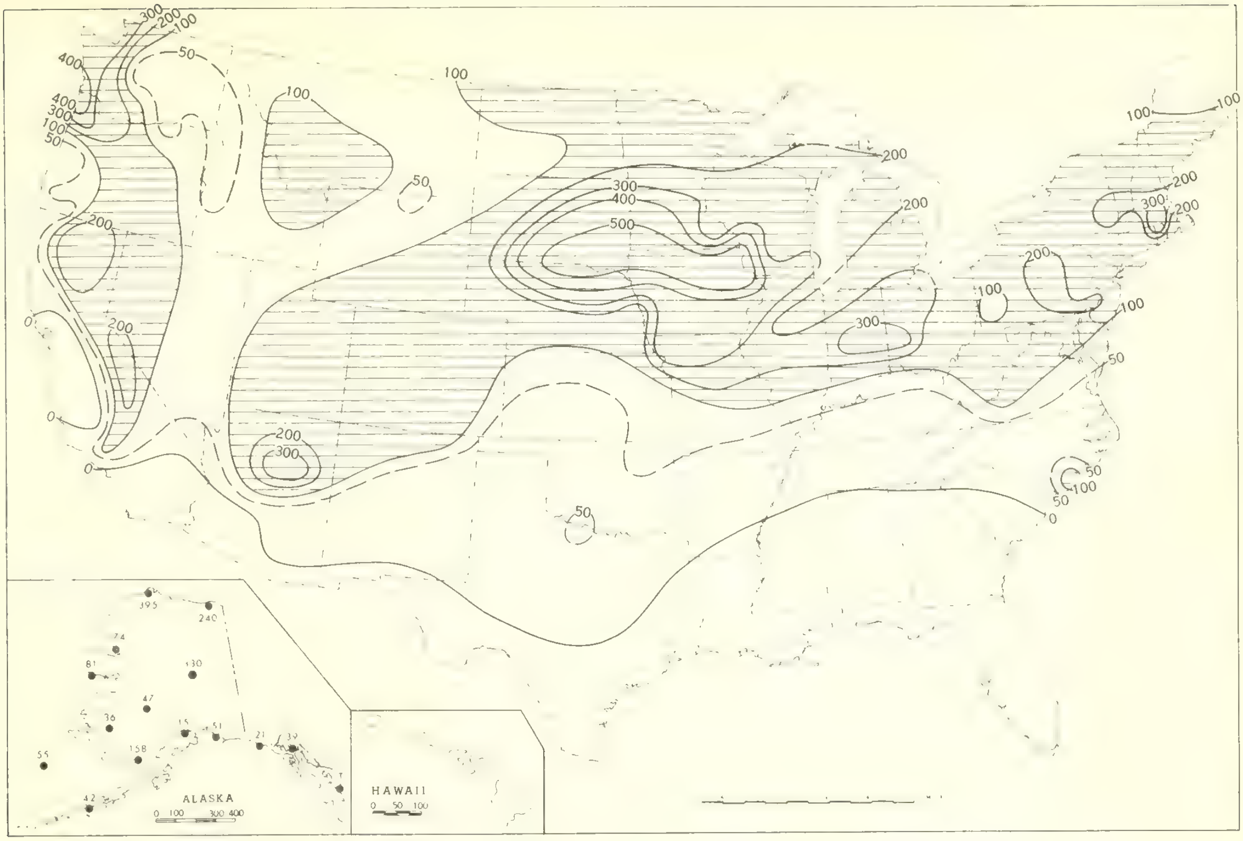
Normal monthly precipitation amounts are computed from the records for 1931-60 for first-order Weather Bureau stations.

Chart IV. Total Snowfall (Inches), February 1962.

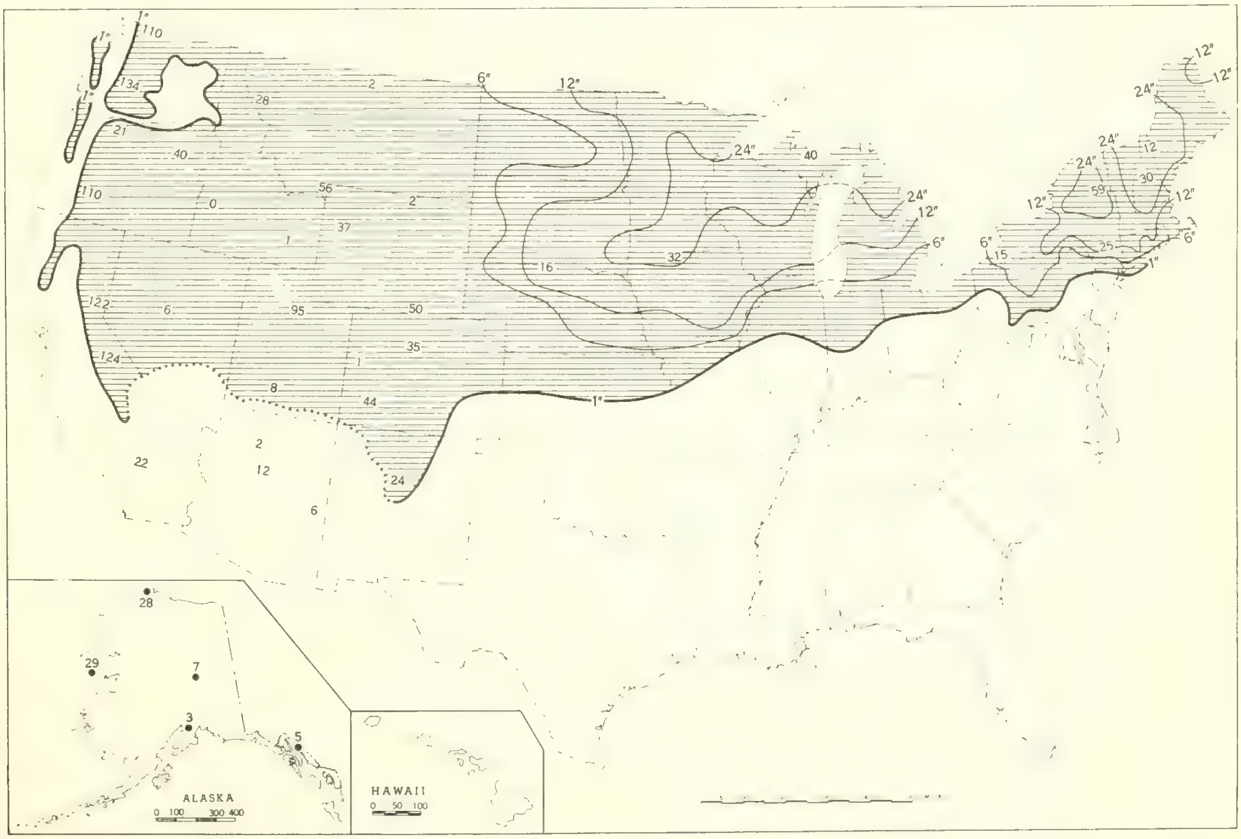


This is the total of unmelted snowfall recorded during the month at Weather Bureau and cooperative stations. This chart and Chart V are published only for the months of November through April although of course there is some snow at higher elevations, particularly in the far West, earlier and later in the year.

Chart V. A. Percentage of Mean Monthly Snowfall, February 1962.

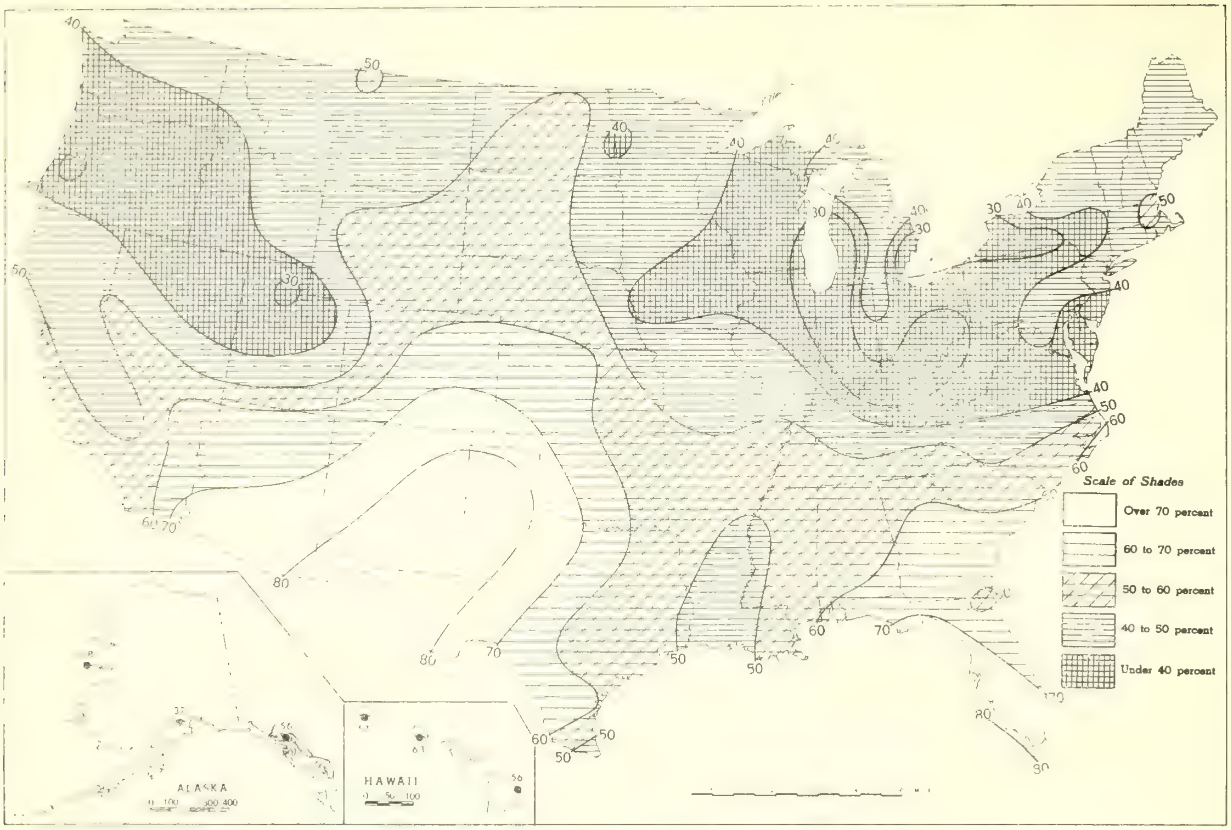


B. Depth of Snow on Ground (Inches), 7:00 a. m. E. S. T., February 26, 1962.

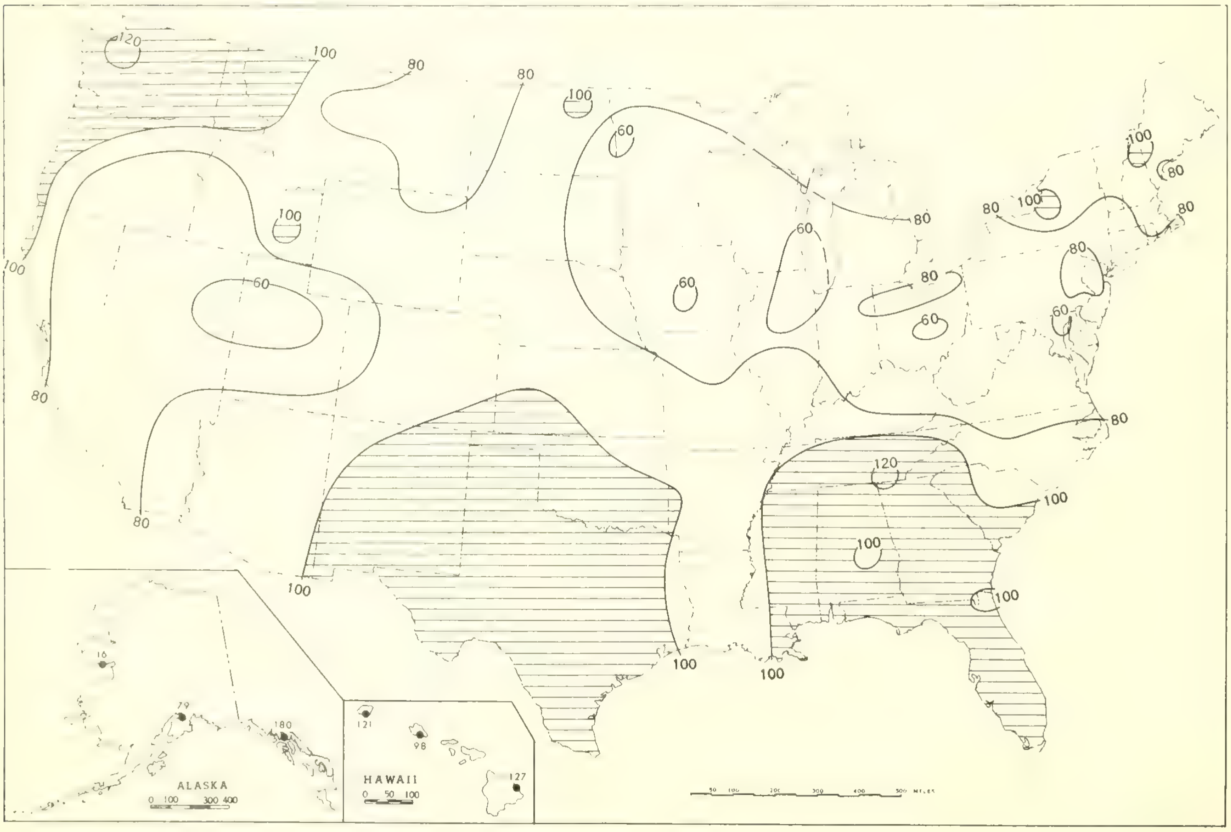


A. Amount of mean monthly snowfall is computed for Weather Bureau stations having at least 10 years of record.
B. Shows depth currently on ground at 7:00 a. m. E.S.T., of the Monday nearest the end of the month.
It is based on reports from Weather Bureau and cooperative stations.

Chart VI. A. Percentage of Possible Sunshine, February 1962.

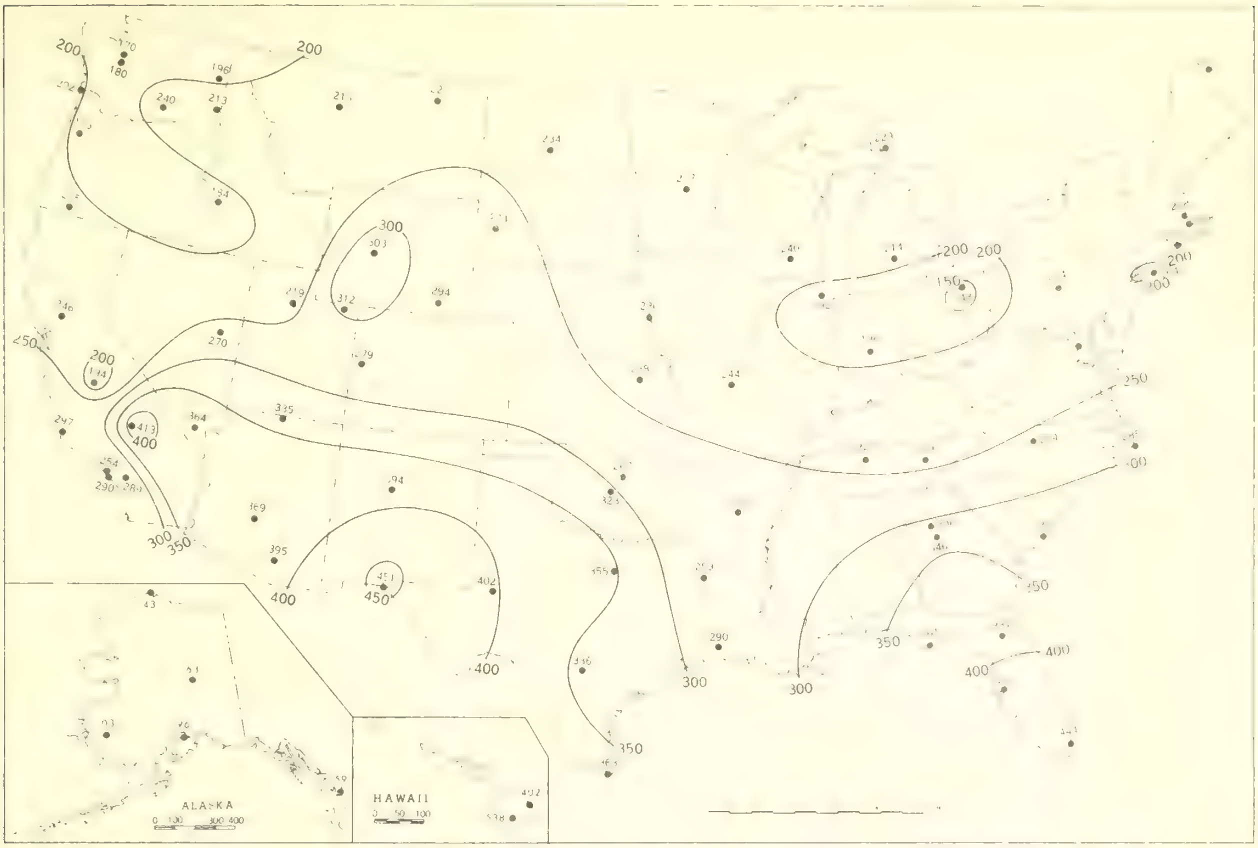


B. Percentage of Mean Monthly Sunshine, February 1962.

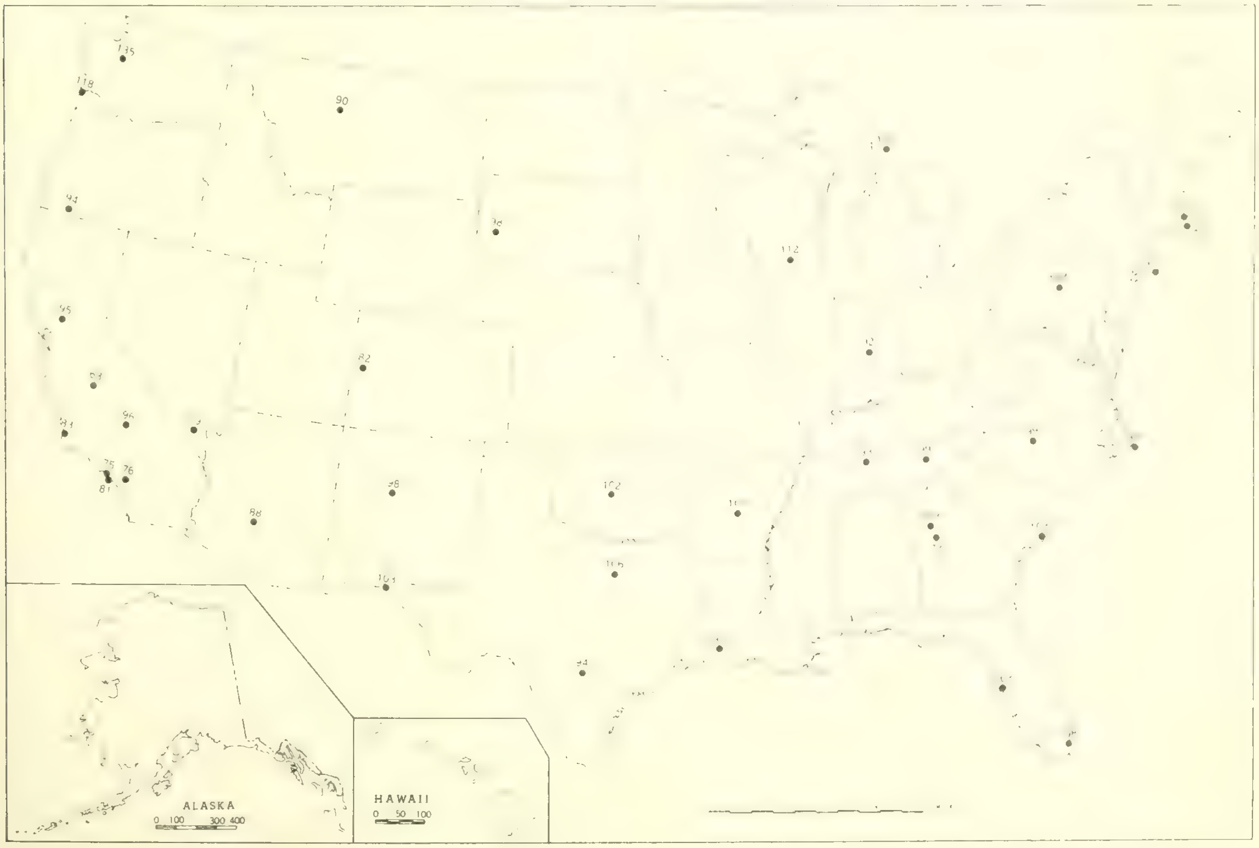


A. Computed from total number of hours of observed sunshine in relation to total number of possible hours of sunshine during month. B. Means are computed for stations having at least 10 years of record.

Chart VII. A. Average Daily Values of Solar Radiation, Langleys, February 1962.



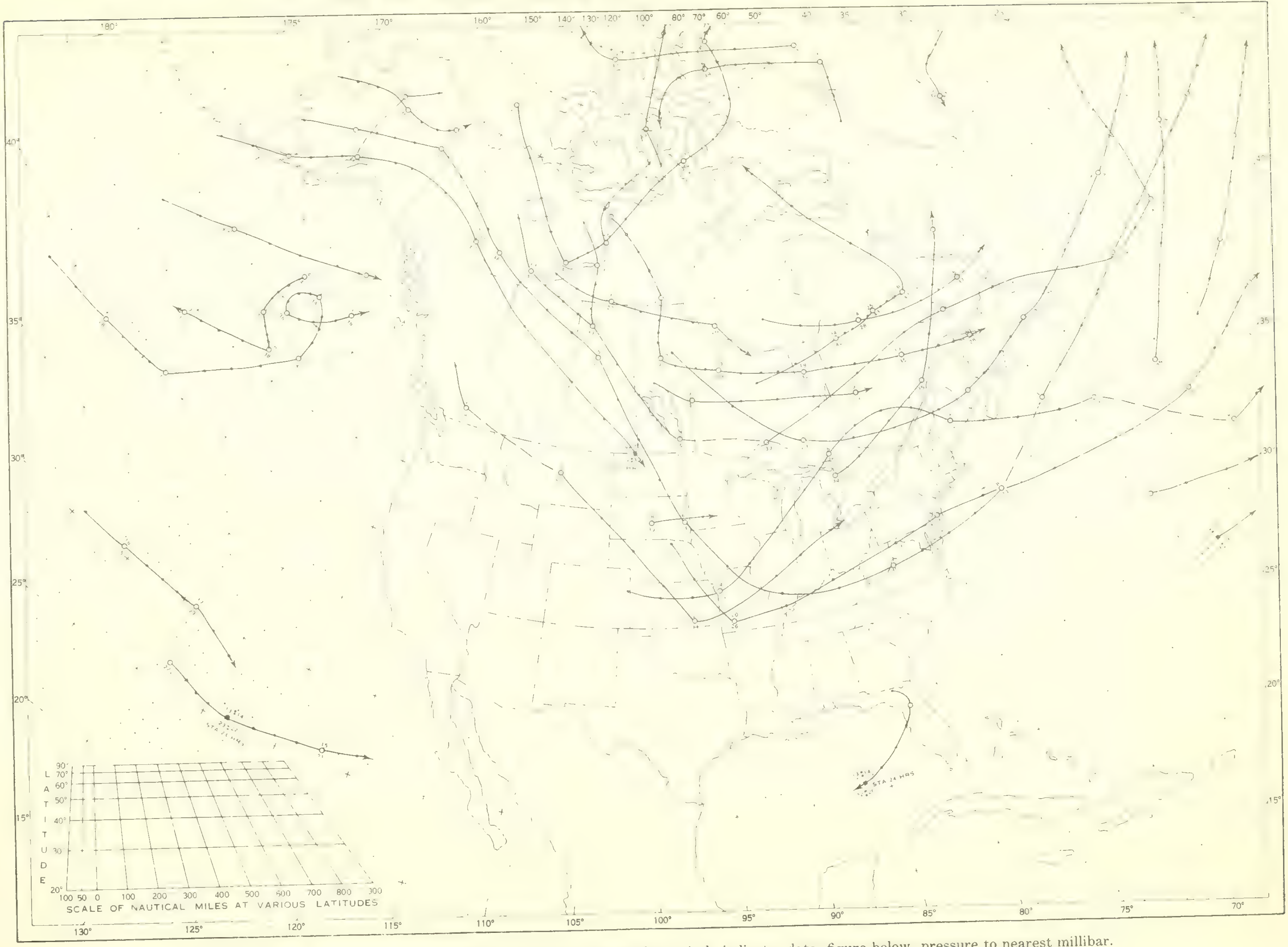
B. Percentage of Mean Daily Solar Radiation, February 1962.



A. Mean daily solar radiation, direct + diffuse, received on a horizontal surface in langleys (1 langley = 1 gm. cal. cm.$^{-2}$) and recorded in International Pyrheliometer Scale of 1956.

B. Percentage of the mean based on the period 1953-57, and corrected to the International Pyrheliometer Scale of 1956.

Chart VIII Tracks of Centers of Anticyclones at Sea Level. February 1962

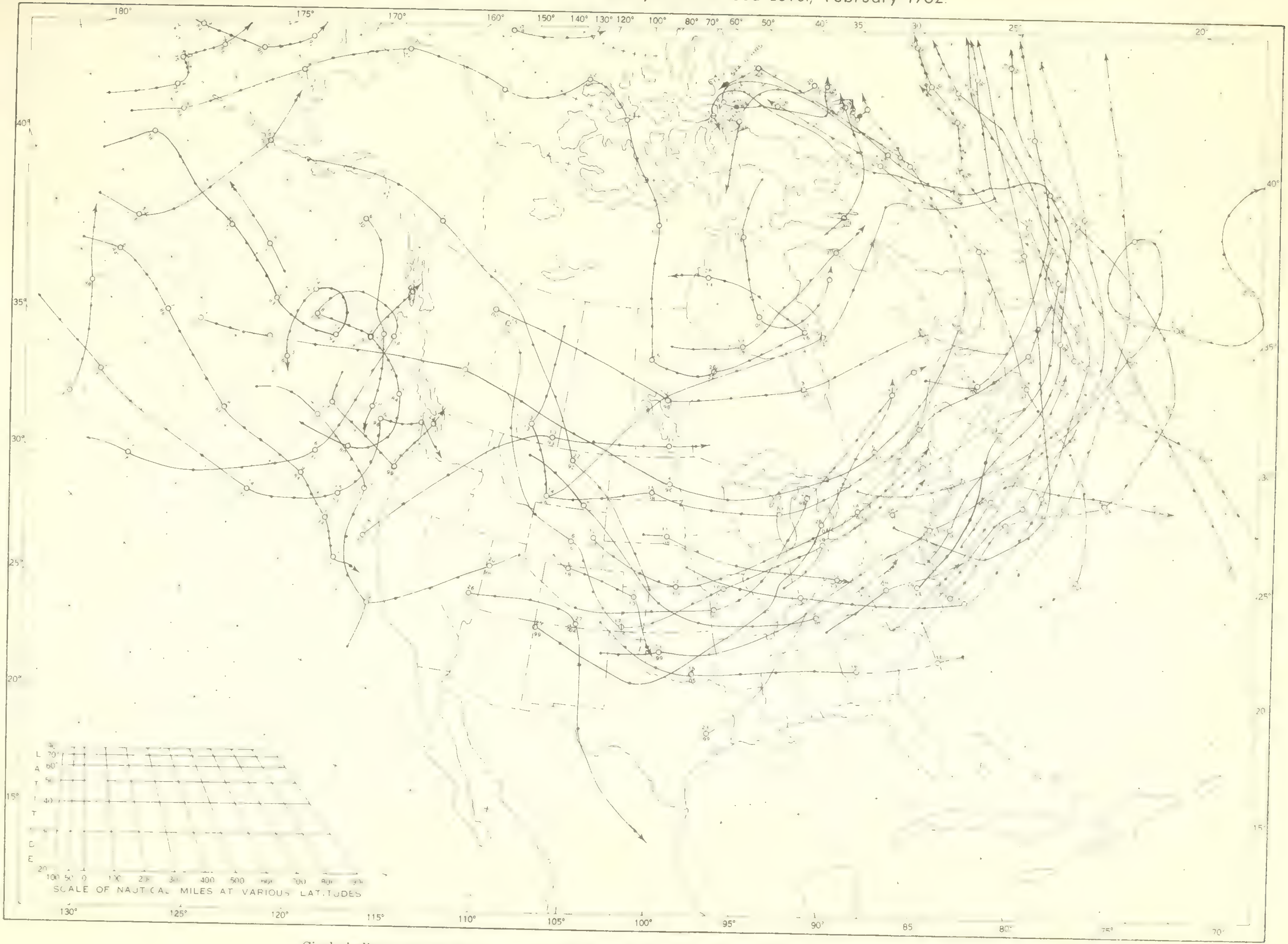


Circle indicates position of center at 7:00 a. m. E. S. T. Figure above circle indicates date, figure below, pressure to nearest millibar. Dashed line in track

Dots indicate intervening 6-hourly positions. Squares indicate position of stationary center for period shown.

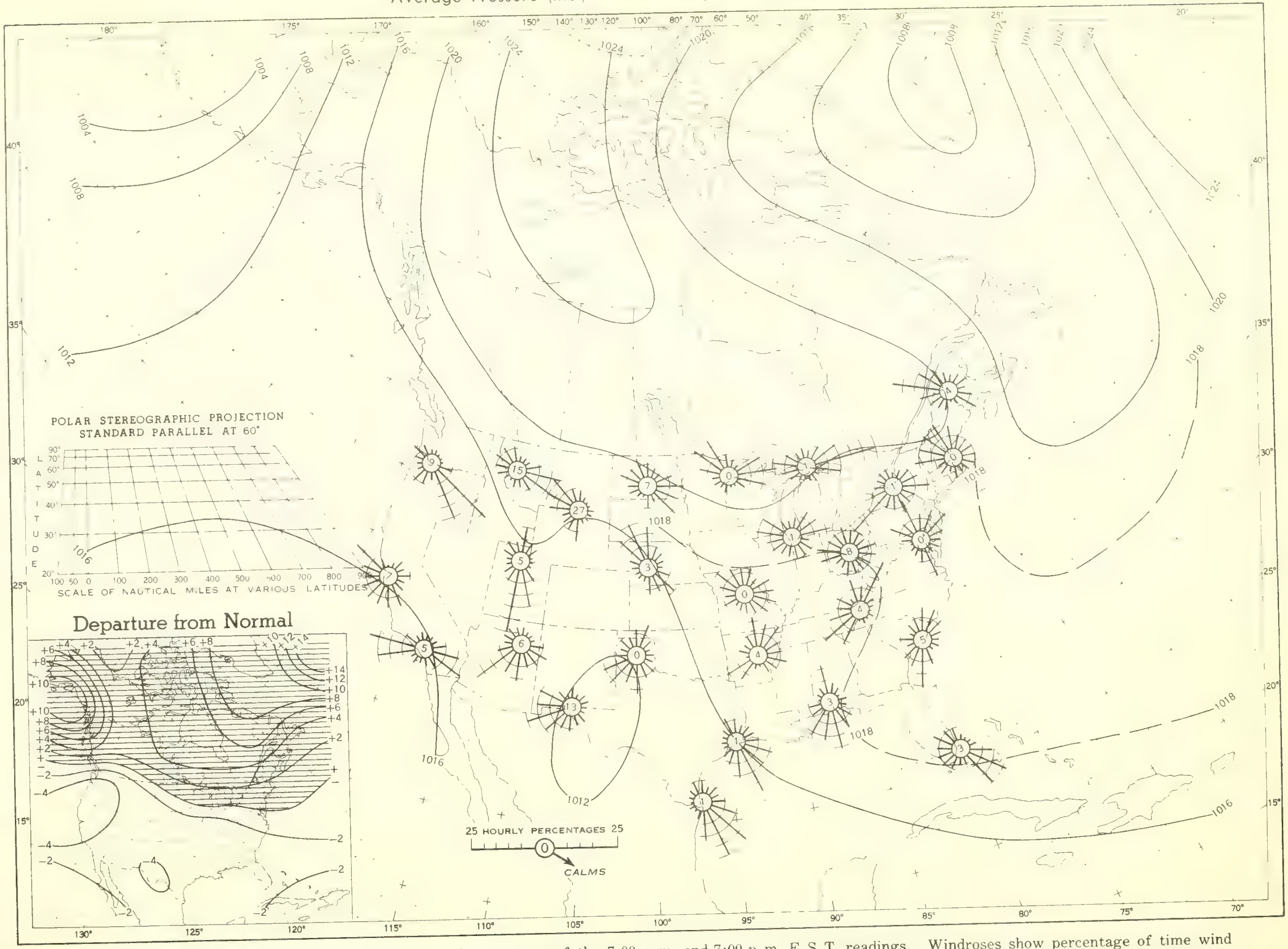
which could be identified for 24 hours or more are included.

Chart IX. Tracks of Centers of Cyclones at Sea Level, February 1962.



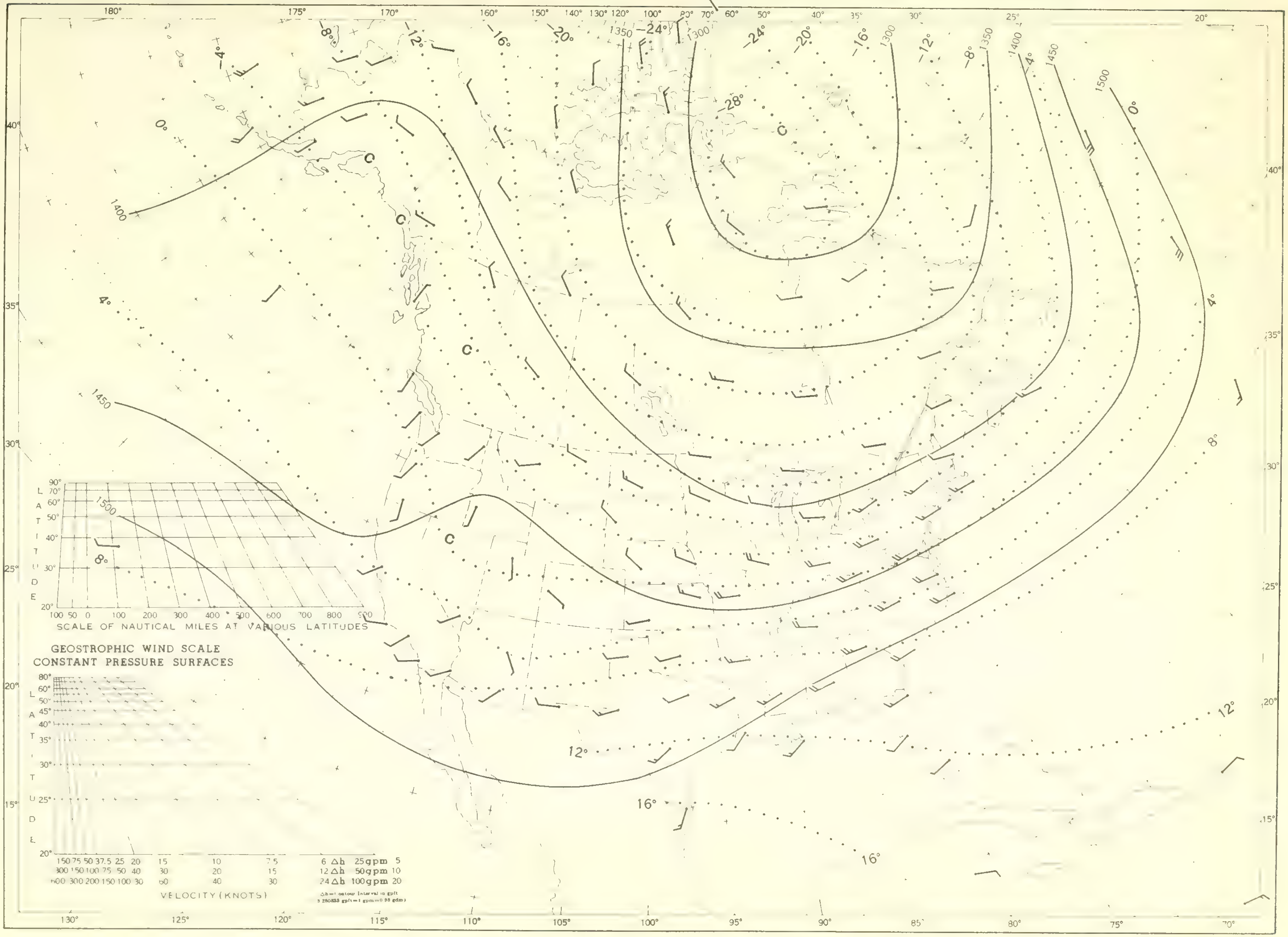
Circle indicates position of center at 7:00 a. m. E. S. T. See Chart VIII for explanation of symbols.

Chart X. Average Sea Level Pressure (mb) and Surface Windroses, February 1962 Inset: Departure of Average Pressure (mb) from Normal, February 1962



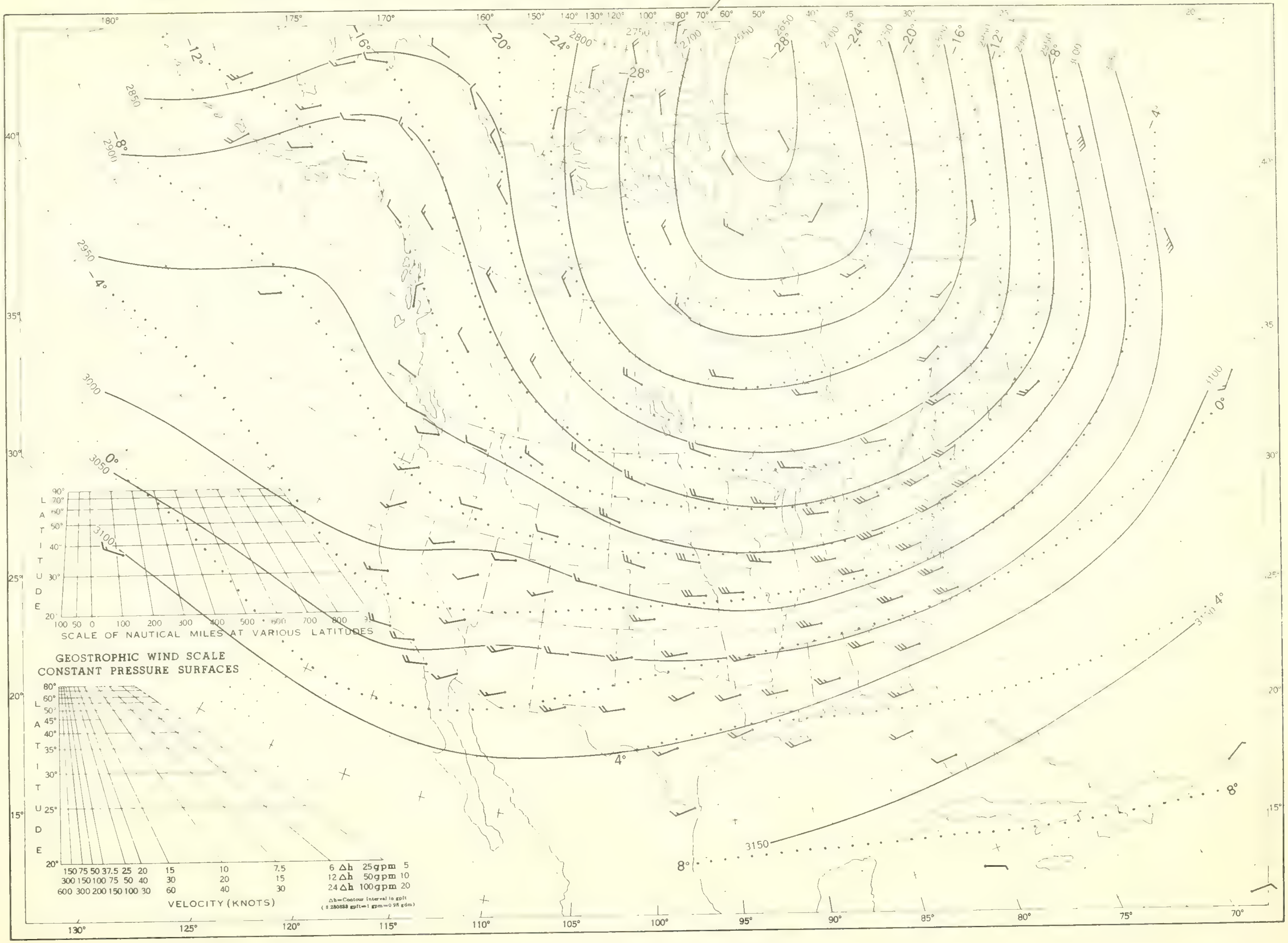
Average sea level pressures are obtained from the averages of the 7:00 a. m. and 7:00 p. m. E. S. T. readings. Windroses show percentage of time wind blew from 16 compass points or was calm during the month. Pressure normals are computed for stations having at least 10 years of record and for 10° intersections in a diamond grid based on readings from the Historical Weather Maps (1899-1939) for the 20 years of most complete data coverage prior to 1940.

Chart XI. 850-mb. Surface, 1200 GMT, February 1962. Average Height and Temperature, and Resultant Winds.



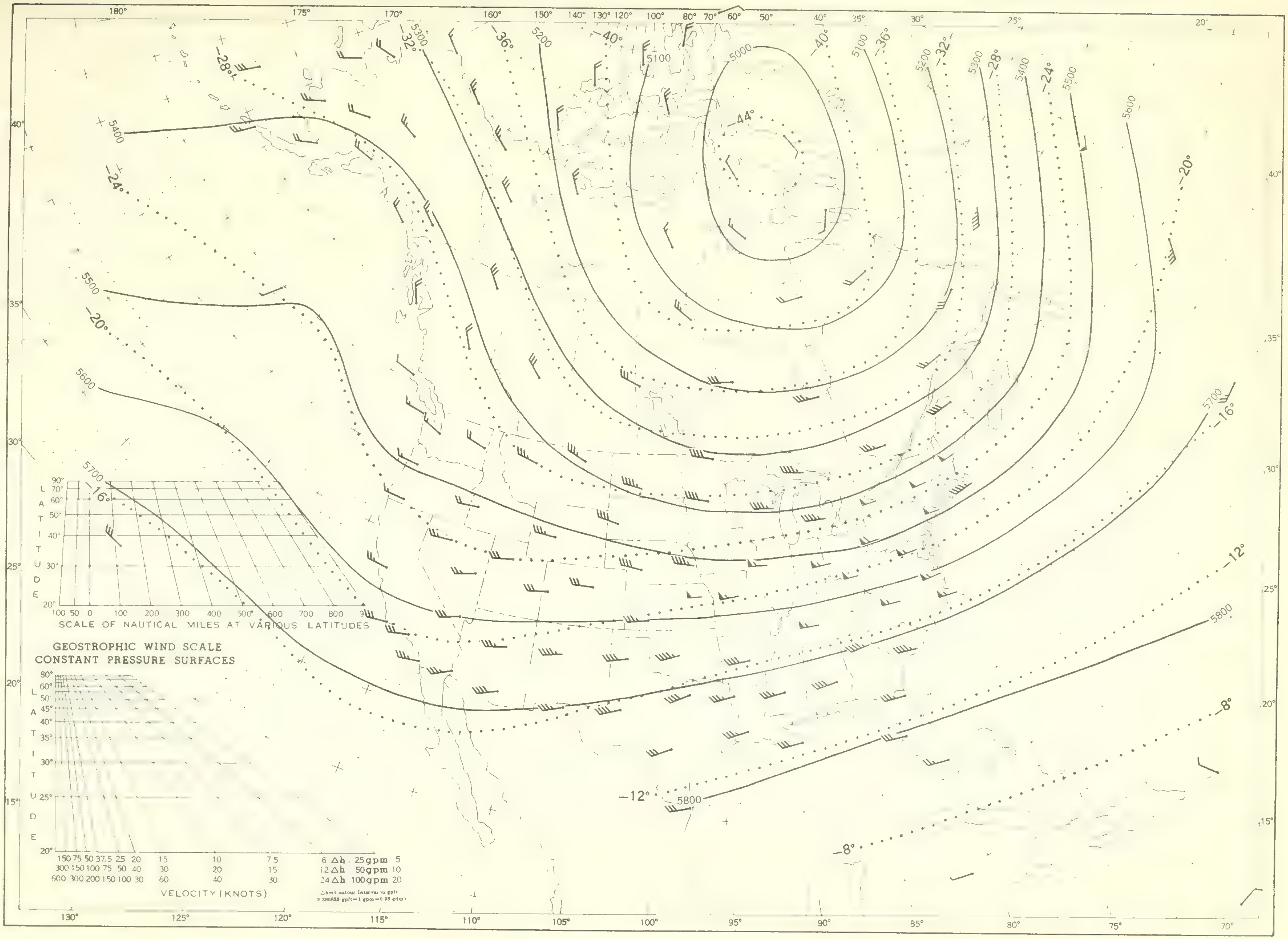
Height in geopotential meters (1 g.p.m. = 0.98 dynamic meters). Temperature in °C. Wind speed in knots; flag represents 50 knots, full feather 10 knots, and half feather 5 knots. All wind data are based on rawin observations.

Chart XII. 700-mb. Surface, 1200 GMT, February 1962. Average Height and Temperature, and Resultant Winds.



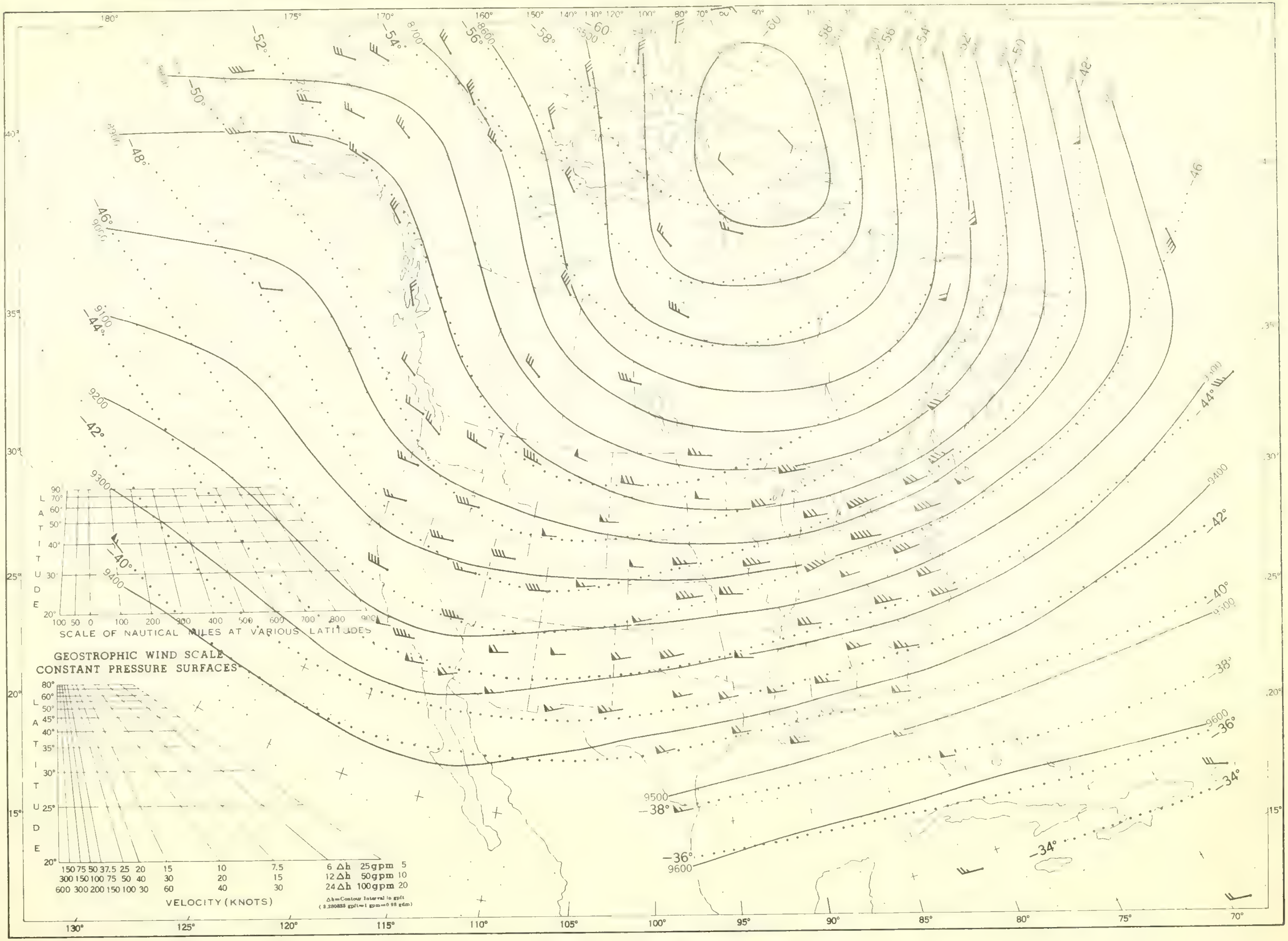
See Chart XI for explanation of map.

Chart XIII. 500-mb. Surface, 1200 GMT, February 1962. Average Height and Temperature, and Resultant Winds.



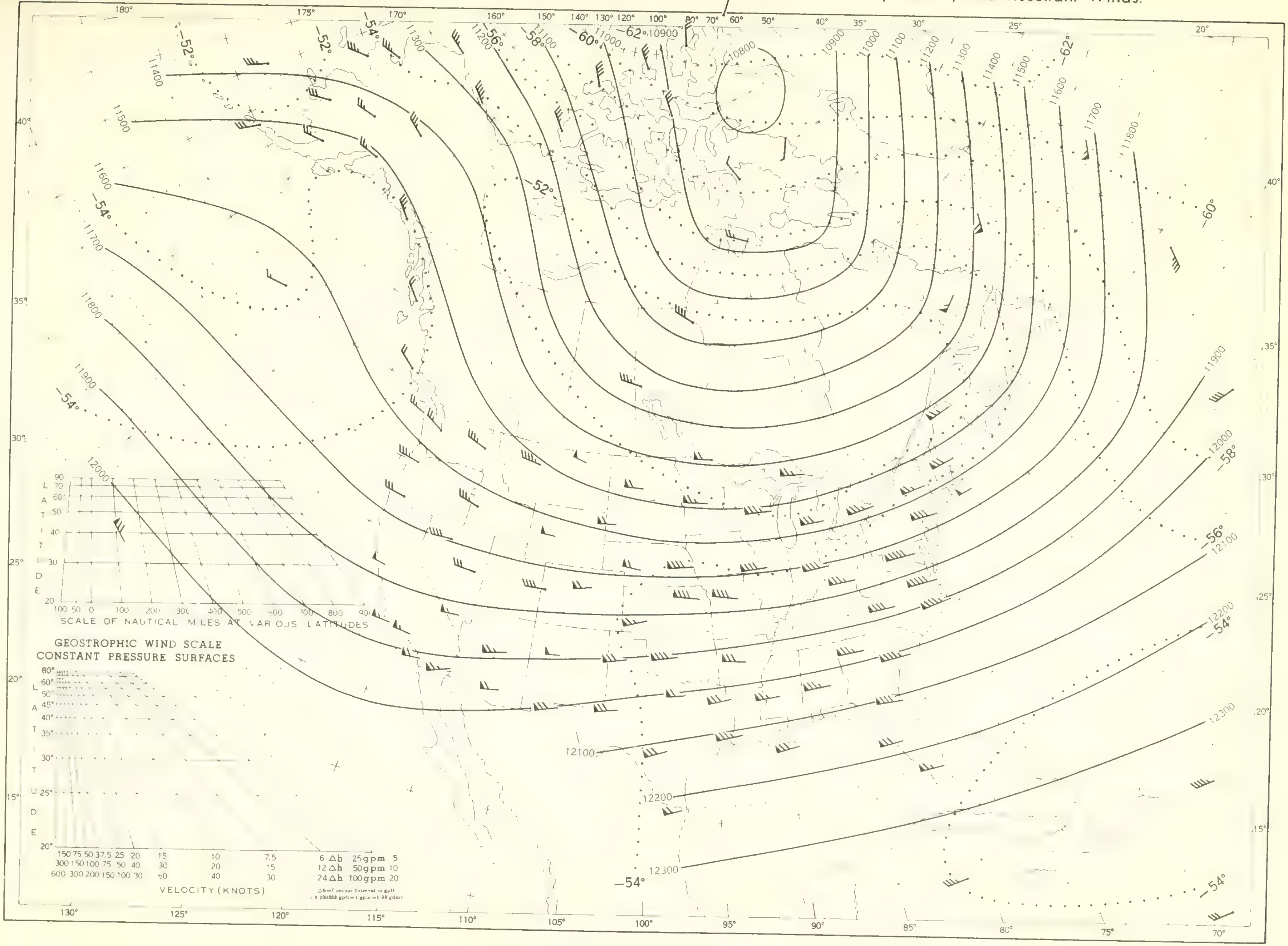
See Chart XI for explanation of map.

Chart XIV. 300-mb. Surface, 1200 GMT, February 1962. Average Height and Temperature, and Resultant Winds.



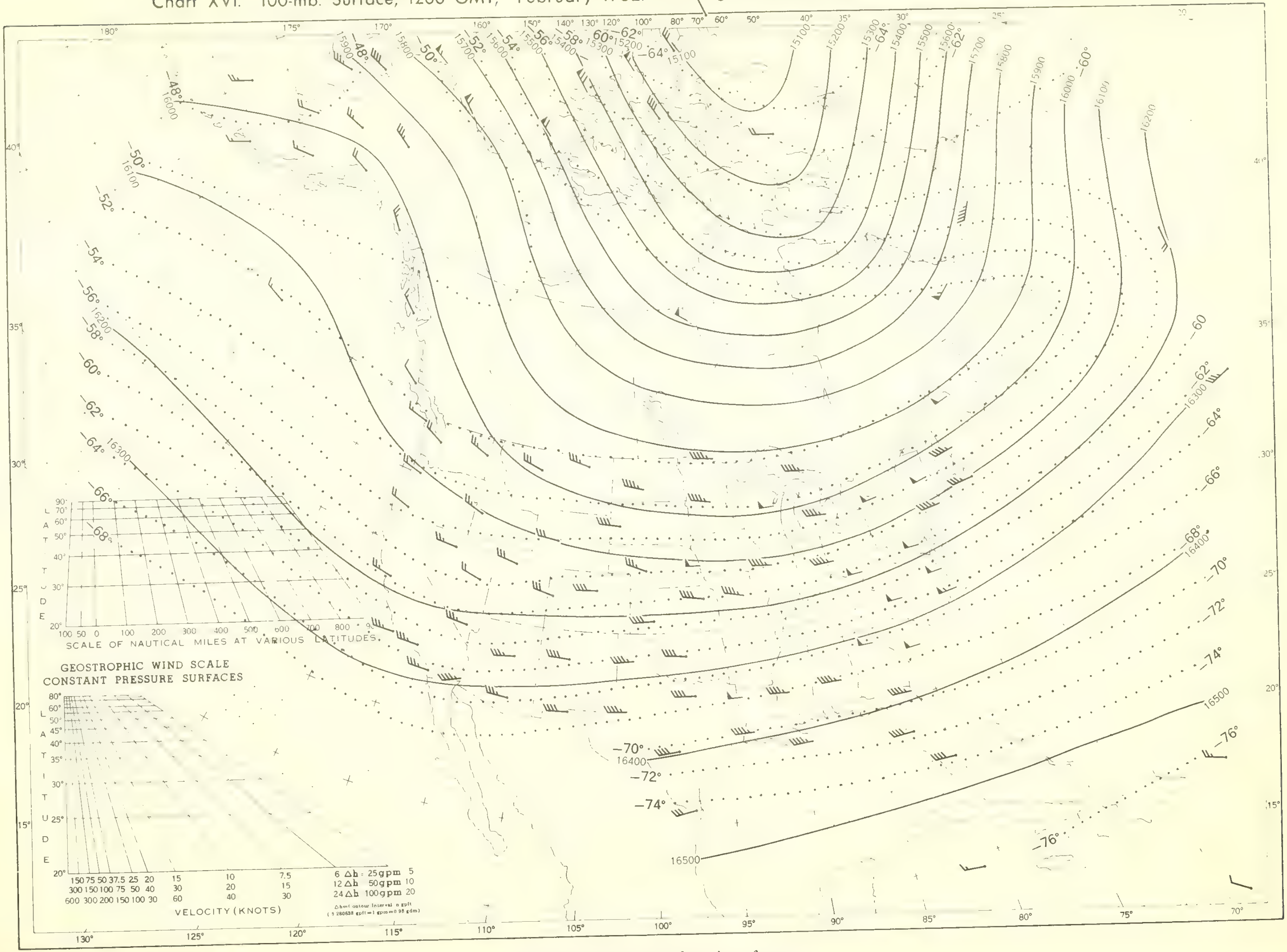
See Chart XI for explanation of map.

Chart XV. 200-mb. Surface, 1200 GMT, February 1962. Average Height and Temperature, and Resultant Winds.



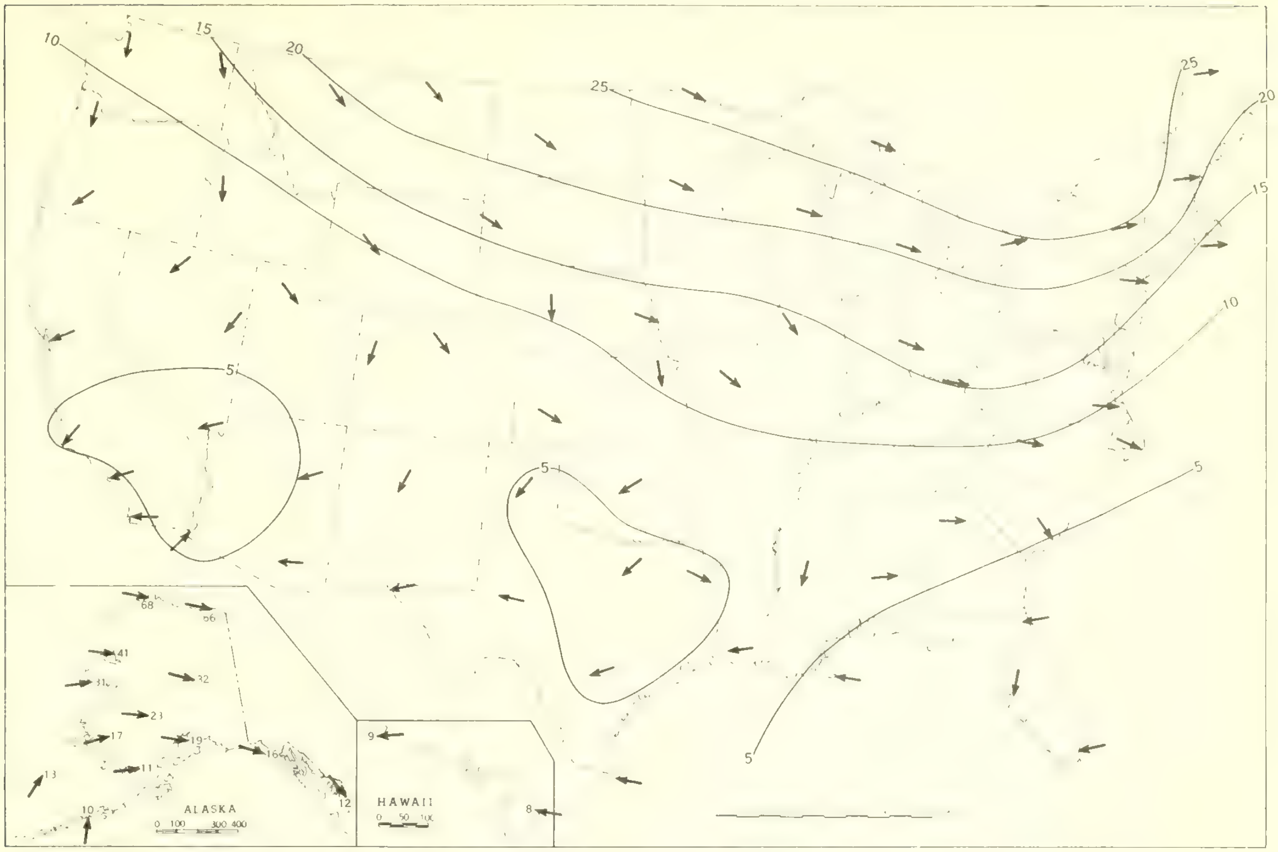
See Chart XI for explanation of map.

Chart XVI. 100-mb. Surface, 1200 GMT, February 1962. Average Height and Temperature, and Resultant Winds.

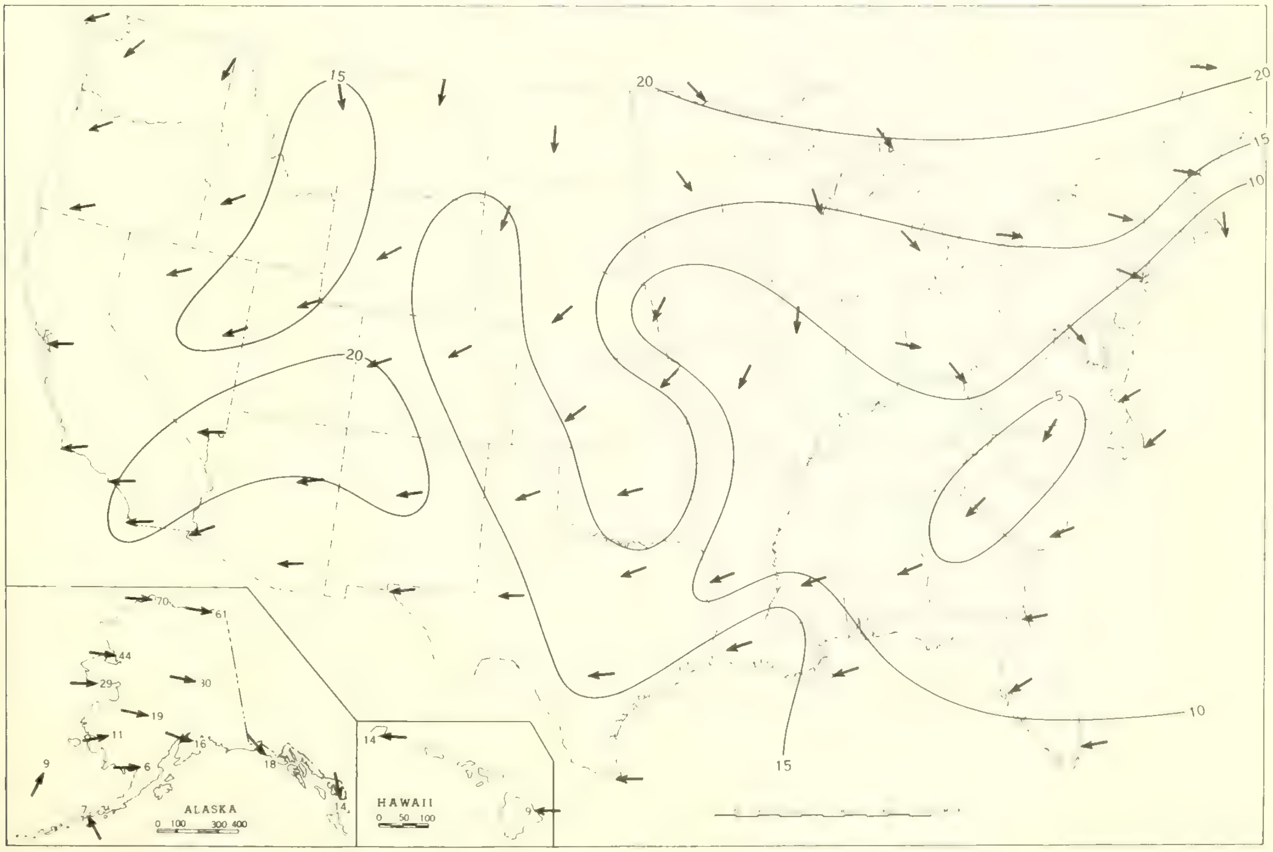


See Chart XI for explanation of map.

Chart XVII. A. 50-mb. Surface, 1200 GMT, February 1962. Resultant Winds.



B. 30-mb. Surface, 1200 GMT, February 1962. Resultant Winds.



Wind speed (isotachs) in knots. Arrows show resultant wind direction. All wind data are based on rawin observations.

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CLIMATOLOGICAL DATA

NATIONAL SUMMARY

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MARCH 1962
Volume 13 No. 3

ASHEVILLE: 1962

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NOTE: Delayed data and corrections will be carried in the June and December issues of this publication.

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CLIMATOLOGICAL DATA

NATIONAL SUMMARY

Volume 13 No. 3 MARCH 1962

GENERAL SUMMARY OF WEATHER CONDITIONS

March was slightly colder than normal except in the Great Lakes region and Northeast where it was a few degrees warmer than normal. Precipitation was near normal except in a few spots where it varied from less than 50 percent of normal in some to over 200 percent in others. Above normal precipitation in most of the Far West further improved the irrigation water outlook there. A record-breaking cold spell occurred in the North Central Interior at the beginning of the month, and freezing caused heavy crop damage in Texas on the 1st and some additional damage in Florida on the 8th. On the 5th through the 9th one of the most damaging storms in the history of the United States hit the Atlantic Coast. This storm is now referred to as the "Great Atlantic Coast Storm". Heavy snow fell in middle Atlantic coastal areas on the 5th and 6th.

TEMPERATURE.--The temperature pattern for the first 3 weeks of the month was one of abnormal warmth in the Great Lakes region and Northeast and unseasonable cold elsewhere. Average temperatures for the month ranged from 8° above normal in northern Maine to 8° below in northern Montana.

An outstanding cold spell in the North Central Interior during the first few days of the month was a continuation of extreme cold weather in that area at the close of February. In three states temperatures on the 1st fell to lower levels than ever before recorded in March: Wisconsin, -48°; Iowa, -35°; and Illinois -21°. On the same date March lows also were recorded for Minneapolis, Minn., (-32°) and Milwaukee, Wis., (-10°). Subzero minima extended as far south as Oklahoma and Texas, with a low of -2° at Fallett in the latter State, and freezing extended to portions of the Gulf coast. In Texas freezing extended to southern portions of the State with a low of 29° at Rio Grande City, ending 4 weeks of summerlike weather in that State. Cold weather spread to the east coast by the 4th with subzero minima at a number of northeastern stations and freezing as far south as northern Georgia. By the 6th freezing extended to the east Gulf coast and northern Florida, and scattered light frost occurred as far south as Fort Myers, Fla., on the 8th and some frost damage was reported in the Lakeland area.

In most of the Nation highest temperatures were recorded during the last 10 days, although in portions of the Carolinas highest temperatures were in the 80's on the 1st and near record levels. Caribou, Maine, had an early season high of 73° on the 30th.

PRECIPITATION.--Precipitation was within 25 percent of normal except in some scattered relatively small spots where monthly totals ranged from no precipitation at all in some to more than 13.00 inches at Madison, Fla. In general, monthly totals were greater than usual in interior sections west of the Continental Divide, the northeastern portion of the Great Plains, the Ohio Valley, and in the middle and south Atlantic Coastal States. Precipitation was generally well distributed through the month.

New England was one of the largest areas with generally less than 50 percent of normal precipitation. Caribou, Maine, had only 0.70 inch, the least there on record for March. Nantucket, Mass., had 0.97 inch, the 2d driest March there during 76 years of record. The second largest area with less than 50 percent precipitation for the month included western Oklahoma and portions of Texas. Amarillo, Texas, had only 0.02 inch, the 7th smallest amount there for March since 1892.

SNOWFALL.--Heavy snow fell in many areas where snowfall is a common occurrence in March. Only in the extreme Northeast were amounts below normal. Snow also fell unusually far south at the beginning of the month; a trace at Corpus Christi, Tex., on the 1st was the third such occurrence there since 1887.

The most important snowfall occurred in the Far West where the mountain snowpack was generally much above normal at the end of the month. Winslow, Ariz., reported a record March fall of 34.1 inches. At Pocatello, Idaho, 7.3 inches in 24 hours on the 1st and 2d was a new record, and 15.4 inches for the month was the most for March since 1916. Ely, Nev., had 15.0 inches for the month, unusually heavy for that location. Salt Lake City, Utah, had 25.3 inches, more than three times the usual amount. Spokane, Wash., measured 15.3 inches, the greatest March total since 1897.

Heavy snow fell in the Middle Atlantic Coastal States on the 6th and 7th. Snow covered large areas of North Carolina on 3 to 5 days and extended to the coast on 2 days, a very unusual phenomenon in North Carolina during March, perhaps unprecedented. During this storm considerable snow fell in South Carolina and up to 7 inches in northern Georgia. Greatest depths were measured in a belt in Virginia extending from Lynchburg with 16 inches to Winchester with 26 inches and including Front Royal with 29 inches. Suburban areas of Washington, D. C., received over 2 feet of wet snow during this storm.

Unusually heavy snow fell during the first half of the month in much of the North Central Interior. Newcastle, Nebr., measured 32 inches of snow on the ground just before midmonth. Huron, S. D., reported three new snowfall records for March, 11.1 inches in 24 hours on the 11th and 12th, a 27-inch depth on the 12th and 13th, and a total of 24.9 inches for the month. Other heavy amounts for the month included 26.2 inches at Sioux City, Iowa, 3d most since 1890; Devils Lake, N. D., 17.6 inches, 2d most there of record; Columbus, Ohio, 13.5 inches, most since 1906; Pittsburgh, Pa., 19.1 inches, 3d heaviest of record since 1885.

DESTRUCTIVE STORMS.--By far the most destructive storm of the month was a vast low pressure system centered off the middle Atlantic Coast on the 6th and 7th. The storm, generating winds up to 85 m.p.h and waves up to 30 feet or higher near the center, battered installations along the coast from Florida to New England. The death toll was 33, 1,252 were injured and thousands of dwellings were either destroyed or damaged. Many beaches were severely battered. Damage totaled many millions of dollars. Few hurricanes have caused as much or as widespread damage as this extratropical cyclone known as the "Great Atlantic Coast Storm".

A tornado was responsible for 16 deaths and considerable damage in Milton, Fla., and vicinity on the 31st.

Hail up to 1.25 inches or more in diameter fell in Evansville, Ind., on the 11th, and in Birmingham, Ala., on the 21st.

Glaze in South Carolina on the 2d and 3d from the Airport up through Summerville, but not affecting the city or immediate coast, was one of the worst ever known in that area and caused damage totaling hundreds of thousands of dollars.

A tornado was reported 5 miles southeast of the Fresno, California, Airport on the 22d. Tornadoes are unusual in this region.

CONDENSED CLIMATOLOGICAL SUMMARY

MARCH 1962

Section	Temperature						Precipitation			
	Monthly extremes						Monthly extremes			
	Station	Highest	Date	Station	Lowest	Date	Station	Greatest	Station	Least
		°F			°F			In.		In.
Alabama	2 Stations	88	22+	Waterloo	19	17	Bay Minette	12.32	Gulf Shores Post Office	1.91
Arizona	do	95	27+	Fort Valley	-17	13	Greer	3.82	Davis Dam No. 2	.00
Arkansas	Fort Smith WB AP	83	28	Eureka Springs	4	1	Burdette	8.03	Fayetteville Exp. Sta.	1.67
California	3 Stations	93	27+	Bridgeport	-14	13	Gasquet RS	14.62	Niland	.00
Colorado	Burlington	83	28	Fraser	-39	14	Wolf Creek Pass 1E	4.45	Kauffman 4SSE	T
Connecticut	Bulls Bridge Dam	78	30	Waterbury Radio WBRY	-7	3	Wolcott Reservoir	5.14	Salisbury	.58
Delaware	Wilmington N Castle WB	78	30	Newark University Farm	10	4	Selbyville	5.48	Newark University Farm	2.86
Florida	Fellsmere	94	22	Wewahitchka	24	6	Madison	13.35	Marathon Shores	.68
Georgia	Cuthbert	87	22	Dahlonega	10	7	Talbotton	11.37	Lumber City	2.34
Idaho	2 Stations	74	26	Island Park Dam	-28	13	Wallace	6.45	May RS	.06
Illinois	Griggsville	81	28	Freeport	-21	1	Marion 2W	5.91	Chicago O'Hare AP	1.33
Indiana	Oolitic Purdue Exp. Farm	79	29	Eight Stations	0	2+	North Vernon 2SW	5.38	Pendleton Reformatory	.96
Iowa	2 Stations	80	28	2 Stations	-35	1	Dubuque WB Airport	3.89	Mount Ayr 2N	.26
Kansas	Aetna 2S	90	28	Quinter	-17	1	Osage City	3.76	2 Stations	.22
Kentucky	4 Stations	79	30+	Williamstown 5WSW	11	3+	Greensburg 1S	6.83	Shelbyville	2.92
Louisiana	2 Stations	87	22+	Ashland 2S	22	6	2 Stations	5.07	Port Sulphur	.62
Maine	Fort Kent	77	30	Clayton Lake	-11	8	Hiram 2S	2.81	Presque Isle	.37
Maryland	2 Stations	82	30	2 Stations	2	8+	Salisbury FAA Airport	6.58	Chewsville Bridgeport	2.50
Massachusetts	Framingham	79	31	Pittsfield WB AP	-3	3+	Newburyport	3.64	New Bedford	.73
Michigan	Detroit WBAP Willow Run	79	29	2 Stations	-40	1	Hillsdale	1.92	Eagle Harbor Coast Gd	.14
Minnesota	Winona	64	29	Bigfork	-47	1	Gaylord	3.36	Brimson	.08
Mississippi	3 Stations	86	22+	University	19	7	Ackerman	7.02	Bay Saint Louis	1.67
Missouri	Seligman	86	23	Edgerton	-21	1	Fisk	6.55	2 Stations	.61
Montana	2 Stations	73	27	Thoeny 3N	-39	4	Haugan	4.35	Harlowton	.03
Nebraska	McCook	82	27	Niobrara	-29	1	Elgin 9WSW Arden	3.50	Mitchell 5E	.10
Nevada	Sunrise Manor Las Veg.	90	27	Charleston	-21	14	Mt. Rose Highway Sta.	5.10	Pahrump	.00
New Hampshire	Windham	77	30	Lancaster	-17	3	Mount Sunapee	3.10	Marlow	.70
New Jersey	Burlington	81	30	High Point Park	-4	3	Tuckerton	5.83	High Point Park	.76
New Mexico	Jal	89	28	Gavilan	-25	14	Bateman Ranch	2.10	2 Stations	.00
New York	3 Stations	80	30	Salisbury	-20	3	Scarsdale	4.33	Mount Morris 2W	.35
North Carolina	2 Stations	85	1	2 Stations	11	8	Manteo	11.02	Oriental	2.73
North Dakota	Fort Yates	74	28	Belcourt Indian Res.	-43	1	Harvey	2.23	Powers Lake 1N	D .10
Ohio	Ironton	83	29	3 Stations	0	2+	Steubenville Water Works	5.09	Montpelier	1.03
Oklahoma	Hollis	94	28	Arnett	0	1	Antlers 2ENE	4.66	Mangum Research Sta.	.07
Oregon	McKenzie Bridge RS	80	31	Hart Mtn Refuge	-11	3	Valsetz	15.77	00 Ranch	.23
Pennsylvania	Mercersburg	81	31	Bradford 4W Reservoir	-14	2	East Brady	5.35	Susquehanna	.83
Puerto Rico	Utuado	95	16	Lajas	52	2	Rio Grande El Verde	8.58	Potala	.00
Rhode Island	Greenville	73	30	Greenville	2	3	Block Island WB AP	2.52	Newport	1.44
South Carolina	2 Stations	86	1	Caesars Head	18	6	Spartanburg WB AP	9.79	Hilton Head	3.04
South Dakota	Winner	77	27	2 Stations	-31	1	Academy	3.99	Ludlow 2NW	.12
Tennessee	Pikeville 2	82	29	Mountain City 2	9	8	Bethel	8.18	Pittman Center	2.96
Texas	Agua Nueva	100	20	Follett	-2	1	Negley	4.41	Numerous Stations	.00
Utah	St George PH	84	27	Scofield Dam	-26	14	Silver Lake Brighton	4.82	Bonanza Pump Sta.	.01
Vermont	2 Stations	76	30	Bloomfield	-16	3	Montpelier FAA AP	2.87	Dorset 1S	.69
Virginia	Richmond WB AP	83	30	Monterey	1	8	Partlow 3WNW	7.65	Speedwell	2.05
Washington	Packwood	74	31	Chesaw 4NNW	-7	4	Cougar 6E	13.26	White Swan	.21
West Virginia	2 Stations	81	30	Bayard	-6	8	Canaan Valley	6.63	Anthens Concord College	1.88
Wisconsin	3 Stations	73	29+	Couderay 2W	-48	1	Bloomer	2.91	Port Wing	.20
Wyoming	Redbird	75	27	Foxpark	-36	13	Bondurant 3NW	2.66	Shoshoni	.00

D Water equivalent of snowfall wholly or partly estimated, using a ratio of 1 inch water equivalent to every 10 inches of snowfall.

+ And also on an earlier date or dates.

NOTE: Dates in the above Condensed Climatological Summary apply to the period 24 hours prior to time of observation. In some cases the actual occurrence is on the calendar date preceding that shown. (See individual Climatological Data for times of observations).

CLIMATOLOGICAL DATA

ENGLISH UNITS

State and Station		Pressure		Temperature								No of days				Precipitation			No of days		Snow, Sleet		Wind		Fastest mile			No. of days (sunrise to sunset)				
	Elevation (ground)	Station ⊙	Sea level	Average maximum	Average minimum	Average	Departure from normal	Highest	Date	Lowest	Date	Max. 90 F. or above	Min 32 F. or below	Average dew point	Average relative humidity	Total	Departure from normal	Greatest in 24 hours	.01 inch or more	With thunderstorms	Total	Maximum depth on ground	Average speed	Prevailing direction	Speed	Direction	Date	Clear, 0-3	Partly cloudy, 4-7	Cloudy, 8 10	Sky cover, tenths (sunrise to sunset)	Possible sunshine
	Ft.	Mb.	Mb.	F.	F.	F.	F.	F.		F.				F.	%	In.	In	In.			In	In.	M p h.		M p h							%
ALABAMA																																
BIRMINGHAM	610	990.7	1016.5	63	41	52.1	- 1.4	79	30	26	6+	0	4	39	66	5.21	-0.79	1.60	9	4	T	T	11.7	NNW	40	W	21	8	5	18	6.8	47
HUNTSVILLE	605	992.5	1016.3	58	38	48.0	- 3.8	76	30+	25	6+	0	9	36	68	6.26	0.69	1.71	9	5	T	T	9.3	ESE	28*	SSW	12	7	4	20	7.0	
MOBILE	211	1014.2	1016.7	68	46	57.0	- 2.3	86	21	29	6	0	3	44	67	6.97	-0.26	4.37	12	4	0.0	0	12.7	N	40*	W	31	9	6	16	6.2	
MONTGOMERY	195	1008.0	1016.5	65	44	54.4	- 1.6	81	21	29	6	0	3	42	66	7.45	1.29	2.77	11	5	T	T	9.0	NW	29	NW	5	8	7	16	6.3	58
ALASKA																																
ANCHORAGE	90	1006.1	1011.2	29	11	19.9	- 3.4	46	31	- 8	23	0	29	10	68	0.58	0.07	0.25	8	0	14.2	11	5.7	NNW	31*	N	11	10	5	16	6.1	57
ANNETTE	110	1010.5	1014.6	41	30	35.7	- 2.1	55	31	15	3	0	20	24	66	6.08	-3.47	1.64	14	0	7.1	1	9.9	SSE	32*	NNW	8	5	7	19	7.3	
BARROW	22	1024.0	1024.6	- 7	-20	-13.5	1.1	18	1	-45	26	0	31	-22	66	0.24	0.13	0.14	8	0	3.1	30	11.2	NE	31*	ESE	2	14	9	8	4.7	
BARTER ISLAND	39	1021.0	1023.0	- 7	-21	-13.8	1.1	33	29	-42	26	0	31	-22	63	0.08	-0.12	0.02	6	0	0.8	22	16.5	W	54*	E	2	10	8	13	5.6	
BETHEL	125	1009.1	1010.6	23	7	15.2	3.6	42	31	-15	25+	0	31	10	78	0.44	-0.59	0.16	10	0	6.2	6	16.3	SSW	46*	NE	11	9	6	16	6.2	
COLD BAY	94	1004.7	1008.4	35	27	31.2	2.7	44	10	19	17	0	25	27	84	2.10	0.35	0.73	17	0	4.6	2	16.0	SSE	44*	SW	26+	0	4	27	9.0	
CORDOVA	40	1008.8	1010.4	35	15	25.1	- 4.0	43	30	- 5	26	0	29	20	80	5.75	1.91	1.04	16	0	69.7	39	6.0	ESE	25*	ESE	17	9	3	19	6.7	
FAIRBANKS	436	997.0	1015.2	22	- 6	8.0	- 0.9	49	31	-36	14	0	31	- 1	67	0.66	0.26	0.27	8	0	12.6	32	6.4	N	25*	NNE	10	13	3	15	5.6	
JUNEAU	17	1012.2	1013.3	36	23	29.4	- 1.0	50	29	1	4	0	28	22	75	5.00	1.73	0.95	15	0	37.4	11	9.3	ESE	31*	ESE	25+	6	4	21	7.6	42
KING SALMON	43	1008.1	1010.0	27	6	16.0	- 3.5	43	31	-25	16	0	29	11	79	1.50	0.54	0.56	14	0	16.2	10	11.5	N	46*	E	31	10	6	15	5.9	
KOTZEBUE	10	1015.1	1015.8	12	- 6	3.0	5.1	35	31	-28	25	0	31	- 3	73	0.51	0.23	0.17	12	0	14.4	25	9.7	ESE	35*	S	1	11	1	19	6.2	
MC GRATH	334	1000.7	1013.9	23	- 1	11.0	2.7	51	31	-39	13	0	30	2	65	0.44	-0.49	0.11	11	0	11.4	27	5.6	N	23*	SSW	8	11	4	16	6.2	
NOME	13	1011.7	1012.4	21	4	12.8	4.9	36	31	-19	24	0	31	7	75	0.83	-0.05	0.24	14	0	8.8	36	14.3	NE	38*	NE	27	12	3	16	5.8	42
ST. PAUL ISLAND	22	1005.3	1006.4	30	22	26.2	2.0	38	5+	7	24	0	30	23	85	1.69	0.63	0.81	15	0	7.6	2	19.1	NE	48*	NE	19	1	3	27	8.9	
SHEMYA	122	996.6	1000.4	36	30	33.0	0.1	41	8	26	9+	0	25	29	85	2.23	-0.34	0.41	25	0	13.6	3	20.2	SW	48*	SE	3	0	7	24	8.7	
YAKUTAT	28	1010.2	1011.5	37	17	26.9	- 4.5	45	30	- 3	23	0	29	24	85	12.60	3.91	3.55	20	0	65.0	30	6.7	ESE	26*	SE	16	6	4	21	7.6	
ARIZONA																																
FLAGSTAFF	6993	786.7	1017.8	44	13	28.1	- 7.5	64	26	- 9	13	0	31	15	61	1.30	-0.15	0.47	7	2	13.0	14	7.4	SW	26*	S	9	13	7	11	4.9	
PHOENIX	1109	975.3	1014.8	71	41	56.0	- 4.5	89	26	31	15	0	1	29	41	0.50	-0.16	0.39	3	1	0.0	0	6.3	SE	28*	SW	19	16	8	7	3.7	86
PRESCOTT	5014	844.9	1015.4	55	26	40.6	- 4.9	75	26	14	1	0	25	18	48	0.75	0.02	0.30	7	0	5.0	3	8.2	S	52	SW	23	15	6	10	4.3	82
TUCSON	2584	925.2	1013.9	67	39	53.3	- 4.2	87	26	27	14	0	6	23	37	0.25	-0.28	0.13	5	0	0.0	0	9.7	SSE	33	W	23+	15	6	10	4.5	86
WINSLOW	4880	849.6	1014.3	57	26	41.8	- 4.3	78	27	16	14	0	23	19	48	0.48	0.09	0.33	6	0	3.1	3	11.6	SW	32*	SSW	19+	14	10	7	4.2	
YUMA	199	1009.5	1015.0	76	47	61.3	- 4.7	95	26	33	1	2	0	30	36	0.17	-0.07	0.13	2	0	0.0	0	8.0	WNW	27	N	13	20	7	4	3.0	94
ARKANSAS																																
FORT SMITH	449	999.2	1016.5	60	37	48.6	- 2.5	83	28	17	1	0	10	34	63	2.67	-0.80	0.93	6	3	0.0	0	8.9	ENE	34	SW	11	11	5	15	5.7	57
LITTLE ROCK	257	1003.2	1016.8	60	39	49.5	- 2.3	81	28	20	1	0	6	35	63	5.17	0.36	1.82	7	4	T	T	10.1	ESE	40	SW	11	13	5	13	5.4	58
TEXARKANA	361			62	42	52.1	- 2.8	78	28	24	1	0	5	40	68	3.22	-1.52	1.29	10	5	0.1	0	9.0	NW								
CALIFORNIA																																
BAKERSFIELD	494	1000.3	1018.8	65	42	53.5	- 3.4	77	27	34	1	0	0	41	66	0.31	-0.75	0.22	3	1	0.0	0	6.9	NNW	37*	SSE	5	5	14	12	5.9	
BISHOP	4108	872.0		58	27	42.4	- 4.7	77	27	14	1	0	25			0.30	-0.25	0.20	4	0	0.4	T						11	12	8	4.9	
BLUE CANYON	5280	837.8		41	29	34.8	- 4.2	59	28	19	9	0	23			8.82	0.37	2.15	15	0	60.1	86	8.4	SW	41	SSW	22+	7	3	21	7.2	
BURBANK	699	990.9	1017.4	65	44	54.2	- 3.7	81	25	35	1	0	0	39	62	1.24	-0.92	0.50	6	0	0.0	0	7.7	S	29*	NW	23	12	7	12	5.1	
EUREKA U	43	1015.6		53	43	48.1	- 0.6	62	26	33	12	0	0			4.04	-1.21	0.89	17	1	0.0	0	8.1	S#	31	SE	4	2	6	23	8.4	42
FRESNO	326	1005.4	1017.4	64	40	52.1	- 2.3	76	27	33	3+	0	0	40	68	1.04	-0.92	0.52	5	1	0.0	0	5.9	NW	33	NW	9	11	9	11	5.0	81
LONG BEACH	34	1016.3	1017.8	63	45	53.6	- 3.2	74	25	36	10	0	0	43	71	1.57	0.20	0.89	6	0	0.0	0	6.6	W	29*	W	9	13	9	9	5.0	
LOS ANGELES	97	1014.2	1017.9	61	46	53.6	- 2.4	70	26	39	10	0	0	45	74	1.11	-0.68	0.55	5	0	0.0	0	7.5	WSW	37*	W	9	14	9	8	4.8	
LOS ANGELES U	312			63	47	55.2	- 4.2	78	26	41	10+	0	0	41	63	1.10	-1.16	0.47	5	0	0.0	0	6.8	W#	33	W	9	13	8	10	4.8	71
MT SHASTA R	3544	889.6		48	29	38.5	- 2.7	68	31	17	13	0	26			3.94	-0.52	2.03	13	0	30.7	10						8	4	19	6.7	
OAKLAND	3	1018.0	1018.2	59	45	52.0	- 1.6	69	18	38	13+	0	0	41	68	1.99	-0.43	1.08	10	0	0.0	0	10.2	WNW	30*	SSE	5	10	7	14	6.1	
POINT ARGUELLO	367	1004.4		56	42	49.1	- 2.9	69	4	31	1	0	2			1.72	-0.24	1.09	13	1	0.0	0	9.9		37*	NW	9	9	10	12	5.8	
RED BLUFF	341	1003.7	1016.7	61	41	50.9	- 3.2	76	28	33	13	0	0	38	65	2.19	-0.51	1.56	9	0	0.0	0	9.4	SSE	36	SE	22+	8	4	19	6.7	69
SACRAMENTO	17	1016.6	1017.8	62	40	51.1	- 3.3	73	27	33	10	0	0	42	76	1.69	-0.67	0.85	6	1	0.0	0	7.7	SW	33	E	5	7	10	14	6.2	69
SACRAMENTO U	23			63	43	52.6	- 2.6	76	27	37	23	0	0			1.84	-0.62	1.08	5		0.0	0										
SANDBERG R	4517	861.5		46	33	39.5	- 5.5	69	27	25	11	0	19			0.82	-0.62	0.28	7	0	4.1	2	13.7	N	40*	NW	29	11	9	11	5.3	
SAN DIEGO	13	1014.2	1017.6	64	48	55.7	- 2.8	72	4	43	15+	0	0	43	67	0.64	-0.93	0.30	8	0	0.0	0	7.0	NW	24	W	9	14	5	12	4.9	62
SAN FRANCISCO	8	1018.0	1018.7	57	44	50.5	- 2.8	65	18	37	13	0	0	43	77	2.98	0.29	1.46	10	0	0.0	0	9.9	WNW	41	NW	9	8	8	15	6.2	
SAN FRANCISCO U	52			58	48	52.7	- 2.0	67	27	45	13+	0	0			2.76	-0.17	1.37	12	0	0.0	0	8.9	W#	31	SE	5					62
SANTA MARIA	238	1009.8	1018.8	60	40	49.9	- 3.4	70	4	31	1	0	1	43	79	1.23	-0.83	0.58	10	1	0.0	0	8.1	WNW	40*	SE	5	11	8	12	5.3	
COLORADO																																
ALAMOSA	7536	766.3		44	9	26.8	- 5.3	64	27+	-10	31+	0	31			1.16	0.90	1.05	6	0	16.1	14						11	12	8	5.0	

See footnotes at end of table

CLIMATOLOGICAL DATA

ENGLISH UNITS

State and Station	Elevation (ground)	Pressure		Temperature											Average relative humidity	Precipitation							Wind					No. of days (sunrise to sunset)			Sky cover, tenths (sunrise to sunset)	Possible sunshine
												No of days							No. of days		Snow, Sleet				Fastest mile							
		Station Ø	Sea level	Average maximum	Average minimum	Average	Departure from normal	Highest	Date	Lowest	Date	Max. 90°F. or above	Min. 32°F. or below	Average dew point		Total	Departure from normal	Greatest in 24 hours	.01 inch or more	With thunderstorms	Total	Maximum depth on ground	Average speed	Prevailing direction	Speed	Direction	Date	Clear, 0-3	Partly cloudy, 4-7	Cloudy, 8-10		
	Ft.	Mb.	Mb.	F.	F.	°F.	F.	F.		°F.				°F.	%	In.	In.	In.			In.	In.	M.p.h.		M.p.h.							%
COLORADO																																
COLORADO SPRINGS	6173	806.6	1016.5	47	21	33.6	- 2.1	71	27	5	14+	0	31	16	55	0.88	0.27	0.46	4	1	8.8	4	8.8	N	29*	NW	24	11	13	7	5.1	
DENVER	5283	833.4	1014.6	47	22	34.6	- 3.3	72	27	- 4	1	0	29	15	51	0.52	-0.69	0.20	7	0	6.8	4	8.6	SSW	38	NE	28	5	16	10	5.7	70
GRAND JUNCTION	4849	857.1	1015.4	50	27	38.4	- 3.1	72	27	13	1	0	25	17	46	0.28	-0.47	0.09	5	1	3.0	2	6.2	ESE	33	NW	28	8	10	13	6.2	72
PUEBLO	4639	852.7	1013.9	53	21	36.9	- 3.2	78	27	- 5	1	0	30	18	52	0.95	0.43	0.66	3	0	11.9	8	9.2	W	52	N	28	11	15	5	4.6	82
CONNECTICUT																																
BRIDGEPORT	7	1015.1	1015.9	46	30	38.2	0.7	63	30	8	3+	0	16	26	58	1.26	-2.99	0.97	4	0	0.4	2	16.1	NNW	44*	ENE	6	13	10	8	5.9	
HARTFORD	169	1008.6	1014.9	46	28	37.2	1.5	75	30	4	2	0	18	25	56	1.89	-1.91	1.61	4	0	0.7	9	10.9	NW	39	NE	6	13	7	11	4.8	71
NEW HAVEN	6	1014.9		47	30	38.2	1.3	65	31+	8	3	0	17			1.55	-3.07	1.05	5	0	0.7	4	10.5		36	NE	7+	12	11	8	4.5	72
DELAWARE																																
WILMINGTON	78	1012.3	1015.7	51	31	41.2	- 0.1	78	30	11	4	0	17	27	61	4.30	0.28	1.79	9	0	5.2	2	13.2	WMW	40*	ENE	6	10	11	10	5.3	
DIST.OF COLUMBIA																																
WASHINGTON U	72			54	38	46.0	0.3	79	30	17	2	0	7			3.64	0.28	1.13	10													
WASH NATL AP	14	1011.8	1016.3	53	36	44.2	- 0.6	79	30	16	2	0	9	26	51	3.83	0.62	1.30	9	2	4.0	2	10.2	N	38	ENE	6	8	11	12	6.0	65
FLORIDA																																
APALACHICOLA U	13	1013.9		67	52	59.1	- 1.9	76	25	30	6	0	1			2.90	-1.62	0.82	7	4	0.0	0	9.8		30	NW	5	9	10	12	5.8	74
DAYTONA BEACH	31	1014.3	1016.1	71	50	60.6	- 3.2	87	11	32	6	0	1	51	73	1.82	-1.74	0.93	12	6	0.0	0	10.5	NW	31*	NW	6	11	6	14	6.0	
FORT MYERS	13	1014.8		79	57	68.2	0.0	87	31+	39	8	0	0			2.65	0.03	1.91	6	3	0.0	0	11.0		32*	N	23	12	11	8	5.0	
JACKSONVILLE	24	1015.1	1016.4	70	49	59.6	- 2.6	84	12	30	6	0	1	46	67	3.10	-0.39	1.10	9	1	0.0	0	10.8	NW	42	SW	21	11	7	13	5.5	51
KEY WEST	5	1014.4	1015.8	78	69	73.5	1.0	85	22	59	8	0	0	63	71	0.90	-0.87	0.78	5	1	0.0	0	13.0	SE	36	NW	6	11	14	6	4.7	80
LAKELAND U	214			74	54	63.9	- 2.6	86	31+	35	6	0	0			3.63	-0.62	2.13	8	4	0.0	0	8.8					11	7	13	5.6	59
MIAMI BEACH	9			78	66	72.0	0.4	90	22	47	8	1	0			2.53	0.58	0.96	7		0.0	0	9.5		32	NW	6	12	14	5	4.4	81
MIAMI	7	1013.7	1015.1	79	61	70.2	- 0.3	89	22+	42	8	0	0	58	68	2.78	0.51	1.01	6	2	0.0	0	11.7	ESE	31*	NW	6	8	16	7	5.1	
ORLANDO	106	1011.5	1016.1	75	53	63.7	- 1.2	89	11	33	6	0	0	51	69	3.55	0.14	1.66	7	3	0.0	0	11.1	WNW	29*	NW	6+	11	6	14	5.5	
PENSACOLA U	13			66	49	57.7	- 2.6	80	21	29	6	0	1			3.74	-2.58	1.59	10	3	0.0	0	11.1		33	W	5					65
TALLAHASSEE	58	1013.8	1016.5	69	46	57.4	- 3.2	82	21	29	6	0	3	49	77	10.66	5.48	7.16	11	3	0.0	0	12.1	S	31*	NNW	5	10	6	15	6.2	
TAMPA	19	1014.2	1016.3	73	55	63.8	- 2.2	84	30	39	8	0	0	52	70	4.26	0.51	1.89	8	5	0.0	0	12.8	S	41*	NW	6	8	9	14	5.9	63
WEST PALM BEACH	15	1014.4	1015.5	79	59	69.1	- 0.8	92	22	41	8	3	0	57	68	4.43	0.99	3.57	6	3	0.0	0	11.9	WNW	42*	NNW	25	8	15	8	5.4	
GEORGIA																																
ATHENS	803	986.4	1016.0	59	39	48.8	- 2.8	78	21	26	6	0	7	36	66	6.63	1.53	1.76	13	6	T	T	10.3	NE	29*	SW	21+	10	4	17	6.6	
ATLANTA	975	973.8	1016.4	58	38	47.8	- 4.1	75	21	25	6+	0	7	36	68	6.72	1.35	1.90	12	5	T	T	10.8	NW	29*	W	21	9	5	17	6.4	54
AUGUSTA	143	1008.8	1015.8	63	41	51.9	- 3.0	83	21	28	7	0	5	40	68	5.31	1.14	1.53	12	4	T	T	8.4	WNW	30*	NW	6	9	4	18	6.8	
COLUMBUS	385	1002.0		63	41	52.3	- 3.0	81	21	26	6	0	4			8.50	2.49	2.86	13	4	T	T	11.4		40*	SW	21	11	3	17	6.4	
MACON	356	1002.0	1015.9	64	43	53.2	- 3.7	84	21	28	6	0	5	39	64	9.69	4.75	2.69	13	4	T	T	11.7	NW	36	NW	6	11	4	16	6.2	59
ROME	637	992.7		58	37	47.5	- 2.9	75	29	26	6	0	8			6.33	0.46	2.14	11	6	T	T						11	3	17	6.5	
SAVANNAH	48	1013.8	1016.5	66	44	55.0	- 3.3	85	21	28	6	0	3	46	76	5.90	1.93	2.71	12	2	0.0	0	10.5	WNW	33	SW	21	8	7	16	6.5	63
THOMASVILLE U	283			67	47	57.4	- 3.0	82	30+	26	6	0	3			4.16	-1.10	1.38	7	2	0.0	0						11	7	13	5.6	
HAWAII																																
HILO	31	1015.2	1017.3	78	63	70.7	0.1	82	17+	59	5	0	0	63	80	10.88	-3.82	3.48	28	0	0.0	0	8.9	WSW	31*	SE	14	3	6	22	7.7	38
HONOLULU	7	1016.6	1016.9	79	67	73.2	0.4	84	15	62	2	0	0	63	72	2.10	-0.79	1.03	10	1	0.0	0	13.2	ENE	35	S	14	7	11	13	6.6	47
LIHUE	115	1012.2	1017.5	78	66	71.9	0.9	83	16	57	10	0	0	62	73	13.08	8.52	6.37	20	4	0.0	0	12.9	NE	35	SW	13	2	11	18	7.7	52
IDAHO																																
BOISE	2838	918.4	1016.1	49	29	38.6	- 2.6	68	26	19	2	0	24	27	66	1.27	-0.05	0.49	10	0	3.7	2	9.9	SE	27	NW	27+	8	4	19	6.8	70
IDAHO FALLS 42NW R	4790			35	11	23.0	- 6.3	51	31+	-20	13	0	31			1.07	0.61	0.48	5													
IDAHO FALLS 46W R	4933	845.6		38	14	26.0	- 4.0	55	26	- 9	12	0	30			0.58	-0.04	0.19	6	0	6.8	5	8.1	WSW	27A	SSW	1					
LEWISTON	1413	963.4		51	32	41.5	- 1.1	67	31	19	2	0	17			1.43	0.25	0.84	13	0	2.3	T						5	1	25	8.2	
POCATELLO	4444	860.8	1017.7	42	23	32.3	- .5	62	26	4	13	0	29	24	75	1.26	0.24	0.42	11	0	15.4	8	11.2	S	35	SW	3	6	4	21	7.3	62
ILLINOIS																																
CAIRO U	314	1003.2		52	37	44.4	- 3.8	74	28	19	1	0	6			4.86	0.07	1.41	12	3	0.1	T	10.2	N#	35	S	29	6	6	19	7.1	49
CHICAGO O HARE	658	991.5	1017.1	40	27	33.5		69	28	- 8	1	0	23	27	78	1.33		0.37	12	0	5.7	4	12.6	ESE	31*	ENE	21	3	4	24	8.2	
CHICAGO MIDWAY	610	993.4	1017.0	41	28	34.6	- 1.7	72	29+	- 5	1	0	20	26	72	1.82	-0.92	0.31	14	0	7.0	3	11.9	E	34	S	28	2	7	22	8.0	44
MOLINE	582	993.9	1017.2	41	25	32.6	- 3.3	75	28	-13	1	0	21	25	74	2.42	0.03	0.67	13	1	7.1	7	10.0	WNW	29	NE	20	3	7	21	7.7	51
PEORIA	652	994.2	1017.4	42	26	33.7	- 3.9	73	28	- 7	1	0	23	26	76	2.15	-0.70	0.93	12	3	2.0	1	12.0	ENE	34	NE	20	4	4	23	7.8	40

See footnotes at end of table

CLIMATOLOGICAL DATA

ENGLISH UNITS

State and Station	Elevation (ground)	Pressure		Temperature											Average relative humidity	Precipitation							Wind					No. of days (sunrise to sunset)			Sky cover, tenths (sunrise to sunset)	Possible sunshine
												No. of days							No. of days		Snow, Sleet				Fastest mile							
		Station Ø	Sea level	Average maximum	Average minimum	Average	Departure from normal	Highest	Date	Lowest	Date	Max. 90° F. or above	Min. 32° F. or below	Average dew point		Total	Departure from normal	Greatest in 24 hours	.01 inch or more	With thunderstorms	Total	Maximum depth on ground	Average speed	Prevailing direction	Speed	Direction	Date	Clear, 0-3	Partly cloudy, 4-7	Cloudy, 8-10		
	Ft.	Mb.	Mb.	F.	°F.	°F.	F.	F.		°F.				F.	%	In.	In.	In.			In.	In.	M.p.h.		M.p.h.							%
ILLINOIS																																
ROCKFORD	728	989.1	1017.2	38	24	31.4	- 2.6	71	28	-11	1	0	28	25	79	3.17	0.71	1.46	11	1	7.9	5	11.1	ENE	31*	SSW	28	2	8	21	8.0	
SPRINGFIELD	588	992.5	1016.6	46	29	37.1	- 2.6	75	28	0	1	0	21	28	73	3.54	0.66	2.00	12	3	2.6	1	12.6	ENE	42	NE	20	5	7	19	7.5	44
INDIANA																																
EVANSVILLE	381	1000.1	1016.4	51	35	43.2	- 1.1	75	29+	17	1	0	10	33	70	4.49	0.18	1.42	14	5	0.5	T	9.4	NW	30	NW	5	5	5	21	7.6	44
FORT WAYNE	791	985.0	1017.3	42	30	35.8	0.0	76	29	9	1	0	16	28	76	1.79	-0.99	0.53	13	1	5.7	3	12.9	ENE	39	NE	21	3	6	22	7.9	48
INDIANAPOLIS	793	984.0	1016.6	45	31	37.7	- 1.2	73	29	8	1	0	15	29	73	4.01	0.60	2.12	12	1	1.7	1	9.6	E	29*	SW	11	1	6	24	8.6	48
SOUTH BEND	768	987.9	1016.9	41	27	34.0	- 0.9	75	29	3	2	0	20	26	76	1.82	-0.92	0.33	12	1	9.2	5	12.4	E	29*	NNE	21	4	7	20	7.8	
IOWA																																
BURLINGTON	694	990.5	1017.2	42	25	33.4	- 3.9	77	28	-11	1	0	27	26	76	1.82	-0.89	0.72	11	3	5.7	6	12.3	ENE	31	SW	28	4	5	22	7.7	51
DES MOINES	948	985.1	1018.1	38	22	29.8	- 5.2	76	28	-22	1	0	26	24	79	1.42	-0.67	0.63	11	3	11.1	18	9.3	E	31	NW	13	5	10	16	6.8	53
DUBUQUE	1065	991.3		37	21	29.0	- 2.9	70	28	-20	1	0	30			3.89	1.13	1.36	9	1	13.3	23						3	9	19	7.6	
SIOUX CITY	1095	974.7	1017.8	33	19	25.6	- 8.0	61	27	-15	1	0	26	23	89	3.19	1.73	1.28	15	0	26.2	28	11.0	NW	45	NW	12	6	6	19	7.3	48
WATERLOO	868	984.6	1017.8	34	18	26.0	- .5	73	28	-34	1	0	29	23	87	2.14	0.09	0.59	11	1	10.2	20	10.6	ESE	25*	NW	13+	6	7	18	7.2	
KANSAS																																
CONCORDIA U	1375	965.0		46	27	36.7	- 3.6	77	28	- 1	1	0	18	27	69	2.14	0.65	1.03	5	0	0.9	1	9.3	NW#	33	NW	12	8	9	14	6.0	59
DODGE CITY	2594	924.5	1014.1	55	27	40.9	- 0.9	82	28	6	1	0	20	24	60	1.34	0.18	1.25	6	2	0.4	T	12.0	SSE	45	N	29+	16	5	10	4.7	76
GOODLAND	3645	884.7	1014.2	51	19	35.2	- 1.3	77	28+	- 1	1	0	29	19	61	0.82	-0.24	0.77	3	3	4.7	3	14.1	NNW	47*	NNE	28	13	7	11	4.9	
TOPEKA	877	979.4	1016.3	50	28	38.9	- 2.8	82	28	- 1	1	0	16	28	70	1.43	-0.58	1.22	4	2	0.1	1	14.7	E	34	S	18+	9	8	14	6.3	57
WICHITA	1321	965.0	1014.8	56	31	43.4	- 1.1	81	28	6	1	0	19	28	61	0.26	-1.38	0.10	5	4	T	T	13.0	SE	48	NW	11	12	9	10	5.5	65
KENTUCKY																																
COVINGTON	869	983.7	1016.4	48	33	40.7	- 0.9	76	29	13	2	0	12	28	66	4.25	0.46	1.98	11	3	5.2	3	10.4	ENE	28*	W	13	2	5	24	8.6	
LEXINGTON	979	980.0	1016.2	50	34	41.7	- 1.5	75	29	16	2+	0	12	32	75	5.16	0.41	2.53	13	2	2.4	2	12.2	ENE	36*	W	21	4	3	24	8.2	
LOUISVILLE	474	996.8	1016.3	51	34	42.3	- 1.0	77	29	16	1	0	11	33	72	3.58	-1.01	1.07	14	4	1,6	1	9.8	ENE	30	SW	11	4	7	20	7.9	35
LOUISIANA																																
ALEXANDRIA	92	1012.0	1016.8	67	41	53.5		81	30	29	6+	0	7	42	70	2.30		1.33	9	3	T	0	6.9	N				7	6	18	6.6	
BATON ROUGE	64	1013.4	1016.6	69	45	56.7	- 3.5	84	30	31	6	0	2	45	70	3.27	-1.64	1.58	6	2	0.0	0	9.2	NW				8	9	14	6.3	
BURWOOD R	5		1016.7	64	52	58.1	- 3.4	76	9	39	6	0	0	52	82	2.80	-1.42	1.15	6	2	0.0	0	12.4	NE								
LAKE CHARLES	14	1013.1	1016.3	68	46	56.7	- 3.9	79	30+	33	6	0	0	47	74	1.39	-2.85	0.82	6	3	0.0	0	11.9	NNE	32*	S	8	7	6	18	6.6	
NEW ORLEANS	3	1014.2	1016.5	68	47	57.9	- 2.5	85	21	32	17	0	1	49	75	1.60	-3.74	0.52	12	3	0.0	0	8.7	NNW	24*	SSE	20	7	8	16	6.4	
NEW ORLEANS AUDUBON	10	1009.5						84	21+	37	6					1.28		0.46	10	2	0.0	0							0			
SHREVEPORT	252	1007.5	1016.9	64	43	53.3	- 3.3	80	28	28	2	0	4	42	69	3.28	-0.87	1.22	8	4	T	T	10.6	SSE				7	9	15	5.9	65
MAINE																																
CARIBOU	624	989.6	1013.5	40	21	30.7	7.9	73	30	- 4	2	0	26	21	64	0.70	-1.68	0.28	5	0	7.7	12	14.2	NW	52*	NW	2	9	6	16	6.3	
PORTLAND	61	1010.1	1014.4	43	24	33.4	2.0	63	30	- 2	4	0	25	25	64	2.15	-2.19	1.48	8	0	12.1	19	10.7	NW	34	NE	13+	12	5	14	5.8	60
MARYLAND																																
BALTIMORE	146	1011.2	1016.2	53	32	42.2	- 0.9	82	30	13	2	0	18	26	57	4.85	1.03	1.49	10	0	13.6	7	11.6	NW	38	NE	6	10	12	9	5.2	65
BALTIMORE U	14			52	36	44.1	- 0.6	80	30	12	2	0	9			5.44	1.50	2.04	11													
FREDERICK	294			50	29	39.3	- 1.8	80	30	11	8+	0	20			3.36	-0.17	1.17	9		10.4	9										
MASSACHUSETTS																																
BLUE HILL OBS R	629	988.9	1012.8	43	28	35.7	0.9	74	30	2	3	0	24		69	1.66	-2.88	1.02	8		1.5	15	18.6	NW	57	NW	24					59
BOSTON	15	1008.4	1013.9	45	32	38.5	0.8	75	30	7	3+	0	13	26	58	1.48	-2.74	0.97	9	0	1.1	5	17.4	WNW	42	NW	24+	10	9	12	5.5	67
NANTUCKET	43	1012.5	1013.2	43	31	36.9	0.8	55	24	13	3	0	14	28	70	0.97	-3.57	0.70	8	0	1.1	1	17.4	NW	50	NE	6	10	8	13	5.9	61
PITTSFIELD	1170			42	23	32.5	1.8	74	30	- 3	3+	0	29			1.00	-2.22	0.55	6		4.4	14										
WORCESTER	986	957.7	1013.6	42	27	34.3	.5	72	30	0	2	0	24	23	57	2.03	-2.08	1.76	7	0	4.5	26	12.3	W	43*	ENE	6	11	10	10	5.5	
MICHIGAN																																
ALPENA	689	992.2		38	17	27.1	- 0.1	60	29	-27	4+	0	29			0.86	-1.16	0.74	6	0	8.4	28	6.7	E#	27	E	12	7	7	17	6.7	58
DETROIT	619	990.5	1018.2	42	28	35.0	0.2	76	29	1	1	0	19	24	68	1.14	-1.28	0.53	8	0	2.3	3	10.6	NNE	29	NW	30	7	4	20	7.2	51
DETROIT M WAYNE CO	633	992.9	1017.8	41	26	33.3	- 1.1	75	29	2	1	0	28	24	73	1.08	-1.33	0.53	9	1	2.6	2	9.6	NNE				4	9	18	7.3	
DETROIT WILLOW RUN	711	988.1	1017.4	43	28	35.0	- 0.3	79	29	3	2+	0	21	25	70	1.14	-1.26	0.47	8	1	3.6	2	11.6	NNE	29*	SSW	29	5	5	21	7.4	
ESCANABA U	594	994.8		36	19	27.5	1.3	48	27	-19	2	0	29	20	75	1.34	-0.32	0.73	5	0	9.3	35	8.4		30	NE	21	7	8	16	6.6	58
FLINT	766	989.6	1018.5	40	24	31.8	- 0.3	75	29	- 5	2+	0	28	24	74	0.74	-1.40	0.40	8	0	4.7	4	9.8	ENE	25*	ESE	12	6	4	21	7.5	

See footnotes at end of table

CLIMATOLOGICAL DATA

ENGLISH UNITS

State and Station		Pressure		Temperature												Precipitation							Wind					No of days (sunrise to sunset)				
												No of days							No of days		Snow, Sleet				Fastest mile							
	Elevation (ground)	Station ∅	Sea level	Average maximum	Average minimum	Average	Departure from normal	Highest	Date	Lowest	Date	Max. 90 F. or above	Min. 32 F. or below	Average dew point	Average relative humidity	Total	Departure from normal	Greatest in 24 hours	01 inch or more	With thunderstorms	Total	Maximum depth on ground	Average speed	Prevailing direction	Speed	Direction	Date	Clear, 0-3	Partly cloudy, 4-7	Cloudy, 8-10	Sky cover, tenths (sunrise to sunset)	Possible sunshine
	Ft.	Mb.	Mb	F	F.	F.	F.	F.		F.				F.	%	In.	In.	In			In.	In	M p.h.		M p.h							%
MICHIGAN																																
GRAND RAPIDS	681	992.4	1018.0	41	25	32.6	0.2	73	29	- 4	2	0	26	23	71	1.74	-0.54	0.88	10	0	8.0	11	10.4	E	31	S	28	5	6	20	7.6	45
LANSING	852	984.5	1017.7	40	23	31.8	- 0.6	75	29	- 9	2	0	29	22	71	1.00	-1.40	0.38	10	0	4.1	9	13.6	ENE	39	NE	21	5	8	18	7.0	64
MARQUETTE U	677	991.0		35	22	28.4	1.7	58	28	-13	1	0	27			1.33	-0.58	0.77	7	0	12.0	36	6.1	NW#	21	NE	12	4	9	18	7.4	61
MUSKEGON	627	993.9	1018.0	39	25	31.8	- 0.1	68	28	- 5	2	0	24	24	75	1.48	-0.57	0.60	11	0	9.0	10	9.7	E	29*	SSW	28+	5	8	18	7.4	
SAULT STE MARIE	721	995.5	1019.2	36	19	27.7	4.4	47	26	-17	2+	0	30	20	75	0.96	-0.85	0.32	9	0	4.3	33	7.6	E	29*	E	12	11	6	14	6.0	63
MINNESOTA																																
DULUTH	1426	975.7	1018.8	31	17	24.3	2.5	42	28+	-28	1	0	31	17	73	1.08	-0.54	0.93	10	0	7.7	27	11.2	ENE	42	NE	4	5	3	23	8.0	42
INTERNATIONAL FALLS	1179	976.1	1018.9	35	17	25.7	6.3	46	21	-38	1	0	30	18	74	0.76	-0.27	0.23	9	0	4.5	23	7.2	SE	24*	SSE	2	6	2	23	7.8	
MINNEAPOLIS	822	983.3	1018.5	32	17	24.5	- 3.1	47	28	-32	1	0	29	19	78	1.87	0.34	0.85	9	0	21.8	27	10.3	SE	27	NNE	12	3	9	19	7.6	36
ROCHESTER	1297	967.9	1017.8	31	17	24.0	- 4.4	52	28	-31	1	0	30	21	85	1.33	-0.31	0.80	9	0	16.2	18	10.5	SE				5	10	16	7.1	
ST CLOUD	1034	978.9	1018.6	34	17	25.7	0.1	50	28	-32	1	0	31		78	1.12	-0.16	0.28	9	0	15.2	22						5	7	19	7.5	
MISSISSIPPI																																
JACKSON	305	1004.1	1016.7	63	42	52.5	- 3.9	80	30	25	6	0	4	39	65	3.61	-1.96	1.20	7	4	0.0	0	8.5	NNW	31	W	5	9	6	16	6.2	57
MERIDIAN	292	1002.7	1016.9	64	40	52.1	- 4.4	83	30	24	6	0	7	41	70	5.32	-1.00	3.53	10	2	0.0	0	8.5	N	25*	NW	5	10	7	14	6.0	
VICKSBURG U	243	1006.9		61	44	52.6	- 5.0	77	29+	28	1	0	4			3.18	-2.55	1.01	10	2	T	T	9.2		33	NW	5	8	7	16	6.4	57
MISSOURI																																
COLUMBIA	778	986.7	1015.5	49	29	38.8	- 3.1	82	28	- 2	1	0	17	29	73	3.04	0.39	2.40	10	2	1.2	1	12.5	ESE	34	SW	11	4	11	16	7.2	47
KANSAS CITY	742	979.8	1015.8	50	31	40.1	- 2.7	83	28	- 1	1	0	12	28	66	1.91	-0.58	1.49	7	3	0.1	2	9.7	ENE	42	NW	4	7	8	16	6.8	71
ST JOSEPH	809	980.6		46	26	36.0	- 4.2	80	28	- 9	1	0	20			0.87	-1.46	0.65	5	0	0.2	6	13.1	ESE	32*	NW	13	7	11	13	6.2	
ST LOUIS	535	995.2	1016.5	49	31	39.6	- 3.5	80	28	5	1	0	15	29	68	3.00	-0.08	1.84	11	2	0.6	1	11.7	WNW	36	NE	11+	5	6	20	7.5	38
ST LOUIS RFC	465			49	34	41.1	- 3.2	80	28	6	1	0	12			3.60	0.41	2.11	9	0	0.4	T										
SPRINGFIELD	1265	967.2	1015.8	52	31	41.6	- 2.4	79	28	5	1	0	15	30	67	2.58	-0.26	1.17	8	4	0.3	1	12.7	SSE	45	SW	11	7	8	16	6.7	59
MONTANA																																
BILLINGS	3567	888.3	1016.0	40	19	29.5	- 3.7	67	27	- 6	1	0	25	17	65	1.23	0.18	0.55	10	1	11.5	6	9.5	SW	32	NW	21	3	8	20	7.6	74
GLASGOW	2277	940.7		29	10	19.3	- 7.4	65	26	-24	4	0	29	15	82	0.55	-0.01	0.22	8	0	5.5	6						5	7	19	7.3	
GREAT FALLS	3662	885.9	1016.6	35	17	25.9	- 5.3	63	26	-19	4	0	26	15	66	0.74	-0.18	0.23	6	0	5.9	5	9.5	SW	32	SW	24	0	12	19	8.2	69
HAVRE	2582	925.5		32	9	20.5	- 6.4	65	26	-18	3+	0	29			0.41	-0.19	0.24	7	0	3.1	4	6.0	W#	31	W	26	2	11	18	7.5	70
HELENA	3893	870.0	1016.4	41	17	29.1	- 2.3	65	26	- 5	2	0	29	17	64	0.69	-0.01	0.19	10	0	7.3	2	7.3	WSW	29	W	25	3	9	19	7.4	64
KALISPELL	2965	909.2		40	19	29.8	0.0	57	31	1	11	0	27			1.09	0.13	0.26	11	0	6.5	5	5.8					3	6	22	8.2	
MILES CITY	2629			38	15	26.1	- 4.8	69	27	-15	1	0	27	18	75	0.65	0.00	0.39	7	0	2.5	4	9.2	NW	29*	NNW	31	4	11	16	6.8	
MISSOULA	3190	899.4	1016.6	41	21	30.9	- 2.8	59	31	1	13	0	29	23	75	0.66	-0.07	0.19	12	0	6.9	3	5.8	NW	31	NW	8	3	4	24	8.3	52
NEBRASKA																																
GRAND ISLAND	1841	948.5		38	19	28.5	- 8.7	74	28	- 5	1	0	28	22	78	1.58	0.31	0.47	11	0	8.4	12	12.0	NW				9	5	17	6.5	
LINCOLN U	1150			41	24	32.9	- 5.2	77	28	- 5	1	0	23			1.09	-0.64	0.54	9		2.5	3	10.7	NW#	34	NW	4	6	10	15	6.9	52
NORFOLK	1544	959.2		35	18	26.0	- 7.3	73	27	-12	6	0	28			2.48	0.89	1.20	12	0	12.0	18						7	5	19	7.2	
NORTH PLATTE	2779	913.5	1015.3	44	20	32.0	- 3.0	78	27	2	5	0	28	21	69	1.15	0.17	0.37	6	1	7.1	5	12.5	NNW	43	NW	12	9	4	18	6.6	60
OMAHA	978	975.6	1017.1	41	23	31.9	- 5.0	75	28	- 9	1	0	24	25	79	1.53	0.08	0.54	13	2	8.9	11	12.3	WNW	40	NW	13	6	10	15	6.7	49
OMAHA N OMAHA AP	1323	967.0		38	22	29.7	- 5.0	72	28	-13	1	0	25			1.39	-0.07	0.57	15	2	8.0	11						6	8	17	6.7	
SCOTTSBLUFF	3950	875.8	1015.2	46	20	33.1	- 1.7	73	27	- 4	1	0	29	19	62	0.34	-0.52	0.17	7	1	2.9	5	14.2	NW	40*	NW	12	9	9	13	6.1	
VALENTINE	2587	922.6		38	15	26.2	- 5.1	77	27	-10	5	0	28	21	81	0.82	-0.19	0.35	8	0	6.4	19	11.8	N#	38	N	31+	8	8	15	6.3	66
NEVADA																																
ELKO	5075	842.5	1016.2	45	22	33.3	- 2.1	64	27+	2	2	0	31	21	64	0.63	-0.20	0.17	11	0	14.9	6	7.7	SW	25*	W	27+	8	3	20	6.7	
ELY	6257	806.0	1016.0	43	16	29.3	- 4.2	62	27	- 6	13	0	31	18	65	1.09	0.24	0.37	8	0	15.0	4	8.8	S	36	S	6	7	8	16	6.5	69
LAS VEGAS	2162	948.5	1014.5	64	38	51.3	- 4.0	86	27	23	1	0	6	18	31	0.17	-0.18	0.08	4	0	T	T	9.1	WSW	35*	SSW	22+	16	7	8	4.2	87
RENO	4404	860.8	1016.6	54	25	39.6	- 1.4	73	26	15	9	0	27	25	61	0.84	0.16	0.37	8	1	12.3	3	6.6	WNW	31	W	2	6	10	15	6.5	68
WINNEMUCCA	4299	865.6		47	25	36.0	- 2.0	68	27	14	12+	0	29	25	68	0.89	0.08	0.30	8	0	10.0	6	8.1	S	37	N	9	8	2	21	7.0	46
NEW HAMPSHIRE																																
CONCORD	339	1003.9	1016.6	45	23	34.0	2.3	76	30	2	2	0	26	22	57	1.64	-1.62	1.05	7	0	4.5	24	8.1	NW	30	NW	24	12	7	12	5.3	63
MT WASHINGTON OBS	6262	796.5		18	7	12.5	0.8	42	30	-25	2	0	30		84	6.53	0.79	3.99	11	0	28.1	14	38.6	NW	129Y	SE	12	8	7	16	6.8	43
NEW JERSEY																																
ATLANTIC CITY	58	1013.3	1015.5	50	31	40.8	- 0.3	74	30	12	4+	0	18	26	61	5.42	1.51	2.22	9	0	3.9	2	12.0	W	44*	E	6	10	11	10	4.8	59
ATLANTIC CITY U	10			46	35	40.1	- 1.4	55	28+	19	2	0	6			4.56	1.03	1.74	8				15.6		44*	NE	6					

See footnotes at end of table

CLIMATOLOGICAL DATA

ENGLISH UNITS

State and Station	Elevation (ground)	Pressure		Temperature											Average relative humidity	Precipitation							Wind					No of days (sunrise to sunset)			Sky cover tenths (sunrise to sunset)	Possible sunshine
												No. of days							No of days		Snow, Sleet				Fastest mile							
		Station O	Sea level	Average maximum	Average minimum	Average	Departure from normal	Highest	Date	Lowest	Date	Max. 90 F. or above	Min. 32 F or below	Average dew point		Total	Departure from normal	Greatest in 24 hours	01 inch or more	With thunderstorms	Total	Maximum depth on ground	Average speed	Prevailing direction	Speed	Direction	Date	Clear, 0-3	Partly cloudy, 4-7	Cloudy, 8-10		
	Ft.	Mb.	Mb	F	F.	F	F.	F		F.				F.	%	In	In	In			In	In	Mph		Mph							%
NEW JERSEY																																
NEWARK	11	1014.2	1015.5	51	33	42.0	1.5	80	30	11	3	0	12	24	48	3.35	-0.74	2.37	7	0	1.5	1	12.8	NW	37*	ENE	6	16	9	6	4.0	
TRENTON U	56	1007.6		50	33	41.4	0.7	78	30	11	3	0	12			3.65	-0.19	1.48	7		4.9	4	11.8	NW#	42	NE	6	14	9	8	4.6	71
NEW MEXICO																																
ALBUQUERQUE	5310	845.6	1012.9	56	27	41.2	- 5.1	75	27	11	15	0	24	15	40	0.18	-0.30	0.10	4	0	0.2	T	8.5	NNW	43	W	10	14	8	9	4.9	75
CLAYTON	4969	840.8		56	24	40.1	- 0.8	80	27	7	14	0	28			0.18	-0.45	0.10	2	0	0.8	T						12	10	9	4.7	
RATON	6379	800.9		52	16	34.1	- 4.0	73	27	- 5	1	0	31			0.37	-0.15	0.32	3	0	3.5	4						11	11	9	4.9	
ROSWELL	3612	889.9		65	30	47.4	- 0.6	87	27	14	2	0	20	18	37	0.12	-0.38	0.12	1	0	1.2	T	12.2		50	NW	23	15	7	9	4.6	74
SILVER CITY	5373	831.0		58	29	43.5		76	27	16	15	0	23			0.50		0.25	5	0	2.2	1						14	8	9	4.5	
NEW YORK																																
ALBANY	277	1012.4	1016.2	44	26	34.7	1.7	79	30	0	2	0	23	23	57	1.70	-1.02	0.80	5	0	3.2	8	10.0	WNW	34	NW	15	12	6	13	5.7	59
BINGHAMTON	1590	955.6	1015.7	38	24	31.0	0.2	71	30	- 3	2	0	28	23	64	2.31	-0.58	1.37	10	0	2.8	3	11.3	NW	36	SE	11	9	6	16	6.3	59
BUFFALO	705	988.9	1017.9	40	25	32.5	2.0	73	29	2	3+	0	28	23	60	1.23	-2.01	0.43	13	1	6.7	3	10.4	WSW	34	SW	29	9	7	15	6.5	50
NEW YORK U	132	1003.1		51	35	43.1	2.6	79	30	11	3	0	7	23	50	2.97	-1.04	2.33	4	0	0.2	T	12.4	NW#	51	NE	6	18	7	6	3.5	75
NEW YORK	19	1013.4	1015.4	48	35	41.1	0.3	71	30	13	3+	0	9	26	56	2.61	-1.62	1.83	4	0	0.7	T	17.2	NE	43	NE	6	16	9	6	4.3	
ROCHESTER	543	998.2	1018.1	42	25	33.5	1.2	78	29	- 1	3	0	26	24	68	1.25	-1.76	0.67	6	0	4.6	3	11.4	WSW	33	W	17+	9	7	15	6.3	57
SCHENECTADY	217			44	26	35.1	2.6	76	30	1	2	0	22			1.76	-0.93	0.90	6		4.3	8						19	5	7	3.7	
SYRACUSE	424	994.7	1017.4	43	26	34.6	2.0	76	29	1	2	0	24	23	59	1.96	-1.64	0.92	9	0	1.2	3	10.0	WNW	36	NW	1	12	5	14	5.7	56
NORTH CAROLINA																																
ASHEVILLE U	2203	935.0		52	35	43.4	- 2.8	70	29	19	6	0	13			4.13	0.39	1.00	15	0	8.3	3	10.0	NW#	33	W	21	9	2	20	6.8	47
CAPE HATTERAS R	7	1013.8	1014.6	54	40	46.7	- 4.3	72	31	30	19+	0	2	39	77	5.72	1.56	2.86	11	4	T	T	12.4	NNE	60	NNW	7	6	9	16	6.7	59
CHARLOTTE	735	986.7	1015.5	58	38	48.2	- 2.3	77	21	27	18+	0	7	33	60	5.47	1.08	1.28	12	2	1.4	T	8.2	NE	34	SW	21	6	9	17	6.8	53
GREENSBORO	891	983.6	1015.7	55	34	44.5	- 2.9	76	30	22	3	0	13	31	64	4.76	1.07	1.56	13	3	10.2	1	9.1	NE	32	NW	6	7	5	19	6.8	52
RALEIGH	433	1001.3	1015.4	56	35	45.5	- 4.0	75	31+	22	3	0	13	32	63	4.85	1.50	1.76	12	2	4.3	2	9.1	NE	35*	S	31	6	7	18	6.9	52
WILMINGTON	30	1012.5	1015.6	60	41	50.5	- 3.7	78	31	29	3	0	8	39	69	5.01	0.98	1.97	14	3	1.1	T	11.0	NNE	35	SW	21	5	11	15	6.7	52
WINSTON SALEM	967	979.7	1015.7	55	37	45.9	- 2.4	76	30	21	3	0	12	29	56	4.09	0.08	1.51	13	3	8.4	3	10.9	ENE	40*	SW	31	7	7	17	6.6	
NORTH DAKOTA																																
BISMARCK	1647	955.2	1018.3	33	13	23.2	- 2.0	70	27	-28	1	0	28	16	76	0.71	-0.07	0.40	6	0	5.7	5	10.4	SE	35	NW	13	1	6	24	8.2	57
DEVILS LAKE U	1471	962.6		28	11	19.1	- 2.5	50	27	-27	1	0	31			1.65	0.88	0.81	10	0	17.6	18	8.7	SE#	25	N	31	4	9	18	7.7	55
FARGO	900	982.4	1018.3	30	16	22.7	- 1.6	43	27	-23	1	0	28	19	82	1.08	0.33	0.39	9	0	10.7	14	12.0	SSE	36	NW	12	3	8	20	7.7	40
WILLISTON U	1899	947.2		32	10	21.0	- 4.3	62	26	-28	5	0	29			0.60	-0.11	0.24	10	0	5.4	6	9.9	NW#	43	NW	30	4	10	17	7.2	50
OHIO																																
AKRON	1209	978.3	1017.4	43	27	34.8	- 0.5	75	29	5	2	0	22	25	73	2.36	-0.96	0.52	11	1	14.7	8	10.3	ENE	25	SW	29	3	11	17	7.7	
CINCINNATI OBS	761			49	33	40.8	- 1.9	77	29	13	2	0	14			4.10	0.21	2.05	12	1	3.3	2	7.6		22	SW	19					31
CINCINNATI U	553	992.9		50	35	42.5	- 2.0	76	29	15	2+	0	10			3.92	-0.15	1.93	11	2	2.1											
CLEVELAND	777	988.4	1017.0	41	27	33.8	- 1.6	77	29	6	1	0	24	25	74	1.73	-1.40	0.36	13	0	8.9	3	12.0	NNE	38	N	6	2	8	21	7.9	48
COLUMBUS	812	986.0	1016.6	45	28	36.9	- 3.0	77	29	9	2+	0	21	25	67	2.43	-0.73	0.47	12	0	13.5	9	9.5	N	30	W	13	2	6	23	8.2	36
COLUMBUS U	724			47	31	39.0	- 1.5	75	29	9	2+	0	16			2.63	-0.25	0.70	12		12.2	9										
DAYTON	1002	979.1	1016.3	45	29	36.9	- 2.0	76	29	9	2	0	20	28	73	2.34	-0.78	0.62	13	1	10.7	6	11.6	N	36	SW	11	2	6	23	8.6	38
MANSFIELD	1296			42	27	34.1	- 1.1	73	29	4	2	0	25			1.78	-2.00	0.54	11	1	7.0	3						3	7	21	8.1	
SANDUSKY U	603	994.7		41	30	35.4	- 1.6	77	29	8	1	0	20			2.11	-0.73	0.60	13	0	8.3	6	10.0		35	NE	21	11	4	16	5.8	54
TOLEDO	676	991.7	1017.7	42	28	35.0	- 0.2	78	29	6	1	0	21	25	67	1.74	-0.52	0.55	10	2	9.6	7	11.0	ENE	26	S	29	5	3	23	7.9	41
YOUNGSTOWN	1178	973.1	1017.1	42	26	34.0	- 2.3	75	29	2	2	0	23	24	73	1.96	-1.39	0.54	13	0	19.6	10	11.3	SE	28*	SSE	11	5	7	19	7.4	
OKLAHOMA																																
OKLAHOMA CITY	1280	971.3	1015.6	61	36	48.1	0.1	81	28	10	1	0	13	31	57	0.80	-1.17	0.61	3	1	0.0	T	15.6	SSE	51	SW	10	12	10	9	4.8	84
TULSA	650	991.0	1015.5	58	34	46.1	- 2.5	80	28	9	1	0	14	30	59	3.24	0.81	1.61	5	3	0.0	2	13.3	SSE	37	SE	28	12	6	13	5.2	65
OREGON																																
ASTORIA	8	1014.9	1015.3	51	36	43.3	- 1.2	69	29	27	12	0	9	37	82	5.18	-3.74	0.97	20	0	1.6	1	10.8	SSE	43*	SSW	22	4	3	24	8.2	
BURNS U	4151	870.3		46	23	34.7	- 2.7	65	31	8	2	0	29	25	69	1.22	0.25	0.34	11	0	11.3	3						10	3	18	6.6	
EUGENE	361	1002.4		53	36	44.6	- 1.4	67	29	28	13+	0	11			7.07	2.75	1.97	19	0	1.9	1	9.8		30*	N	28	4	7	20	7.5	
MEACHAM	4050			39	25	31.7	- 1.6	54	31	14	2	0	30			4.97	1.01	1.26	19	0	38.0	19						5	4	22	7.9	
MEDFORD	1298	968.2	1016.7	57	33	44.6	- 1.2	75	31	21	13	0	16	33	70	1.55	-0.23	0.42	15	0	4.7	2	5.5	NW	26*	SE	5	8	3	20	7.2	
PENDLETON	1482	961.1	1015.3	52	35	43.5	- 0.6	67	31	26	1	0	10	31	64	1.14	-0.06	0.38	15	1	0.7	T	8.6	W	40*	W	8	6	4	21	7.1	
PORTLAND	21	1009.8	1015.7	54	37	45.3	- 0.8	69	31+	28	28+	0	7	36	74	4.25	0.42	1.23	20	1	0.1	1	8.5	ESE	31	S	24+	5	2	24	7.7	32

See footnotes at end of table

CLIMATOLOGICAL DATA

ENGLISH UNITS

State and Station	Elevation (ground)	Pressure		Temperature											Average relative humidity	Precipitation							Wind					No of days (sunrise to sunset)			Sky cover, tenths (sunrise to sunset)	Possible sunshine
												No of days							No of days		Snow, Sleet				Fastest mile							
		Station Ø	Sea level	Average maximum	Average minimum	Average	Departure from normal	Highest	Date	Lowest	Date	Max. 90 F. or above	Min. 32 F. or below	Average dew point		Total	Departure from normal	Greatest in 24 hours	01 inch or more	With thunderstorms	Total	Maximum depth on ground	Average speed	Prevailing direction	Speed	Direction	Date	Clear, 0-3	Partly cloudy, 4-7	Cloudy, 8-10		
	Ft.	Mb.	Mb.	F.	F.	F.	F.	F.		F.				F.	%	In.	In.	In.			In.	In.	M.p.h.		M.p.h.							%
OREGON																																
PORTLAND U	30			53	39	46.4	- 1.3	71	30	31	12+	0	2			4.79	0.01	1.24	20		1.1	T										
ROSEBURG	505	997.6		56	37	46.2	- 0.4	71	29	29	13	0	7			4.47	1.05	0.73	21	0	T	T	4.7	N#	29	SE	5	1	9	21	8.1	44
SALEM	195	1008.5	1015.9	53	35	43.9	- 1.9	69	29	23	13	0	14	37	80	5.65	0.97	1.49	20	0	2.6	T	9.0	S	30*	S	24+	5	4	22	7.5	
SEXTON SUMMIT R	3836	880.8		42	30	35.9	- 2.2	64	31	21	12	0	22			3.80	0.33	1.04	18	0	24.1	14	11.0	S				8	2	21	7.0	
PACIFIC AREA																																
CANTON ISLAND	8	1009.2	1009.6	88	78	82.9	- 0.2	90	22+	75	15+	3	0	73	75	0.79	-1.70	0.31	8	0	0.0	0	11.1	E	23*	ESE	29	14	12	5	4.5	
ENIWETOK	16	1010.2		86	78	81.8	0.5	87	21+	73	25	0	0	72	72	1.82	-0.04	0.53	13	0	0.0	0	20.5									
TAGUAC GUAM R	361			85	74	79.2	0.4	87	30	67	7	0	0			7.65	0.02	1.95	24	3	0.0	0	8.2	NNE	22	SE	2	0	1	30	9.8	54
KOROR R	94	1005.7	1009.5	86	75	80.6	- 0.1	88	30+	73	7+	0	0	75	85	3.88	-2.58	1.96	13	1	0.0	0	17.6	ENE	31*	E	26	6	12	13	6.3	
KWAJALEIN	8	1008.8	1009.7	87	77	82.1	1.6	88	26+	72	2	0	0	72	73	11.48	-0.24	3.17	25	0	0.0	0	13.6	ENE	33	NE	1	0	9	22	8.6	61
MAJURO	10	1009.3	1009.6	85	77	80.7	0.1	87	24+	73	31+	0	0	74	80	1.66	-0.98	1.20	11	0	0.0	0	9.3	E#	27	E	28					75
TRUK MOEN ISLAND	5	1008.7	1009.0	85	78	81.5	0.7	87	31+	72	12	0	0	74	78	12.77	5.02	5.17	15	3	0.0	0	8.4	NNE	22	SE	12+	1	3	27	8.9	38
WAKE ISLAND	11	1015.5	1015.9	82	72	77.4	- 0.4	85	31+	68	6	0	0	67	72	1.00	-0.47	0.24	15	0	0.0	0	15.7	ENE	31*	NE	6	13	16	2	4.4	
YAP R	55	1007.5	1009.5	86	76	81.0	0.0	87	30+	71	10	0	0	75	82	7.82	2.44	4.39	16	0	0.0	0	11.0	NE	33	NE	4	0	0	31	10.0	76
PENNSYLVANIA																																
ALLENTOWN	376	1001.4	1016.1	49	29	39.0	1.4	78	30	9	3+	0	20	25	56	3.14	-0.65	1.45	7	0	4.6	3	13.4	NW	36*	NNE	6	13	8	10	4.8	
ERIE	732	990.4	1017.4	40	27	33.3	- 0.3	76	29	4	2	0	25	25	76	1.17	-1.71	0.40	9	0	4.5	3	12.8	NE	43*	SE	12+	5	7	19	7.2	
HARRISBURG	335	1001.9	1016.2	49	29	39.3	- 1.0	80	30	10	2	0	17	24	51	2.70	-0.73	0.98	11	0	10.9	7	9.8	WNW	36	NE	6	8	10	13	5.7	67
PHILADELPHIA	5	1011.2	1015.4	50	31	40.5	- 0.5	77	30	10	4	0	17	25	55	3.91	0.11	1.63	7	0	7.2	4	12.8	N	48	NE	6	10	11	10	5.3	73
PHILADELPHIA U	35			53	35	44.0	0.5	78	30	12	2	0	8																			
PITTSBURGH	1151	986.3	1016.9	45	28	36.5	- 2.1	75	29	6	2	0	20	24	61	3.85	0.65	1.10	13	0	19.1	12	10.2	W	23*	SW	13+	4	6	21	7.7	47
PITTSBURGH U	749			47	32	39.3	- 2.3	76	29	8	2	0	16			3.90	0.49	1.04			11.4											34
READING U	266	1003.4	1015.5	50	33	41.7	0.4	78	30	12	2	0	13			3.43	-0.35	1.35	8	0	5.7	4	13.8	NW#	49	NE	6	12	8	11	5.2	72
SCRANTON	940	1015.4	1016.5	46	28	36.6	1.4	78	30	6	3	0	25	23	54	1.98	-0.84	0.99	9	0	2.8	1	9.6	NNW	36	SE	12	10	8	13	5.5	57
WILLIAMSPORT	527	998.0	1017.5	47	27	37.3	- 0.1	77	30+	7	4+	0	22	24	56	4.80	1.07	1.16	11	0	9.5	6	8.8	W	30*	E	11	9	9	13	5.8	
RHODE ISLAND																																
BLOCK ISLAND	110	1009.3	1013.8	42	31	36.4	- 0.8	53	31	9	2	0	15			2.52	-1.55	2.08	6	0	0.8	T						15	5	11	4.8	
PROVIDENCE	55	1008.0	1014.4	46	30	37.7	0.7	67	31+	7	3	0	18	25	57	1.93	-2.21	1.61	4	0	T	8	14.2	NNW	40*	NNE	7	10	11	10	5.2	67
SOUTH CAROLINA																																
CHARLESTON	41	1013.3	1015.4	64	43	53.2	- 3.5	77	30	27	8	0	5	41	70	7.88	3.95	1.85	13	3	T	T	10.1	NNE	43Y	SW	21	7	6	18	6.6	54
CHARLESTON U	9			61	47	53.8	- 3.7	74	31+	32	6	0	1			6.44	2.82	2.60	12		0.0	0	11.8		32	NE	2					
COLUMBIA	217	1002.7	1015.9	63	40	51.3	- 3.1	83	21	27	18	0	7	36	62	4.40	0.14	2.22	12	5	T	T	8.1	NE	29*	SW	21+	7	7	17	6.6	48
FLORENCE	146	1008.9	1014.9	62	41	51.3	- 3.4	78	31+	27	3	0	5	36	61	4.53	0.89	2.52	12	2	T	T	9.7	NNE	27*	SSE	31	6	8	17	6.7	
GREENVILLE	1009	977.4	1015.1	59	39	49.1	- 2.7	77	21	28	6	0	5	34	62	8.92	4.03	2.54	13	3	2.3	2	9.4	ENE	47	W	12	9	2	20	6.6	50
SPARTANBURG	801	985.1	1015.5	58	39	48.8	- 2.1	77	21	29	8+	0	8	33	60	9.79	5.19	3.23	11	2	1.2	1	9.5	NE	35*	SW	21	9	3	19	6.7	
SOUTH DAKOTA																																
HURON	1282	968.7	1018.2	27	14	20.7	- 9.0	42	27	-17	1	0	31	20	94	2.37	1.26	0.98	10	0	24.9	27	15.7	SSE	46	NW	31	4	5	22	8.0	42
RAPID CITY	3165	898.6	1016.7	40	18	28.6	- 2.5	73	27	-17	1	0	29	20	77	1.28	0.27	0.71	6	0	7.9	5	12.2	NNW	42	NW	31	7	7	17	6.8	67
SIOUX FALLS	1420	963.7	1017.3	32	17	24.6	- 5.5	55	27	-16	1	0	30	20	82	1.72	0.18	0.46	10	0	14.7	24	11.9	NW	31*	N	12+	7	2	22	7.6	
TENNESSEE																																
BRISTOL	1507	960.1	1015.3	54	36	44.7	- 0.8	73	29	23	6	0	12	32	65	3.36	-0.62	0.68	15	0	8.8	2	7.0	WSW	31*	SW	21	4	6	21	7.7	
CHATTANOOGA	670	991.4	1016.2	58	38	47.9	- 2.3	76	29	27	18	0	6	35	67	4.42	-1.22	1.04	12	3	T	T	9.5	S	42	W	21	8	4	19	7.0	45
KNOXVILLE	950	979.9	1016.0	56	38	46.8	- 2.3	76	29	27	18+	0	7	33	62	4.13	-0.60	0.97	14	2	1.9	1	9.2	NE	59	SW	21	6	4	21	7.5	54
MEMPHIS	263	1001.4	1016.7	56	38	47.3	- 4.3	75	24	25	7+	0	8	36	70	4.80	-0.27	2.01	9	2	T	T	9.7	NW	32	NW	5	11	4	16	5.8	60
MEMPHIS U	271			55	40	47.6	- 4.2	76	28	23	1	0	6			5.38	0.48	2.45	9													
NASHVILLE	577	995.6	1016.0	54	37	45.3	- 3.8	75	29	25	17+	0	9	36	74	5.89	0.70	1.79	12	3	1.4	1	9.5	NNW	37	W	21	5	4	22	7.6	38
OAK RIDGE	905	979.6		56	36	46.0	- 2.0	76	29	23	18	0	9			5.88	0.29	1.78	14	1	2.4	1	4.9		48Y		21	6	3	22	7.5	
TEXAS																																
ABILENE	1759	952.6	1014.8	66	40	53.0	- 2.0	89	28	10	1	0	10	30	48	1.20	0.16	0.62	5	2	5.7	6	12.1	S	42	W	11	12	7	12	5.0	61
AMARILLO	3607	885.5	1012.2	62	31	46.7	0.6	86	27	12	1	0	14	19	40	0.02	-0.80	0.02	1	0	T	0	16.2	WSW	56	N	24	13	10	8	4.6	75
AUSTIN	597	993.9	1016.2	69	47	57.9	- 1.8	82	27	23	1	0	2	39	56	1.19	-0.94	0.61	4	2	T	0	10.4	SSE	35	NW	11	12	4	15	5.5	60
BROWNSVILLE	16	1012.0	1014.8	76	57	66.5	- 1.4	87	22	37	1	0	0	56	72	1.12	0.08	1.11	2	0	0.0	0	13.6	SE	34	NW	14	8	4	19	6.7	46
CORPUS CHRISTI	43	1014.2	1015.7	74	52	63.0	- 2.2	89	20	32	1	0	1	50	67	0.41	-1.03	0.41	1	0	T	T	13.6	SE	34	S	28	9	6	16	6.4	58

See footnotes at end of table

CLIMATOLOGICAL DATA

ENGLISH UNITS

State and Station	Elevation (ground)	Pressure		Temperature											Average relative humidity	Precipitation							Wind					No. of days (sunrise to sunset)			Sky cover, tenths (sunrise to sunset)	Possible sunshine
												No. of days							No. of days		Snow, Sleet				Fastest mile							
		Station Ø	Sea level	Average maximum	Average minimum	Average	Departure from normal	Highest	Date	Lowest	Date	Max. 90 F. or above	Min. 32 F. or below	Average dew point		Total	Departure from normal	Greatest in 24 hours	.01 inch or more	With thunderstorms	Total	Maximum depth on ground	Average speed	Prevailing direction	Speed	Direction	Date	Clear, 0-3	Partly cloudy, 4-7	Cloudy, 8-10		
	Ft.	Mb.	Mb.	F.	F.	F.	F.	F.		F.				F.	%	In.	In.	In.			In.	In.	M.p.h.		M.p.h.							%
TEXAS																																
DALLAS	481	997.2	1016.3	65	43	54.2	- 1.9	82	28+	17	1	0	6	36	56	2.35	-0.50	1.68	5	2	2.0	2	12.7	S	38	W	11	12	7	12	5.1	65
DEL RIO U	957			74	49	61.4	- 1.5	91	29	29	1	1	2			0.17	-0.76	0.06	5	0	T	0										
EL PASO	3918	884.3	1013.2	64	38	50.9	- 4.0	81	27	22	15	0	7	19	34	0.24	-0.11	0.14	3	0	T	T	9.7	WSW	61	NW	23	14	6	11	4.8	79
FORT WORTH	544	994.9	1016.1	65	43	54.0	- 1.9	83	28	19	1	0	6	37	58	1.80	-0.71	1.19	5	2	2.5	2	14.8	S	41*	W	11	12	7	12	5.3	
GALVESTON U	7			65	55	60.3	- 1.1	76	21	33	1	0	0			1.59	-1.27	0.71	6	0	0.0	0	12.2		33	NE	14					72
GALVESTON	5	1013.9	1016.6	66	54	59.9	- 1.5	75	21	34	1	0	0	48	70	1.13	-1.90	0.53	9	0	0.0	0	10.7	SE				7	5	19	6.5	
HOUSTON U	41			71	54	62.7	0.3	86	9	34	1	0	0			1.42	-0.98	0.88	8	0	0.0	0										
HOUSTON	50	1013.6	1016.8	70	47	58.9	- 3.9	85	9	32	1	0	1	48	74	0.94	-1.73	0.72	8	2	0.0	0	11.0	SSE				7	4	20	6.7	57
LAREDO	500	999.1	1014.5	79	54	66.2	- 1.9	93	20	33	2	2	0	41	48	0.58	-0.04	0.49	3	1	0.0	0	11.4	SE	27*	NW	25	11	9	11	5.6	
LUBBOCK	3243	901.4	1014.3	63	33	47.6	- 2.0	84	28+	11	1	0	16	27	49	0.10	-0.63	0.05	3	0	0.1	T	17.7	WSW	52*	NNW	24	14	8	9	4.5	
MIDLAND	2854	913.7	1013.4	65	39	52.4	- 2.8	88	28	14	1	0	8	25	42	0.48	0.12	0.31	3	1	3.5	T	13.4	SSE	46*	NW	24	13	9	9	5.1	
PORT ARTHUR	16	1014.6	1016.2	70	46	58.1	- 2.5	83	9	32	16+	0	2	48	75	1.32	-2.12	0.80	7	2	0.0	0	10.4	N	35	S	20+	7	6	18	6.6	55
SAN ANGELO	1903	947.0	1014.9	69	40	54.5	- 2.0	90	28	13	1	1	8	30	45	0.40	-0.53	0.18	5	0	3.1	2	11.9	S	43*	NW	24	14	5	12	5.1	
SAN ANTONIO	792	990.8	1015.6	72	47	59.1	- 1.9	83	28+	28	1	0	2	41	57	0.91	-0.76	0.49	6	2	T	0	10.7	SSE	33	NW	24	12	3	16	5.6	58
VICTORIA	104	1011.2		72	49	60.5	- 2.7	83	24+	31	1	0	1			0.83	-1.49	0.59	3	1	0.0	0	11.8		44Y	NE	14	9	6	16	6.2	
WACO	500	994.8	1016.3	67	45	56.1	- 1.8	83	27	22	1	0	3	39	58	0.81	-1.54	0.60	4	1	1.0	1	15.3	SSE	46*	SW	24+	14	3	14	5.2	
WICHITA FALLS	994	977.2	1014.7	65	38	51.3	- 1.5	85	28	13	1	0	10	31	51	1.30	-0.24	0.72	3	2	0.0	0	11.8	S	31*	NW	11	13	9	9	4.6	
UTAH																																
MILFORD	5028	841.5		48	21	34.4	- 4.1	72	27	0	11	0	31			0.95	-0.08	0.27	12	1	12.5	3						5	13	13	6.4	
SALT LAKE CITY	4220	866.2	1017.2	46	24	35.1	- 5.3	70	27	9	13	0	29	25	71	2.34	0.78	0.83	10	0	25.3	9	10.5	S	34	S	2	7	9	15	6.3	67
WENDOVER	4237	868.9		48	28	37.8	- 3.7	70	27	17	1	0	23			0.35	-0.04	0.16	5	1	2.2	1						7	13	11	5.9	
VERMONT																																
BURLINGTON	331	1001.2	1016.4	39	19	29.0	- 0.2	72	30	- 7	3	0	29	20	56	1.86	-0.25	0.73	10	0	15.0	13	7.6	N	30	S	12	9	8	14	6.2	67
VIRGINIA																																
LYNCHBURG	947	990.1		51	34	42.7	- 2.8	75	30	17	3	0	14			5.17	1.56	1.27	11	3	23.2	16	9.2		34	SW	30	5	8	18	7.4	49
NORFOLK	26	1014.0	1015.5	52	36	43.7	- 4.3	77	30	24	2	0	10	33	68	4.32	0.87	1.46	10	1	1.2	1	12.2	NNE	41	NE	7	7	12	12	6.1	59
RICHMOND	162	1009.5	1016.0	55	35	45.0	- 1.7	83	30	18	4+	0	12	31	64	4.87	1.45	1.85	11	1	16.2	11	8.8	NNE	31	N	17	5	12	14	6.7	56
ROANOKE	1174	972.7	1015.8	53	34	43.5	- 2.0	77	30	16	3	0	13	27	58	4.76	1.23	1.24	10	2	11.3	6	9.9	SE	35*	SSW	30	5	8	18	7.3	
WASHINGTON																																
OLYMPIA	190	1008.1	1015.7	51	30	40.7	- 3.5	68	31+	20	12	0	21	34	81	3.82	-1.58	1.14	18	0	4.2	8	7.4	SW	29*	SW	24+	4	6	21	7.6	
SEATTLE TACOMA	400	1000.3	1014.8	51	36	43.3	- 0.5	67	30	29	28+	0	7	34	74	2.86	-0.93	0.77	19	0	1.7	7	10.5	S	32*	S	23	4	6	21	7.8	
SEATTLE	14		1015.0											36	77								4.8	SE								
SEATTLE U	14			51	39	45.3	- 1.1	70	30	32	3	0	1			3.43	0.11	0.86	18		2.2	6			50	S	23					41
SPOKANE	2357	945.1	1015.3	43	27	34.6	- 3.5	62	31	10	12	0	27	27	76	2.56	1.06	0.58	14	0	15.3	7	9.4	SW	35	SW	8	3	4	24	8.1	52
STAMPEDE PASS R	3958	875.4		35	24	29.4	- 0.6	59	31	13	3+	0	30			8.48	-2.12	1.90	20	0	93.1	118						3	4	24	8.2	
TATOOSH ISLAND	101	1011.2	1014.4	47	38	42.7	- 1.5	60	29	30	2	0	4	37	80	6.26	-2.08	1.31	19	0	9.1	7	16.5	ENE	52	W	8	2	8	21	7.8	46
WALLA WALLA U	949	978.3		52	35	43.5	- 2.5	68	31	25	1	0	13			2.36	0.77	0.66	13	1	1.8	3	5.5	W#	29	W	8	5	7	19	7.3	42
YAKIMA	1061	975.6	1015.3	52	28	40.0	- 2.0	69	31	14	2+	0	23	27	66	0.65	0.03	0.30	6	0	2.8	2	7.2	WNW	40*	NW	8	5	11	15	7.0	
WEST INDIES																																
SAN JUAN P.R. U	47			82	70	76.4	0.4	92	7	67	23+	3	0			2.31	0.24	1.88	6	1	0.0	0										
SAN JUAN P.R.	15	1012.6	1015.6	84	68	75.7	0.4	92	7	61	23	3	0	66	75	0.97	-1.23	0.45	7	1	0.0	0	7.4	ENE	28Y	NE	31	14	11	6	5.0	55
SWAN ISLAND	28	1011.7		84	75	79.3	- 0.7	86	30+	70	8	0	0			1.31	0.68	0.55	5		0.0	0						9	20	2	4.9	
WEST VIRGINIA																																
CHARLESTON	939	979.3	1015.4	53	35	43.6	- 0.8	77	29	18	2	0	13	29	62	3.91	-0.43	1.27	12	1	8.5	7	7.3	WSW	22*	SW	21	3	6	22	7.9	
HUNTINGTON U	827	984.9	1016.3	50	33	41.8	- 3.7	77	29	14	2	0	14	36	68	4.57	0.41	1.41	14	2	5.0	2	7.4	NE	22*	SW	21	5	4	22	8.0	
PARKERSBURG U	621			51	32	41.7	- 1.0	79	29	11	2	0	15			4.98	1.45	1.47	15	3	5.2	4	7.1		22	W	13					43
WISCONSIN																																
GREEN BAY	682	994.9	1018.6	35	20	27.3	- 0.4	58	28	-29	1	0	30	21	77	1.13	-0.21	0.50	13	1	6.7	19	7.7	NE	25	NE	11	6	7	18	6.9	45
LA CROSSE	652	992.2		38	21	29.2	- 1.3	66	28	-28	1	0	30	22	76	1.92	-0.15	0.94	10	1	20.9	22	8.9	SE	28*	NW	29	5	6	20	7.5	
MADISON	858	980.8	1017.5	37	22	29.5	- 0.1	70	28	-29	1	0	29	23	76	1.73	-0.11	0.88	6	1	7.0	16	9.9	WNW	33	S	28	3	7	21	7.9	50
MILWAUKEE	670	992.6	1018.5	36	24	30.3	- 0.7	67	28	-10	1	0	28	26	83	1.69	-0.62	0.63	10	1	11.4	14	11.2	NNE	37	S	28	5	3	23	7.9	40

See footnotes at end of table

CLIMATOLOGICAL DATA

ENGLISH UNITS

State and Station	Elevation (ground)	Pressure		Temperature											Average relative humidity	Precipitation							Wind					No of days (sunrise to sunset)			Sky cover tenths (sunrise to sunset)	Possible sunshine
												No of days							No of days		Snow, Sleet				Fastest mile							
		Station Ø	Sea level	Average maximum	Average minimum	Average	Departure from normal	Highest	Date	Lowest	Date	Max. 90 F. or above	Min. 32 F or below	Average dew point		Total	Departure from normal	Greatest in 24 hours	.01 inch or more	With thunderstorms	Total	Maximum depth on ground	Average speed	Prevailing direction	Speed	Direction	Date	Clear, 0-3	Partly cloudy, 4-7	Cloudy, 8-10		
	Ft.	Mb.	Mb.	F	F.	F.	F.	F.		F.				F.	%	In.	In.	In.			In	In	M p.h		M p.h							%
WYOMING																																
CASPER	5319	833.1	1014.4	41	19	30.3	- 1.8	64	27	- 3	13	0	29	18	65	0.55	-0.48	0.19	9	0	8.0	3	15.1	SW	39*	SW	27	7	12	12	6.2	
CHEYENNE	6126	808.0	1014.9	40	18	29.0	- 2.9	64	27	4	13+	0	30	14	57	0.39	-0.82	0.16	8	0	5.5	4	14.9	WNW	46	NW	25	10	9	12	5.7	65
LANDER	5563	830.7		43	20	31.3	- 0.9	65	27	3	1	0	30	15	52	0.54	-0.61	0.31	6	0	8.7	4	7.6	SW#	43	SW	2	7	16	8	5.7	81
SHERIDAN	3942	881.8	1011.9	40	17	28.5	- 2.5	69	27	- 8	3+	0	30	19	69	0.66	-0.76	0.43	6	0	7.1	4	7.3	NW	42	NW	30	4	10	17	6.8	68

Data from airport unless otherwise specified. U indicates Urban, R indicates Rural, sites.

* Data entered in column "Fastest Mile" is the fastest mile observed. This station is not equipped with automatic wind recording instrument.

Ø Station pressures apply to elevations shown in the "Elevations - Station Pressure" table of the annual issue of this publication.

A Maximum hourly average.

+ And also on an earlier date or dates.

B Number of days maximum 70°F. or above for Alaskan Stations.

# Wind direction to 8 compass points only.

Y Peak Gust.

CLIMATOLOGICAL DATA

METRIC UNITS

State and Station	Elevation (ground)	Pressure		Temperature								No of days			Average relative humidity	Precipitation							Wind					No of days (sunrise to sunset)				
																			No of days		Snow, Sleet				Fastest mile (1 6 kilometers)							
		Station O	Sea level	Average maximum	Average minimum	Average	Departure from normal	Highest	Date	Lowest	Date	Max 32 2 °C or above	Min 0 C or lower	Average dew point		Total	Departure from normal	Greatest in 24 hours	25 mm or more	With thunderstorms	Total	Maximum depth on ground	Average speed	Prevailing direction	Speed	Direction	Date	Clear, 0-3	Partly cloudy, 4-7	Cloudy, 8-10	Sky cover, tenths (sunrise to sunset)	Possible sunshine
	M.	Mb.	Mb.	C.	C.	C.	C	C.		C.				C.	%	Mm.	Mm.	Mm.			Mm.	Mm.	M p.s.		M.p.s.							%
ALABAMA																																
BIRMINGHAM	186	990.7	1016.5	17.2	5.0	11.2	-0.8	26.1	30	- 3.3	6+	0	4	3.9	66	132	- 20	41	9	4	T	T	5.2	NNW	17.9	W	21	8	5	18	6.8	47
HUNTSVILLE	184	992.5	1016.3	14.4	3.3	8.9	-2.1	24.4	30+	- 3.9	6+	0	9	2.2	68	159	18	43	9	5	T	T	4.2	ESE	12.5*	SSW	12	7	4	20	7.0	
MOBILE	64	1014.2	1016.7	20.0	7.8	13.9	-1.3	30.0	21	- 1.7	6	0	3	6.7	67	177	- 7	111	12	4	0	0	5.7	N	17.9*	W	31	9	6	16	6.2	
MONTGOMERY	59	1008.0	1016.5	18.3	6.7	12.4	-0.9	27.2	21	- 1.7	6	0	3	5.6	66	189	33	70	11	5	T	T	4.0	NW	13.0	NW	5	8	7	16	6.3	58
ALASKA												B																				
ANCHORAGE	27	1006.1	1011.2	- 1.7	-11.7	- 6.7	-1.9	7.8	31	-22.2	23	0	29	-12.2	68	15	2	6	8	0	361	279	2.5	NNW	13.9*	N	11	10	5	16	6.1	57
ANNETTE	34	1010.5	1014.6	5.0	- 1.1	2.1	-1.2	12.8	31	- 9.4	3	0	20	- 4.4	66	154	- 88	42	14	0	180	25	4.4	SSE	14.3*	NNW	8	5	7	19	7.3	
BARROW	7	1024.0	1024.6	-21.7	-28.9	-25.3	0.6	- 7.8	1	-42.8	26	0	31	-30.0	66	6	3	4	8	0	79	762	5.0	NE	13.9*	ESE	2	14	9	8	4.7	
BARTER ISLAND	12	1021.0	1023.0	-21.7	-29.4	-25.4	0.6	0.6	29	-41.1	26	0	31	-30.0	63	2	- 3	1	6	0	20	559	7.4	W	24.1*	E	2	10	8	13	5.6	
BETHEL	38	1009.1	1010.6	- 5.0	-13.9	- 9.3	2.0	5.6	31	-26.1	25+	0	31	-12.2	78	11	- 15	4	10	0	157	152	7.3	SSW	20.6*	NE	11	9	6	16	6.2	
COLD BAY	29	1004.7	1008.4	1.7	- 2.8	- 0.4	1.5	6.7	10	- 7.2	17	0	25	- 2.8	84	53	9	19	17	0	117	51	7.2	SSE	19.7*	WSW	26+	0	4	27	9.0	
CORDOVA	12	1008.8	1010.4	1.7	- 9.4	- 3.8	-2.2	6.1	30	-20.6	26	0	29	- 6.7	80	146	49	26	16	0	1770	991	2.7	ESE	11.2*	ESE	17	9	3	19	6.7	
FAIRBANKS	133	997.0	1015.2	- 5.6	-21.1	-13.3	-0.5	9.4	31	-37.8	14	0	31	-18.3	67	17	7	7	8	0	320	813	2.9	N	11.2*	NNE	10	13	3	15	5.6	
JUNEAU	5	1012.2	1013.3	2.2	- 5.0	- 1.4	-0.6	10.0	29	-17.2	4	0	28	- 5.6	75	127	44	24	15	0	950	279	4.2	ESE	13.9*	ESE	25+	6	4	21	7.6	42
KING SALMON	13	1008.1	1010.0	- 2.8	-14.4	- 8.9	-1.9	6.1	31	-31.7	16	0	29	-11.7	79	38	14	14	14	0	411	254	5.1	N	20.6*	E	31	10	6	15	5.9	
KOTZEBUE	3	1015.1	1015.8	-11.1	-21.1	-16.1	2.8	1.7	31	-33.3	25	0	31	-19.4	73	13	6	4	12	0	366	635	4.3	ESE	15.6*	S	1	11	1	19	6.2	
MC GRATH	102	1000.7	1013.9	- 5.0	-18.3	-11.7	1.5	10.6	31	-39.4	13	0	30	-16.7	65	11	- 12	3	11	0	290	686	2.5	N	10.3*	SSW	8	11	4	16	6.2	
NOME	4	1011.7	1012.4	- 6.1	-15.6	-10.7	2.7	2.2	31	-28.3	24	0	31	-13.9	75	21	- 1	6	14	0	224	914	6.4	NE	17.0*	NE	27	12	3	16	5.8	42
ST. PAUL ISLAND	7	1005.3	1006.4	- 1.1	- 5.6	- 3.2	1.1	3.3	5+	-13.9	24	0	30	- 5.0	85	43	16	21	15	0	193	51	8.5	NE	21.5*	NE	19	1	3	27	8.9	
SHEMYA	37	996.6	1000.4	2.2	- 1.1	0.6	0.1	5.0	8	- 3.3	9+	0	25	- 1.7	85	57	- 9	10	25	0	345	76	9.0	SW	21.5*	SE	3	0	7	24	8.7	
YAKUTAT	9	1010.2	1011.5	2.8	- 8.3	- 2.8	-2.5	7.2	30	-19.4	23	0	29	- 4.4	85	320	99	90	20	0	1651	762	3.0	ESE	11.6*	SE	16	6	4	21	7.6	
ARIZONA																																
FLAGSTAFF	2131	786.7	1017.8	6.7	-10.6	- 2.2	-4.2	17.8	26	-22.8	13	0	31	- 9.4	61	33	- 4	12	7	2	330	356	3.3	SW	11.6*	S	9	13	7	11	4.9	
PHOENIX	338	975.3	1014.8	21.7	5.0	13.3	-2.5	31.7	26	- 0.6	15	0	1	- 1.7	41	13	- 4	10	3	1	0	0	2.8	SE	12.5*	WSW	19	16	8	7	3.7	86
PRESCOTT	1528	844.9	1015.4	12.8	- 3.3	4.8	-2.7	23.9	26	-10.0	1	0	25	- 7.8	48	19	1	8	7	0	127	76	3.7	S	23.2	SW	23	15	6	10	4.3	82
TUCSON	788	925.2	1013.9	19.4	3.9	11.8	-2.3	30.6	26	- 2.8	14	0	6	- 5.0	37	6	- 7	3	5	0	0	0	4.3	SSE	14.8	W	23+	15	6	10	4.5	86
WINSLOW	1487	849.6	1014.3	13.9	- 3.3	5.4	-2.4	25.6	27	- 8.9	14	0	23	- 7.2	48	12	2	8	6	0	79	76	5.2	SW	14.3*	SSW	19+	14	10	7	4.2	
YUMA	61	1009.5	1015.0	24.4	8.3	16.3	-2.6	35.0	26	0.6	1	2	0	- 1.1	36	4	- 2	3	2	0	0	0	3.6	WNW	12.1	N	13	20	7	4	3.0	94
ARKANSAS																																
FORT SMITH	137	999.2	1016.5	15.6	2.8	9.2	-1.4	28.3	28	- 8.3	1	0	10	1.1	63	68	- 20	24	6	3	0	0	4.0	ENE	15.2	SW	11	11	5	15	5.7	57
LITTLE ROCK	78	1003.2	1016.8	15.6	3.9	9.7	-1.3	27.2	28	- 6.7	1	0	6	1.7	63	131	9	46	7	4	T	T	4.5	ESE	17.9	SW	11	13	5	13	5.4	58
TEXARKANA	110			16.7	5.6	11.2	-1.6	25.6	28	- 4.4	1	0	5	4.4	68	82	- 39	33	10	5	3	0	4.0	NW								
CALIFORNIA																																
BAKERSFIELD	151	1000.3	1018.8	18.3	5.6	11.9	-1.9	25.0	27	1.1	1	0	0	5.0	66	8	- 19	6	3	1	0	0	3.1	NNW	16.5*	SSE	5	5	14	12	5.9	
BISHOP	1252	872.0		14.4	- 2.8	5.8	-2.6	25.0	27	-10.0	1	0	25			8	- 6	5	4	0	10	T						11	12	8	4.9	
BLUE CANYON	1609	837.8		5.0	- 1.7	1.6	-2.3	15.0	28	- 7.2	9	0	23			224	9	55	15	0	1527	2184	3.8	SW	18.3	SSW	22+	7	3	21	7.2	
BURBANK	213	990.9	1017.4	18.3	6.7	12.3	-2.1	27.2	25	1.7	1	0	0	3.9	62	31	- 23	13	6	0	0	0	3.4	S	13.0*	NW	23	12	7	12	5.1	
EUREKA U	13	1015.6		11.7	6.1	8.9	-0.3	16.7	26	0.6	12	0	0			103	- 31	23	17	1	0	0	3.6	S#	13.9	SE	4	2	6	23	8.4	42
FRESNO	99	1005.4	1017.4	17.8	4.4	11.2	-1.3	24.4	27	0.6	3+	0	0	4.4	68	26	- 23	13	5	1	0	0	2.6	NW	14.8	NW	9	11	9	11	5.0	81
LONG BEACH	10	1016.3	1017.8	17.2	7.2	12.0	-1.8	23.3	25	2.2	10	0	0	6.1	71	40	5	23	6	0	0	0	3.0	W	13.0*	W	9	13	9	9	5.0	
LOS ANGELES	30	1014.2	1017.9	16.1	7.8	12.0	-1.3	21.1	26	3.9	10	0	0	7.2	74	28	- 17	14	5	0	0	0	3.4	WSW	16.5*	W	9	14	9	8	4.8	
LOS ANGELES U	95			17.2	8.3	12.9	-2.3	25.6	26	5.0	10+	0	0	5.0	63	28	- 29	12	5	0	0	0	3.0	W#	14.8	W	9	13	8	10	4.8	71
MT SHASTA R	1080	889.6		8.9	- 1.7	3.6	-1.5	20.0	31	- 8.3	13	0	26			100	- 13	52	13	0	780	254						8	4	19	6.7	
OAKLAND	1	1018.0	1018.2	15.0	7.2	11.1	-0.9	20.6	18	3.3	13+	0	0	5.0	68	51	- 11	27	10	0	0	0	4.6	WNW	13.4*	SSE	5	10	7	14	6.1	
POINT ARGUELLO	112	1004.4		13.3	5.6	9.5	-1.6	20.6	4	- 0.6	1	0	2			44	- 6	28	13	1	0	0	4.4		16.5*	NW	9	9	10	12	5.8	
RED BLUFF	104	1003.7	1016.7	16.1	5.0	10.5	-1.8	24.4	28	0.6	13	0	0	3.3	65	56	- 13	40	9	0	0	0	4.2	SSE	16.1	SE	22+	8	4	19	6.7	69
SACRAMENTO	5	1016.6	1017.8	16.7	4.4	10.6	-1.8	22.8	27	0.6	10	0	0	5.6	76	43	- 17	22	6	1	0	0	3.4	SW	14.8	E	5	7	10	14	6.2	69
SACRAMENTO U	7			17.2	6.1	11.4	-1.4	24.4	27	2.8	23	0	0			47	- 16	27	5		0	0										
SANDBERG R	1377	861.5		7.8	0.6	4.2	-3.1	20.6	27	- 3.9	11	0	19			21	- 16	7	7	0	104	51	6.1	N	17.9*	NW	29	11	9	11	5.3	
SAN DIEGO	4	1014.2	1017.6	17.8	8.9	13.2	-1.6	22.2	4	6.1	15+	0	0	6.1	67	16	- 24	8	8	0	0	0	3.1	NW	10.7	W	9	14	5	12	4.9	62
SAN FRANCISCO	2	1018.0	1018.7	13.9	6.7	10.3	-1.6	18.3	18	2.8	13	0	0	6.1	77	76	7	37	10	0	0	0	4.4	WNW	18.3	WNW	9	8	8	15	6.2	
SAN FRANCISCO U	16			14.4	8.9	11.5	-1.1	19.4	27	7.2	13+	0	0			70	- 4	35	12	0	0	0	4.0	W#	13.9	SE	5					62
SANTA MARIA	73	1009.8	1018.8	15.6	4.4	9.9	-1.9	21.1	4	- 0.6	1	0	1	6.1	79	31	- 21	15	10	1	0	0	3.6	WNW	17.9*	SE	5	11	8	12	5.3	
COLORADO																																
ALAMOSA	2297	766.3		6.7	-12.8	- 2.9	-2.9	17.8	27+	-23.3	31+	0	31			29	23	27	6	0	409	356						11	12	8	5.0	
COLORADO SPRINGS	1882	806.6	1016.5	8.3	- 6.1	0.9	-1.2	21.7	27	-15.0	14+	0	31	- 8.9	55	22	7	12	4	1	224	102	3.9	N	13.0*	NW	24	11	13	7	5.1	
DENVER	1610	833.4	1014.6	8.3	- 5.6	1.4	-1.8	22.2	27	-20.0	1	0	29	- 9.4	51	13	- 18	5	7	0	173	102	3.8	SSW	17.0	NE	28	5	16	10	5.7	70
GRAND JUNCTION	1478	857.1	1015.4	10.0	- 2.8	3.6	-1.7	22.2	27	-10.6	1	0	25	- 8.3	46	7	- 12	2	5	1	76	51	2.8	ESE	14.8	NW	28	8	10	13	6.2	72

See footnotes at end of table

CLIMATOLOGICAL DATA

METRIC UNITS

State and Station	Elevation (ground)	Pressure		Temperature											Average relative humidity	Precipitation							Wind					No of days (sunrise to sunset)			Sky cover, tenths (sunrise to sunset)	Possible sunshine
												No of days							No of days		Snow, Sleet				Fastest mile (1 6 kilometers)							
		Station ⊘	Sea level	Average maximum	Average minimum	Average	Departure from normal	Highest	Date	Lowest	Date	Max. 32 2 °C or above	Min. 0 °C or lower	Average dew point		Total	Departure from normal	Greatest in 24 hours	25 mm or more	With thunderstorms	Total	Maximum depth on ground	Average speed	Prevailing direction	Speed	Direction	Date	Clear, 0-3	Partly cloudy, 4-7	Cloudy, 8 10		
	M	Mb	Mb	C.	C.	C.	C.	C.		C.				C.	%	Mm.	Mm.	Mm.			Mm	Mm.	M.p.s.		M.p.s							%
COLORADO																																
PUEBLO	1414	852.7	1013.9	11.7	- 6.1	2.7	-1.8	25.6	27	-20.6	1	0	30	- 7.8	52	24	11	17	3	0	302	203	4.1	W	23.2	N	28	11	15	5	4.6	82
CONNECTICUT																																
BRIDGEPORT	2	1015.1	1015.9	7.8	- 1.1	3.4	0.4	17.2	30	-13.3	3+	0	16	- 3.3	58	32	- 76	25	4	0	10	51	7.2	NNW	19.7*	ENE	6	13	10	8	5.9	
HARTFORD	52	1008.6	1014.9	7.8	- 2.2	2.9	0.8	23.9	30	-15.6	2	0	18	- 3.9	56	48	- 49	41	4	0	18	229	4.9	NW	17.4	NE	6	13	7	11	4.8	71
NEW HAVEN	2	1014.9		8.3	- 1.1	3.4	0.7	18.3	31+	-13.3	3	0	17			39	- 78	27	5	0	18	102	4.7		16.1	NE	7+	12	11	8	4.5	72
DELAWARE																																
WILMINGTON	24	1012.3	1015.7	10.6	- 0.6	5.1	-0.1	25.6	30	-11.7	4	0	17	- 2.8	61	109	7	45	9	0	132	51	5.9	WNW	17.9*	ENE	6	10	11	10	5.3	
DIST.OF COLUMBIA																																
WASHINGTON U	22			12.2	3.3	7.8	0.2	26.1	30	- 8.3	2	0	7			92	7	29	10													
WASH NATL AP	4	1011.8	1016.3	11.7	2.2	6.8	-0.3	26.1	30	- 8.9	2	0	9	- 3.3	51	97	16	33	9	2	102	51	4.6	N	17.0	ENE	6	8	11	12	6.0	65
FLORIDA																																
APALACHICOLA U	4	1013.9		19.4	11.1	15.1	-1.1	24.4	25	- 1.1	6	0	1			74	- 41	21	7	4	0	0	4.4		13.4	NW	5	9	10	12	5.8	74
DAYTONA BEACH	9	1014.3	1016.1	21.7	10.0	15.9	-1.8	30.6	11	0.0	6	0	1	10.6	73	46	- 44	24	12	6	0	0	4.7	NW	13.9*	WNW	6	11	6	14	6.0	
FORT MYERS	4	1014.8		26.1	13.9	20.1	0.0	30.6	31+	3.9	8	0	0			67	1	49	6	3	0	0	4.9		14.3*	N	23	12	11	8	5.0	
JACKSONVILLE	7	1015.1	1016.4	21.1	9.4	15.3	-1.4	28.9	12	- 1.1	6	0	1	7.8	67	79	- 10	28	9	1	0	0	4.8	NW	18.8	SW	21	11	7	13	5.5	51
KEY WEST	2	1014.4	1015.8	25.6	20.6	23.1	0.6	29.4	22	15.0	8	0	0	17.2	71	23	- 22	20	5	1	0	0	5.8	SE	16.1	NW	6	11	14	6	4.7	80
LAKELAND U	65			23.3	12.2	17.7	-1.4	30.0	31+	1.7	6	0	0			92	- 16	54	8	4	0	0	3.9					11	7	13	5.6	59
MIAMI BEACH	3			25.6	18.9	22.2	0.2	32.2	22	8.3	8	1	0			64	15	24	7		0	0	4.2		14.3	NW	6	12	14	5	4.4	81
MIAMI	2	1013.7	1015.1	26.1	16.1	21.2	-0.2	31.7	22+	5.6	8	0	0	14.4	68	71	13	26	6	2	0	0	5.2	ESE	13.9*	WNW	6	8	16	7	5.1	
ORLANDO	32	1011.5	1016.1	23.9	11.7	17.6	-0.7	31.7	11	0.6	6	0	0	10.6	69	90	4	42	7	3	0	0	5.0	WNW	13.0*	WNW	6+	11	6	14	5.5	
PENSACOLA U	4			18.9	9.4	14.3	-1.4	26.7	21	- 1.7	6	0	1			95	- 66	40	10	3	0	0	5.0		14.8	W	5					65
TALLAHASSEE	18	1013.8	1016.5	20.6	7.8	14.1	-1.8	27.8	21	- 1.7	6	0	3	9.4	77	271	139	182	11	3	0	0	5.4	S	13.9*	NNW	5	10	6	15	6.2	
TAMPA	6	1014.2	1016.3	22.8	12.8	17.7	-1.2	28.9	30	3.9	8	0	0	11.1	70	108	13	48	8	5	0	0	5.7	S	18.3*	NW	6	8	9	14	5.9	63
WEST PALM BEACH	5	1014.4	1015.5	26.1	15.0	20.6	-0.4	33.3	22	5.0	8	3	0	13.9	68	113	25	91	6	3	0	0	5.3	WNW	18.8*	NNW	25	8	15	8	5.4	
GEORGIA																																
ATHENS	245	986.4	1016.0	15.0	3.9	9.3	-1.6	25.6	21	- 3.3	6	0	7	2.2	66	168	39	45	13	6	T	T	4.6	NE	13.0*	WSW	21+	10	4	17	6.6	
ATLANTA	297	973.8	1016.4	14.4	3.3	8.8	-2.3	23.9	21	- 3.9	6+	0	7	2.2	68	171	34	48	12	5	T	T	4.8	NW	13.0*	W	21	9	5	17	6.4	54
AUGUSTA	44	1008.8	1015.8	17.2	5.0	11.1	-1.7	28.3	21	- 2.2	7	0	5	4.4	68	135	29	39	12	4	T	T	3.8	WNW	13.4*	NW	6	9	4	18	6.8	
COLUMBUS	117	1002.0		17.2	5.0	11.3	-1.7	27.2	21	- 3.3	6	0	4			216	63	73	13	4	T	T	5.1		17.9*	WSW	21	11	3	17	6.4	
MACON	109	1002.0	1015.9	17.8	6.1	11.8	-2.1	28.9	21	- 2.2	6	0	5	3.9	64	246	121	68	13	4	T	T	5.2	NW	16.1	NW	6	11	4	16	6.2	59
ROME	194	992.7		14.4	2.8	8.6	-1.6	23.9	29	- 3.3	6	0	8			161	12	54	11	6	T	T						11	3	17	6.5	
SAVANNAH	15	1013.8	1016.5	18.9	6.7	12.8	-1.8	29.4	21	- 2.2	6	0	3	7.8	76	150	49	69	12	2	0	0	4.7	WNW	14.8	SW	21	8	7	16	6.5	63
THOMASVILLE U	86			19.4	8.3	14.1	-1.7	27.8	30+	- 3.3	6	0	3			106	- 28	35	7	2	0	0						11	7	13	5.6	
HAWAII																																
HILO	9	1015.2	1017.3	25.6	17.2	21.5	0.1	27.8	17+	15.0	5	0	0	17.2	80	276	- 97	88	28	0	0	0	4.0	WSW	13.9*	SE	14	3	6	22	7.7	38
HONOLULU	2	1016.6	1016.9	26.1	19.4	22.9	0.2	28.9	15	16.7	2	0	0	17.2	72	53	- 20	26	10	1	0	0	5.9	ENE	15.6	S	14	7	11	13	6.6	47
LIHUE	35	1012.2	1017.5	25.6	18.9	22.2	0.5	28.3	16	13.9	10	0	0	16.7	73	332	216	162	20	4	0	0	5.8	NE	15.6	SW	13	2	11	18	7.7	52
IDAHO																																
BOISE	865	918.4	1016.1	9.4	- 1.7	3.7	-1.4	20.0	26	- 7.2	2	0	24	- 2.8	66	32	- 1	12	10	0	94	51	4.4	SE	12.1	NW	27+	8	4	19	6.8	70
IDAHO FALLS 42NW R	1460			1.7	-11.7	- 5.0	-3.5	10.6	31+	-28.9	13	0	31			27	15	12	5													
IDAHO FALLS 46W R	1504	845.6		3.3	-10.0	- 3.3	-2.2	12.8	26	-22.8	12	0	30			15	- 1	5	6	0	173	127	3.6	WSW	12.1A	SSW	1					
LEWISTON	431	963.4		10.6	0.0	5.3	-0.6	19.4	31	- 7.2	2	0	17			36	6	21	13	0	58	T						5	1	25	8.2	
POCATELLO	1355	860.8	1017.7	5.6	- 5.0	0.2	-1.9	16.7	26	-15.6	13	0	29	- 4.4	75	32	6	11	11	0	391	203	5.0	S	15.6	SW	3	6	4	21	7.3	62
ILLINOIS																																
CAIRO U	96	1003.2		11.1	2.8	6.9	-2.1	23.3	28	- 7.2	1	0	6			123	2	36	12	3	3	T	4.6	N#	15.6	S	29	6	6	19	7.1	49
CHICAGO O HARE	201	991.5	1017.1	4.4	- 2.8	0.8		20.6	28	-22.2	1	0	23	- 2.8	78	34		9	12	0	145	102	5.6	ESE	13.9*	ENE	21	3	4	24	8.2	
CHICAGO MIDWAY	186	993.4	1017.0	5.0	- 2.2	1.4	-0.9	22.2	29+	-20.6	1	0	20	- 3.3	72	46	- 23	8	14	0	178	76	5.3	E	15.2	S	28	2	7	22	8.0	44
MOLINE	177	993.9	1017.2	5.0	- 3.9	0.3	-1.8	23.9	28	-25.0	1	0	21	- 3.9	74	61	1	17	13	1	180	178	4.5	WNW	13.0	NE	20	3	7	21	7.7	51
PEORIA	199	994.2	1017.4	5.6	- 3.3	0.9	-2.2	22.8	28	-21.7	1	0	23	- 3.3	76	55	- 18	24	12	3	51	25	5.4	ENE	15.2	NE	20	4	4	23	7.8	40
ROCKFORD	222	989.1	1017.2	3.3	- 4.4	- 0.3	-1.4	21.7	28	-23.9	1	0	28	- 3.9	79	81	18	37	11	1	201	127	5.0	ENE	13.9*	SSW	28	2	8	21	8.0	
SPRINGFIELD	179	992.5	1016.6	7.8	- 1.7	2.8	-1.4	23.9	28	-17.8	1	0	21	- 2.2	73	90	17	51	12	3	66	25	5.6	ENE	18.8	NE	20	5	7	19	7.5	44
INDIANA																																
EVANSVILLE	116	1000.1	1016.4	10.6	1.7	6.2	-0.6	23.9	29+	- 8.3	1	0	10	0.6	70	114	5	36	14	5	13	T	4.2	NW	13.4	NW	5	5	5	21	7.6	44
FORT WAYNE	241	985.0	1017.3	5.6	- 1.1	2.1	0.0	24.4	29	-12.8	1	0	16	- 2.2	76	45	- 25	13	13	1	145	76	5.8	ENE	17.4	NE	21	3	6	22	7.9	48

See footnotes at end of table

CLIMATOLOGICAL DATA

METRIC UNITS

State and Station	Elevation (ground)	Pressure		Temperature											Average relative humidity	Precipitation							Wind					No. of days (sunrise to sunset)			Sky cover, tenths (sunrise to sunset)	Possible sunshine
		Station Ø	Sea level	Average maximum	Average minimum	Average	Departure from normal	Highest	Date	Lowest	Date	No. of days: Max 32.2 °C or above	No. of days: Min. 0 C or lower	Average dew point		Total	Departure from normal	Greatest in 24 hours	No. of days: 25 mm. or more	No. of days: With thunderstorms	Snow, Sleet: Total	Snow, Sleet: Maximum depth on ground	Average speed	Prevailing direction	Fastest mile (1.6 kilometers): Speed	Fastest mile (1.6 kilometers): Direction	Fastest mile (1.6 kilometers): Date	Clear, 0-3	Partly cloudy, 4-7	Cloudy, 8-10		
	M.	Mb.	Mb.	C.	C.	C.	C.	C.		C.				C.	%	Mm.	Mm.	Mm.			Mm.	Mm.	M.p.s.		M.p.s.							%
INDIANA																																
INDIANAPOLIS	242	984.0	1016.6	7.2	-0.6	3.2	-0.7	22.8	29	-13.3	1	0	15	-1.7	73	102	15	54	12	1	43	25	4.3	E	13.0*	SW	11	1	6	24	8.6	48
SOUTH BEND	234	987.9	1016.9	5.0	-2.8	1.1	-0.5	23.9	29	-16.1	2	0	20	-3.3	76	46	-23	8	12	1	234	127	5.5	E	13.0*	NNE	21	4	7	20	7.8	
IOWA																																
BURLINGTON	212	990.5	1017.2	5.6	-3.9	0.8	-2.2	25.0	28	-23.9	1	0	27	-3.3	76	46	-23	18	11	3	145	152	5.5	ENE	13.9	SW	28	4	5	22	7.7	51
DES MOINES	289	985.1	1018.1	3.3	-5.6	-1.2	-2.9	24.4	28	-30.0	1	0	26	-4.4	79	36	-17	16	11	3	282	457	4.2	E	13.9	NW	13	5	10	16	6.8	53
DUBUQUE	325	991.3		2.8	-6.1	-1.7	-1.6	21.1	28	-28.9	1	0	30			99	29	35	9	1	338	584						3	9	19	7.6	
SIOUX CITY	334	974.7	1017.8	0.6	-7.2	-3.6	-4.4	16.1	27	-26.1	1	0	26	-5.0	89	81	44	33	15	0	665	711	4.9	NW	20.1	NW	12	6	6	19	7.3	48
WATERLOO	265	984.6	1017.8	1.1	-7.8	-3.3	-3.6	22.8	28	-36.7	1	0	29	-5.0	87	54	2	15	11	1	259	508	4.7	ESE	11.2*	NW	13+	6	7	18	7.2	
KANSAS																																
CONCORDIA U	419	965.0		7.8	-2.8	2.6	-2.0	25.0	28	-18.3	1	0	18	-2.8	69	54	17	26	5	0	23	25	4.2	NW#	14.8	NW	12	8	9	14	6.0	59
DODGE CITY	791	924.5	1014.1	12.8	-2.8	4.9	-0.5	27.8	28	-14.4	1	0	20	-4.4	60	34	5	32	6	2	10	T	5.4	SSE	20.1	N	29+	16	5	10	4.7	76
GOODLAND	1111	884.7	1014.2	10.6	-7.2	1.8	-0.7	25.0	28+	-18.3	1	0	29	-7.2	61	21	-6	20	3	3	119	76	6.3	NNW	21.0*	NNE	28	13	7	11	4.9	
TOPEKA	267	979.4	1016.3	10.0	-2.2	3.8	-1.6	27.8	28	-18.3	1	0	16	-2.2	70	36	-15	31	4	2	3	25	6.6	E	15.2	S	18+	9	8	14	6.3	57
WICHITA	403	965.0	1014.8	13.3	-0.6	6.3	-0.6	27.2	28	-14.4	1	0	19	-2.2	61	7	-35	3	5	4	T	T	5.8	SE	21.5	NW	11	12	9	10	5.5	65
KENTUCKY																																
COVINGTON	265	983.7	1016.4	8.9	0.6	4.8	-0.5	24.4	29	-10.6	2	0	12	-2.2	66	108	12	50	11	3	132	76	4.6	ENE	12.5*	W	13	2	5	24	8.6	
LEXINGTON	298	980.0	1016.2	10.0	1.1	5.4	-0.8	23.9	29	-8.9	2+	0	12	0.0	75	131	10	64	13	2	61	51	5.5	ENE	16.1*	W	21	4	3	24	8.2	
LOUISVILLE	144	996.8	1016.3	10.6	1.1	5.7	-0.6	25.0	29	-8.9	1	0	11	0.6	72	91	-26	27	14	4	41	25	4.4	ENE	13.4	WSW	11	4	7	20	7.9	35
LOUISIANA																																
ALEXANDRIA	28	1012.0	1016.8	19.4	5.0	11.9		27.2	30	-1.7	6+	0	7	5.6	70	58		34	9	3	T	0	3.1	N				7	6	18	6.6	
BATON ROUGE	20	1013.4	1016.6	20.6	7.2	13.7	-1.9	28.9	30	-0.6	6	0	2	7.2	70	83	-42	40	6	2	0	0	4.1	NW				8	9	14	6.3	
BURWOOD R	2		1016.7	17.8	11.1	14.5	-1.9	24.4	9	3.9	6	0	0	11.1	82	71	-36	29	6	2	0	0	5.5	NE								
LAKE CHARLES	4	1013.1	1016.3	20.0	7.8	13.7	-2.2	26.1	30+	0.6	6	0	0	8.3	74	35	-72	21	6	3	0	0	5.3	NNE	14.3*	S	8	7	6	18	6.6	
NEW ORLEANS	1	1014.2	1016.5	20.0	8.3	14.4	-1.4	29.4	21	0.0	17	0	1	9.4	75	41	-95	13	12	3	0	0	3.9	NNW	10.7*	SSE	20	7	8	16	6.4	
NEW ORLEANS AUDUBON	3	1009.5						28.9	21+	2.8	6					33		12	10	2	0	0							0			
SHREVEPORT	77	1007.5	1016.9	17.8	6.1	11.8	-1.8	26.7	28	-2.2	2	0	4	5.6	69	83	-22	31	8	4	T	T	4.7	SSE				7	9	15	5.9	65
MAINE																																
CARIBOU	190	989.6	1013.5	4.4	-6.1	-0.7	4.4	22.8	30	-20.0	2	0	26	-6.1	64	18	-43	7	5	0	196	305	6.3	NW	23.2*	NW	2	9	6	16	6.3	
PORTLAND	19	1010.1	1014.4	6.1	-4.4	0.8	1.1	17.2	30	-18.9	4	0	25	-3.9	64	55	-56	38	8	0	307	483	4.8	NW	15.2	NE	13+	12	5	14	5.8	60
MARYLAND																																
BALTIMORE	45	1011.2	1016.2	11.7	0.0	5.7	-0.5	27.8	30	-10.6	2	0	18	-3.3	57	123	26	38	10	0	345	178	5.2	NW	17.0	NE	6	10	12	9	5.2	65
BALTIMORE U	4			11.1	2.2	6.7	-0.3	26.7	30	-11.1	2	0	9			138	38	52	11													
FREDERICK	90			10.0	-1.7	4.1	-1.0	26.7	30	-11.7	8+	0	20			85	-4	30	9		264	229										
MASSACHUSETTS																																
BLUE HILL OBS R	192	988.9	1012.8	6.1	-2.2	2.1	0.5	23.3	30	-16.7	3	0	24		69	42	-73	26	8		38	381	8.3	NW	25.5	NW	24					59
BOSTON	5	1008.4	1013.9	7.2	0.0	3.6	0.4	23.9	30	-13.9	3+	0	13	-3.3	58	38	-70	25	9	0	28	127	7.8	WNW	18.8	WNW	24+	10	9	12	5.5	67
NANTUCKET	13	1012.5	1013.2	6.1	-0.6	2.7	0.4	12.8	24	-10.6	3	0	14	-2.2	70	25	-91	18	8	0	28	25	7.8	NW	22.4	NE	6	10	8	13	5.9	61
PITTSFIELD	357			5.6	-5.0	0.3	1.0	23.3	30	-19.4	3+	0	29			25	-56	14	6		112	356										
WORCESTER	301	957.7	1013 6	5.6	-2.8	1.3	0.8	22.2	30	-17.8	2	0	24	-5.0	57	52	-53	45	7	0	114	660	5.5	W	19.2*	ENE	6	11	10	10	5.5	
MICHIGAN																																
ALPENA	210	992.2		3.3	-8.3	-2.7	-0.1	15.6	29	-32.8	4+	0	29			22	-29	19	6	0	213	711	3.0	E#	12.1	E	12	7	7	17	6.7	58
DETROIT	189	990.5	1018.2	5.6	-2.2	1.7	0.1	24.4	29	-17.2	1	0	19	-4.4	68	29	-33	13	8	0	58	76	4.7	NNE	13.0	NW	30	7	4	20	7.2	51
DETROIT M WAYNE CO	193	992.9	1017.8	5.0	-3.3	0.7	-0.6	23.9	29	-16.7	1	0	28	-4.4	73	27	-34	13	9	1	66	51	4.3	NNE				4	9	18	7.3	
DETROIT WILLOW RUN	217	988.1	1017.4	6.1	-2.2	1.7	-0.2	26.1	29	-16.1	2+	0	21	-3.9	70	29	-32	12	8	1	91	51	5.2	NNE	13.0*	SSW	29	5	5	21	7.4	
ESCANABA U	181	994.8		2.2	-7.2	-2.5	0.7	8.9	27	-28.3	2	0	29	-6.7	75	34	-8	19	5	0	236	889	3.8		13.4	NE	21	7	8	16	6.6	58
FLINT	233	989.6	1018.5	4.4	-4.4	-0.1	-0.2	23.9	29	-20.6	2+	0	28	-4.4	74	19	-36	10	8	0	119	102	4.4	ENE	11.2*	ESE	12	6	4	21	7.5	
GRAND RAPIDS	208	992.4	1018.0	5.0	-3.9	0.3	0.1	22.8	29	-20.0	2	0	26	-5.0	71	44	-14	22	10	0	203	279	4.6	E	13.9	S	28	5	6	20	7.6	45
LANSING	260	984.5	1017.7	4.4	-5.0	-0.1	-0.3	23.9	29	-22.8	2	0	29	-5.6	71	25	-36	10	10	0	104	229	6.1	ENE	17.4	NE	21	5	8	18	7.0	64
MARQUETTE U	206	991.0		1.7	-5.6	-2.0	0.9	14.4	28	-25.0	1	0	27			34	-15	20	7	0	305	914	2.7	NW#	9.4	NE	12	4	9	18	7.4	61
MUSKEGON	191	993.9	1018.0	3.9	-3.9	-0.1	-0.1	20.0	28	-20.6	2	0	24	-4.4	75	38	-14	15	11	0	229	254	4.3	E	13.0*	SSW	28+	5	8	18	7.4	
SAULT STE MARIE	220	995.5	1019.2	2.2	-7.2	-2.4	2.4	8.3	26	-27.2	2+	0	30	-6.7	75	24	-22	8	9	0	109	838	3.4	E	13.0*	E	12	11	6	14	6.0	63
MINNESOTA																																
DULUTH	435	975.7	1018.8	-0.6	-8.3	-4.3	1.4	5.6	28+	-33.3	1	0	31	-8.3	73	27	-14	24	10	0	196	686	5.0	ENE	18.8	NE	4	5	3	23	8.0	42
INTERNATIONAL FALLS	359	976.1	1018.9	1.7	-8.3	-3.5	3.5	7.8	21	-38.9	1	0	30	-7.8	74	19	-7	6	9	0	114	584	3.2	SE	10.7*	SSE	2	6	2	23	7.8	

See footnotes at end of table

CLIMATOLOGICAL DATA
METRIC UNITS

State and Station	Elevation (ground)	Pressure		Temperature								No. of days			Average relative humidity	Precipitation			No of days		Snow, Sleet		Wind		Fastest mile (1.6 kilometers)			No. of days (sunrise to sunset)			Sky cover tenths (sunrise to sunset)	Possible sunshine
		Station ⊙	Sea level	Average maximum	Average minimum	Average	Departure from normal	Highest	Date	Lowest	Date	Max 32.2 °C or above	Min 0 C or lower	Average dew point		Total	Departure from normal	Greatest in 24 hours	25 mm or more	With thunderstorms	Total	Maximum depth on ground	Average speed	Prevailing direction	Speed	Direction	Date	Clear 0-3	Partly cloudy, 4-7	Cloudy, 8-10		
	M	Mb.	Mb.	C	C.	C.	C.	C.		C.				C	%	Mm.	Mm.	Mm.			Mm	Mm	M p s		M p s							%
MINNESOTA																																
MINNEAPOLIS	251	983.3	1018.5	0.0	- 8.3	- 4.2	-1.7	8.3	28	-35.6	1	0	29	- 7.2	78	47	9	22	9	0	554	686	4.6	SE	12.1	NNE	12	3	9	19	7.6	36
ROCHESTER	395	967.9	1017.8	- 0.6	- 8.3	- 4.4	-2.4	11.1	28	-35.0	1	0	30	- 6.1	85	34	- 8	20	9	0	411	457	4.7	SE				5	10	16	7.1	
ST CLOUD	315	978.9	1018.6	1.1	- 8.3	- 3.5	0.1	10.0	28	-35.6	1	0	31		78	28	- 4	7	9	0	386	559						5	7	19	7.5	
MISSISSIPPI																																
JACKSON	93	1004.1	1016.7	17.2	5.6	11.4	-2.2	26.7	30	- 3.9	6	0	4	3.9	65	92	- 50	30	7	4	0	0	3.8	NNW	13.9	W	5	9	6	16	6.2	57
MERIDIAN	89	1002.7	1016.9	17.8	4.4	11.2	-2.4	28.3	30	- 4.4	6	0	7	5.0	70	135	- 25	90	10	2	0	0	3.8	N	11.2*	NW	5	10	7	14	6.0	
VICKSBURG U	74	1006.9		16.1	6.7	11.4	-2.8	25.0	29+	- 2.2	1	0	4			81	- 65	26	10	2	T	T	4.1		14.8	NW	5	8	7	16	6.4	57
MISSOURI																																
COLUMBIA	237	986.7	1015.5	9.4	- 1.7	3.8	-1.7	27.8	28	-18.9	1	0	17	- 1.7	73	77	10	61	10	2	30	25	5.6	ESE	15.2	SW	11	4	11	16	7.2	47
KANSAS CITY	226	979.8	1015.8	10.0	- 0.6	4.5	-1.5	28.3	28	-18.3	1	0	12	- 2.2	66	49	- 15	38	7	3	3	51	4.3	ENE	18.8	NW	4	7	8	16	6.8	71
ST JOSEPH	247	980.6		7.8	- 3.3	2.2	-2.3	26.7	28	-22.8	1	0	20			22	- 37	17	5	0	5	152	5.9	ESE	14.3*	WNW	13	7	11	13	6.2	
ST LOUIS	163	995.2	1016.5	9.4	- 0.6	4.2	-1.9	26.7	28	-15.0	1	0	15	- 1.7	68	76	- 2	47	11	2	15	25	5.2	WNW	16.1	NE	11+	5	6	20	7.5	38
ST LOUIS RFC	142			9.4	1.1	5.1	-1.8	26.7	28	-14.4	1	0	12			91	10	54	9	0	10	T										
SPRINGFIELD	386	967.2	1015.8	11.1	- 0.6	5.3	-1.3	26.1	28	-15.0	1	0	15	- 1.1	67	66	- 7	30	8	4	8	25	5.7	SSE	20.1	SW	11	7	8	16	6.7	59
MONTANA																																
BILLINGS	1087	888.3	1016.0	4.4	- 7.2	- 1.4	-2.1	19.4	27	-21.1	1	0	25	- 8.3	65	31	5	14	10	1	292	152	4.2	SW	14.3	NW	21	3	8	20	7.6	74
GLASGOW	694	940.7		- 1.7	-12.2	- 7.1	-4.1	18.3	26	-31.1	4	0	29	- 9.4	82	14	-	6	8	0	140	152						5	7	19	7.3	
GREAT FALLS	1116	885.9	1016.6	1.7	- 8.3	- 3.4	-2.9	17.2	26	-28.3	4	0	26	- 9.4	66	19	- 5	6	6	0	150	127	4.2	SW	14.3	SW	24	0	12	19	8.2	69
HAVRE	787	925.5		0.0	-12.8	- 6.4	-3.6	18.3	26	-27.8	3+	0	29			10	- 5	6	7	0	79	102	2.7	W#	13.9	W	26	2	11	18	7.5	70
HELENA	1187	870.0	1016.4	5.0	- 8.3	- 1.6	-1.3	18.3	26	-20.6	2	0	29	- 8.3	64	18	-	5	10	0	185	51	3.3	WSW	13.0	W	25	3	9	19	7.4	64
KALISPELL	904	909.2		4.4	- 7.2	- 1.2	0.0	13.9	31	-17.2	11	0	27			28	3	7	11	0	165	127	2.6					3	6	22	8.2	
MILES CITY	801			3.3	- 9.4	- 3.3	-2.7	20.6	27	-26.1	1	0	27	- 7.8	75	17	0	10	7	0	64	102	4.1	NW	13.0*	NNW	31	4	11	16	6.8	
MISSOULA	972	899.4	1016.6	5.0	- 6.1	- 0.6	-1.6	15.0	31	-17.2	13	0	29	- 5.0	75	17	- 2	5	12	0	175	76	2.6	NW	13.9	NW	8	3	4	24	8.3	52
NEBRASKA																																
GRAND ISLAND	561	948.5		3.3	- 7.2	- 1.9	-4.8	23.3	28	-20.6	1	0	28	- 5.6	78	40	8	12	11	0	213	305	5.4	NW				9	5	17	6.5	
LINCOLN U	351			5.0	- 4.4	0.5	-2.9	25.0	28	-20.6	1	0	23			28	- 16	14	9		64	76	4.8	NW#	15.2	NW	4	6	10	15	6.9	52
NORFOLK	471	959.2		1.7	- 7.8	- 3.3	-4.1	22.8	27	-24.4	6	0	28			63	23	30	12	0	305	457						7	5	19	7.2	
NORTH PLATTE	847	913.5	1015.3	6.7	- 6.7	0.0	-1.7	25.6	27	-16.7	5	0	28	- 6.1	69	29	4	9	6	1	180	127	5.6	NNW	19.2	NW	12	9	4	18	6.6	60
OMAHA	298	975.6	1017.1	5.0	- 5.0	- 0.1	-2.8	23.9	28	-22.8	1	0	24	- 3.9	79	39	2	14	13	2	226	279	5.5	WNW	17.9	NW	13	6	10	15	6.7	49
OMAHA N OMAHA AP	403	967.0		3.3	- 5.6	- 1.3	-2.8	22.2	28	-25.0	1	0	25			35	- 2	14	15	2	203	279						6	8	17	6.7	
SCOTTSBLUFF	1204	875.8	1015.2	7.8	- 6.7	0.6	-0.9	22.8	27	-20.0	1	0	29	- 7.2	62	9	- 13	4	7	1	74	127	6.3	NW	17.9*	NW	12	9	9	13	6.1	
VALENTINE	789	922.6		3.3	- 9.4	- 3.2	-2.8	25.0	27	-23.3	5	0	28	- 6.1	81	21	- 5	9	8	0	163	483	5.3	N#	17.0	N	31+	8	8	15	6.3	66
NEVADA																																
ELKO	1547	842.5	1016.2	7.2	- 5.6	0.7	-1.2	17.8	27+	-16.7	2	0	31	- 6.1	64	16	- 5	4	11	0	378	152	3.4	SW	11.2*	W	27+	8	3	20	6.7	
ELY	1907	806.0	1016.0	6.1	- 8.9	- 1.5	-2.3	16.7	27	-21.1	13	0	31	- 7.8	65	28	6	9	8	0	381	102	3.9	S	16.1	S	6	7	8	16	6.5	69
LAS VEGAS	659	948.5	1014.5	17.8	3.3	10.7	-2.2	30.0	27	- 5.0	1	0	6	- 7.8	31	4	- 5	2	4	0	T	T	4.1	WSW	15.6*	SSW	22+	16	7	8	4.2	87
RENO	1342	860.8	1016.6	12.2	- 3.9	4.2	-0.8	22.8	26	- 9.4	9	0	27	- 3.9	61	21	4	9	8	1	312	76	3.0	WNW	13.9	W	2	6	10	15	6.5	68
WINNEMUCCA	1310	865.6		8.3	- 3.9	2.2	-1.1	20.0	27	-10.0	12+	0	29	- 3.9	68	23	2	8	8	0	254	152	3.6	S	16.5	N	9	8	2	21	7.0	46
NEW HAMPSHIRE																																
CONCORD	103	1003.9	1016.6	7.2	- 5.0	1.1	1.3	24.4	30	-16.7	2	0	26	- 5.6	57	42	- 41	27	7	0	114	610	3.6	NW	13.4	NW	24	12	7	12	5.3	63
MT WASHINGTON OBS	1909	796.5		- 7.8	-13.9	-10.8	0.4	5.6	30	-31.7	2	0	30		84	166	20	101	11	0	714	356	17.3	NW	57.7Y	SE	12	8	7	16	6.8	43
NEW JERSEY																																
ATLANTIC CITY	18	1013.3	1015.5	10.0	- 0.6	4.9	-0.2	23.3	30	-11.1	4+	0	18	- 3.3	61	138	38	56	9	0	99	51	5.4	W	19.7*	E	6	10	11	10	4.8	59
ATLANTIC CITY U	3			7.8	1.7	4.5	-0.8	12.8	28+	- 7.2	2	0	6			116	26	44	8				7.0		19.7*	NE	6					
NEWARK	3	1014.2	1015.5	10.6	0.6	5.6	0.8	26.7	30	-11.7	3	0	12	- 4.4	48	85	- 19	60	7	0	38	25	5.7	NW	16.5*	ENE	6	16	9	6	4.0	
TRENTON U	17	1007.6		10.0	0.6	5.2	0.4	25.6	30	-11.7	3	0	12			93	- 5	38	7		124	102	5.3	NW#	18.8	NE	6	14	9	8	4.6	71
NEW MEXICO																																
ALBUQUERQUE	1618	845.6	1012.9	13.3	- 2.8	5.1	-2.8	23.9	27	-11.7	15	0	24	- 9.4	40	5	- 8	3	4	0	5	T	3.8	NNW	19.2	W	10	14	8	9	4.9	75
CLAYTON	1515	840.8		13.3	- 4.4	4.5	-0.4	26.7	27	-13.9	14	0	28			5	- 11	3	2	0	20	T						12	10	9	4.7	
RATON	1944	800.9		11.1	- 8.9	1.2	-2.2	22.8	27	-20.6	1	0	31			9	- 4	8	3	0	89	102						11	11	9	4.9	
ROSWELL	1101	889.9		18.3	- 1.1	8.6	-0.3	30.6	27	-10.0	2	0	20	- 7.8	37	3	- 10	3	1	0	30	T	5.5		22.4	NW	23	15	7	9	4.6	74
SILVER CITY	1638	831.0		14.4	- 1.7	6.4		24.4	27	- 8.9	15	0	23			13		6	5	0	56	25						14	8	9	4.5	
NEW YORK																																
ALBANY	84	1012.4	1016.2	6.7	- 3.3	1.5	0.9	26.1	30	-17.8	2	0	23	- 5.0	57	43	- 26	20	5	0	81	203	4.5	WNW	15.2	NW	15	12	6	13	5.7	59

See footnotes at end of table

CLIMATOLOGICAL DATA

METRIC UNITS

State and Station	Elevation (ground)	Pressure		Temperature											Average relative humidity	Precipitation							Wind					No of days (sunrise to sunset)			Sky cover, tenths (sunrise to sunset)	Possible sunshine
												No. of days							No. of days		Snow, Sleet				Fastest mile (1.6 kilometers)							
		Station O	Sea level	Average maximum	Average minimum	Average	Departure from normal	Highest	Date	Lowest	Date	Max 32.2 °C or above	Min. 0 C or lower	Average dew point		Total	Departure from normal	Greatest in 24 hours	.25 mm or more	With thunderstorms	Total	Maximum depth on ground	Average speed	Prevailing direction	Speed	Direction	Date	Clear, 0-3	Partly cloudy, 4-7	Cloudy, 8-10		
	M.	Mb.	Mb.	C.	C.	C.	C.	C.		C.				C.	%	Mm.	Mm.	Mm.			Mm.	Mm.	M.p.s.		M.p.s							%
NEW YORK																																
BINGHAMTON	485	955.6	1015.7	3.3	- 4.4	- 0.6	0.1	21.7	30	-19.4	2	0	28	- 5.0	64	59	- 15	35	10	0	71	76	5.1	NW	16.1	SE	11	9	6	16	6.3	59
BUFFALO	215	988.9	1017.9	4.4	- 3.9	0.3	1.1	22.8	29	-16.7	3+	0	28	- 5.0	60	31	- 51	11	13	1	170	76	4.6	WSW	15.2	SW	29	9	7	15	6.5	50
NEW YORK U	40	1003.1		10.6	1.7	6.2	1.4	26.1	30	-11.7	3	0	7	- 5.0	50	75	- 26	59	4	0	5	T	5.5	NW#	22.8	NE	6	18	7	6	3.5	75
NEW YORK	6	1013.4	1015.4	8.9	1.7	5.1	0.2	21.7	30	-10.6	3+	0	9	- 3.3	56	66	- 41	46	4	0	18	T	7.7	NE	19.2	NE	6	16	9	6	4.3	
ROCHESTER	166	998.2	1018.1	5.6	- 3.9	0.8	0.7	25.6	29	-18.3	3	0	26	- 4.4	68	32	- 45	17	6	0	117	76	5.1	WSW	14.8	W	17+	9	7	15	6.3	57
SCHENECTADY	66			6.7	- 3.3	1.7	1.4	24.4	30	-17.2	2	0	22			45	- 24	23	6		109	203						19	5	7	3.7	
SYRACUSE	129	994.7	1017.4	6.1	- 3.3	1.4	1.1	24.4	29	-17.2	2	0	24	- 5.0	59	50	- 42	23	9	0	30	76	4.5	WNW	16.1	NW	1	12	5	14	5.7	56
NORTH CAROLINA																																
ASHEVILLE U	671	935.0		11.1	1.7	6.3	-1.6	21.1	29	- 7.2	6	0	13			105	10	25	15	0	211	76	4.5	NW#	14.8	W	21	9	2	20	6.8	47
CAPE HATTERAS R	2	1013.8	1014.6	12.2	4.4	8.2	-2.4	22.2	31	- 1.1	19+	0	2	3.9	77	145	40	73	11	4	T	T	5.5	NNE	26.8	NNW	7	6	9	16	6.7	59
CHARLOTTE	224	986.7	1015.5	14.4	3.3	9.0	-1.3	25.0	21	- 2.8	18+	0	7	0.6	60	139	27	33	12	2	36	T	3.7	NE	15.2	SW	21	6	8	17	6.8	53
GREENSBORO	272	983.6	1015.7	12.8	1.1	6.9	-1.6	24.4	30	- 5.6	3	0	13	- 0.6	64	121	27	40	13	3	259	25	4.1	NE	14.3	NW	6	7	5	19	6.8	52
RALEIGH	132	1001.3	1015.4	13.3	1.7	7.5	-2.2	23.9	31+	- 5.6	3	0	13	0.0	63	123	38	45	12	2	109	51	4.1	NE	15.6*	S	31	6	7	18	6.9	52
WILMINGTON	9	1012.5	1015.6	15.6	5.0	10.3	-2.1	25.6	31	- 1.7	3	0	8	3.9	69	127	25	50	14	3	28	T	4.9	NNE	15.6	SW	21	5	11	15	6.7	52
WINSTON SALEM	295	979.7	1015.7	12.8	2.8	7.7	-1.3	24.4	30	- 6.1	3	0	12	- 1.7	56	104	2	38	13	3	213	76	4.9	ENE	17.9*	WSW	31	7	7	17	6.6	
NORTH DAKOTA																																
BISMARCK	502	955.2	1018.3	0.6	-10.6	- 4.9	-1.1	21.1	27	-33.3	1	0	28	- 8.9	76	18	- 2	10	6	0	145	127	4.6	SE	15.6	NW	13	1	6	24	8.2	57
DEVILS LAKE U	448	962.6		- 2.2	-11.7	- 7.2	-1.4	10.0	27	-32.8	1	0	31			42	22	21	10	0	447	457	3.9	SE#	11.2	N	31	4	9	18	7.7	55
FARGO	274	982.4	1018.3	- 1.1	- 8.9	- 5.2	-0.9	6.1	27	-30.6	1	0	28	- 7.2	82	27	8	10	9	0	272	356	5.4	SSE	16.1	NW	12	3	8	20	7.7	40
WILLISTON U	579	947.2		0.0	-12.2	- 6.1	-2.4	16.7	26	-33.3	5	0	29			15	- 3	6	10	0	137	152	4.4	NW#	19.2	NW	30	4	10	17	7.2	50
OHIO																																
AKRON	369	978.3	1017.4	6.1	- 2.8	1.6	-0.3	23.9	29	-15.0	2	0	22	- 3.9	73	60	- 24	13	11	1	373	203	4.6	ENE	11.2	SW	29	3	11	17	7.7	
CINCINNATI OBS	232			9.4	0.6	4.9	-1.1	25.0	29	-10.6	2	0	14			104	5	52	12	1	84	51	3.4		9.8	SW	19					31
CINCINNATI U	169	992.9		10.0	1.7	5.8	-1.1	24.4	29	- 9.4	2+	0	10			100	- 4	49	11	2	53											
CLEVELAND	237	988.4	1017.0	5.0	- 2.8	1.0	-0.9	25.0	29	-14.4	1	0	24	- 3.9	74	44	- 36	9	13	0	226	76	5.4	NNE	17.0	N	6	2	8	21	7.9	48
COLUMBUS	247	986.0	1016.6	7.2	- 2.2	2.7	-1.7	25.0	29	-12.8	2+	0	21	- 3.9	67	62	- 19	12	12	0	343	229	4.2	N	13.4	W	13	2	6	23	8.2	36
COLUMBUS U	221			8.3	- 0.6	3.9	-0.8	23.9	29	-12.8	2+	0	16			67	- 6	18	12		310	229										
DAYTON	305	979.1	1016.3	7.2	- 1.7	2.7	-1.1	24.4	29	-12.8	2	0	20	- 2.2	73	59	- 20	16	13	1	272	152	5.2	N	16.1	SW	11	2	6	23	8.6	38
MANSFIELD	395			5.6	- 2.8	1.2	-0.6	22.8	29	-15.6	2	0	25			45	- 51	14	11	1	178	76						3	7	21	8.1	
SANDUSKY U	184	994.7		5.0	- 1.1	1.9	-0.9	25.0	29	-13.3	1	0	20			54	- 19	15	13	0	224	152	4.5		15.6	NE	21	11	4	16	5.8	54
TOLEDO	206	991.7	1017.7	5.6	- 2.2	1.7	-0.1	25.6	29	-14.4	1	0	21	- 3.9	67	44	- 13	14	10	2	244	178	4.9	ENE	11.6	S	29	5	3	23	7.9	41
YOUNGSTOWN	359	973.1	1017.1	5.6	- 3.3	1.1	-1.3	23.9	29	-16.7	2	0	23	- 4.4	73	50	- 35	14	13	0	498	254	5.1	SE	12.5*	SSE	11	5	7	19	7.4	
OKLAHOMA																																
OKLAHOMA CITY	390	971.3	1015.6	16.1	2.2	8.9	0.1	27.2	28	-12.2	1	0	13	- 0.6	57	20	- 30	15	3	1	0	T	7.0	SSE	22.8	SW	10	12	10	9	4.8	82
TULSA	198	991.0	1015.5	14.4	1.1	7.8	-1.4	26.7	28	-12.8	1	0	14	- 1.1	59	82	21	41	5	3	0	51	5.9	SSE	16.5	SE	28	12	6	13	5.2	65
OREGON																																
ASTORIA	2	1014.9	1015.3	10.6	2.2	6.3	-0.7	20.6	29	- 2.8	12	0	9	2.8	82	132	- 95	25	20	0	41	25	4.8	SSE	19.2*	SSW	22	4	3	24	8.2	
BURNS U	1265	870.3		7.8	- 5.0	1.5	-1.5	18.3	31	-13.3	2	0	29	- 3.9	69	31	6	9	11	0	287	76						10	3	18	6.6	
EUGENE	110	1002.4		11.7	2.2	7.0	-0.8	19.4	29	- 2.2	13+	0	11			180	70	50	19	0	48	25	4.4		13.4*	N	28	4	7	20	7.5	
MEACHAM	1234			3.9	- 3.9	- 0.2	-0.9	12.2	31	-10.0	2	0	30			126	26	32	19	0	965	483						5	4	22	7.9	
MEDFORD	396	968.2	1016.7	13.9	0.6	7.0	-0.7	23.9	31	- 6.1	13	0	16	0.6	70	39	- 6	11	15	0	119	51	2.5	NW	11.6*	SE	5	8	3	20	7.2	
PENDLETON	452	961.1	1015.3	11.1	1.7	6.4	-0.3	19.4	31	- 3.3	1	0	10	- 0.6	64	29	- 2	10	15	1	18	T	3.8	W	17.9*	W	8	6	4	21	7.1	
PORTLAND	6	1009.8	1015.7	12.2	2.8	7.4	-0.4	20.6	31+	- 2.2	28+	0	7	2.2	74	108	11	31	20	1	3	25	3.8	ESE	13.9	S	24+	5	2	24	7.7	32
PORTLAND U	9			11.7	3.9	8.0	-0.7	21.7	30	- 0.6	12+	0	2			122	-	31	20		28	T										
ROSEBURG	154	997.6		13.3	2.8	7.9	-0.2	21.7	29	- 1.7	13	0	7			114	27	19	21	0	T	T	2.1	N#	13.0	SE	5	1	9	21	8.1	44
SALEM	59	1008.5	1015.9	11.7	1.7	6.6	-1.1	20.6	29	- 5.0	13	0	14	2.8	80	144	25	38	20	0	66	T	4.0	S	13.4*	S	24+	5	4	22	7.5	
SEXTON SUMMIT R	1169	880.8		5.6	- 1.1	2.2	-1.2	17.8	31	- 6.1	12	0	22			97	8	26	18	0	612	356	4.9	S				8	2	21	7.0	
PACIFIC AREA																																
CANTON ISLAND	2	1009.2	1009.6	31.1	25.6	28.3	-0.1	32.2	22+	23.9	15+	3	0	22.8	75	20	- 43	8	8	0	0	0	5.0	E	10.3*	ESE	29	14	12	5	4.5	
ENIWETOK	5	1010.2		30.0	25.6	27.7	0.3	30.6	21+	22.8	25	0	0	22.2	72	46	- 1	13	13	0	0	0	9.2									
TAGUAC GUAM R	110			29.4	23.3	26.2	0.2	30.6	30	19.4	7	0	0			42	- 25	30	11	0	0	0	4.2	E#	12.1	E	28					75
KOROR R	29	1005.7	1009.5	30.0	23.9	27.0	-0.1	31.1	30+	22.8	7+	0	0	23.9	85	194	1	50	24	3	0	0	3.7	NNE	9.8	SE	2	0	1	30	9.8	54
KWAJALEIN	2	1008.8	1009.7	30.6	25.0	27.8	0.9	31.1	26+	22.2	2	0	0	22.2	73	99	- 66	50	13	1	0	0	7.9	ENE	13.9*	E	26	6	12	13	6.3	
MAJURO	3	1009.3	1009.6	29.4	25.0	27.1	0.1	30.6	24+	22.8	31+	0	0	23.3	80	292	- 6	81	25	0	0	0	6.1	ENE	14.8	NE	1	0	9	22	8.6	61
TRUK MOEN ISLAND	2	1008.7	1009.0	29.4	25.6	27.5	0.4	30.6	31+	22.2	12	0	0	23.3	78	324	128	131	15	3	0	0	3.8	NNE	9.8	SE	12+	1	3	27	8.9	38
WAKE ISLAND	3	1015.5	1015.9	27.8	22.2	25.2	-0.2	29.4	31+	20.0	6	0	0	19.4	72	25	- 12	6	15	0	0	0	7.0	ENE	13.9*	NE	6	13	16	2	4.4	
YAP R	17	1007.5	1009.5	30.0	24.4	27.2	0.0	30.6	30+	21.7	10	0	0	23.9	82	199	62	112	16	0	0	0	4.9	NE	14.8	NE	4	0	0	31	10.0	76

See footnotes at end of table

CLIMATOLOGICAL DATA

METRIC UNITS

State and Station	Elevation (ground)	Pressure		Temperature											Average relative humidity	Precipitation							Wind					No. of days (sunrise to sunset)			Sky cover tenths (sunrise to sunset)	Possible sunshine
		Station O	Sea level	Average maximum	Average minimum	Average	Departure from normal	Highest	Date	Lowest	Date	No. of days: Max 32.2 °C or above	No. of days: Min. 0 C or lower	Average dew point		Total	Departure from normal	Greatest in 24 hours	No of days: 25 mm or more	No of days: With thunderstorms	Snow Sleet: Total	Snow Sleet: Maximum depth on ground	Average speed	Prevailing direction	Fastest mile (1.6 kilometers): Speed	Fastest mile: Direction	Fastest mile: Date	Clear, 0-3	Partly cloudy, 4-7	Cloudy, 8-10		
	M.	Mb.	Mb.	C.	C.	C	C.	C.		C.				C.	%	Mm.	Mm.	Mm.			Mm.	Mm.	M p.s		M.p.s							%
PENNSYLVANIA																																
ALLENTOWN	115	1001.4	1016.1	9.4	-1.7	3.9	0.8	25.6	30	-12.8	3+	0	20	-3.9	56	80	-17	37	7	0	117	76	6.0	NW	16.1*	NNE	6	13	8	10	4.8	
ERIE	223	990.4	1017.4	4.4	-2.8	0.7	-0.2	24.4	29	-15.6	2	0	25	-3.9	76	30	-43	10	9	0	114	76	5.7	NE	19.2*	SE	12+	5	7	19	7.2	
HARRISBURG	102	1001.9	1016.2	9.4	-1.7	4.1	-0.6	26.7	30	-12.2	2	0	17	-4.4	51	69	-19	25	11	0	277	178	4.4	WNW	16.1	NE	6	8	10	13	5.7	67
PHILADELPHIA	2	1011.2	1015.4	10.0	-0.6	4.7	-0.3	25.0	30	-12.2	4	0	17	-3.9	55	99	3	41	7	0	183	102	5.7	N	21.5	NE	6	10	11	10	5.3	73
PHILADELPHIA U	11			11.7	1.7	6.7	0.3	25.6	30	-11.1	2	0	8			0		0														
PITTSBURGH	351	986.3	1016.9	7.2	-2.2	2.5	-1.2	23.9	29	-14.4	2	0	20	-4.4	61	98	17	28	13	0	485	305	4.6	W	10.3*	WSW	13+	4	6	21	7.7	47
PITTSBURGH U	228			8.3	0.0	4.1	-1.3	24.4	29	-13.3	2	0	16			99	12	26			290											34
READING U	81	1003.4	1015.5	10.0	0.6	5.4	0.2	25.6	30	-11.1	2	0	13			87	-9	34	8	0	145	102	6.2	NW#	21.9	NE	6	12	8	11	5.2	72
SCRANTON	287	1015.4	1016.5	7.8	-2.2	2.6	0.8	25.6	30	-14.4	3	0	25	-5.0	54	50	-21	25	9	0	71	25	4.3	NNW	16.1	SE	12	10	8	13	5.5	57
WILLIAMSPORT	161	998.0	1017.5	8.3	-2.8	2.9	-0.1	25.0	30+	-13.9	4+	0	22	-4.4	56	122	27	29	11	0	241	152	3.9	W	13.4*	E	11	9	9	13	5.8	
RHODE ISLAND																																
BLOCK ISLAND	34	1009.3	1013.8	5.6	-0.6	2.4	-0.4	11.7	31	-12.8	2	0	15			64	-39	53	6	0	20	T						15	5	11	4.8	
PROVIDENCE	17	1008.0	1014.4	7.8	-1.1	3.2	0.4	19.4	31+	-13.9	3	0	18	-3.9	57	49	-56	41	4	0	T	203	6.3	NNW	17.9*	NNE	7	10	11	10	5.2	67
SOUTH CAROLINA																																
CHARLESTON	12	1013.3	1015.4	17.8	6.1	11.8	-1.9	25.0	30	-2.8	8	0	5	5.0	70	200	100	47	13	3	T	T	4.5	NNE	19.2Y	SW	21	7	6	18	6.6	54
CHARLESTON U	3			16.1	8.3	12.1	-2.1	23.3	31+	0.0	6	0	1			164	72	66	12		0	0	5.3		14.3	NE	2					
COLUMBIA	66	1002.7	1015.9	17.2	4.4	10.7	-1.7	28.3	21	-2.8	18	0	7	2.2	62	112	4	56	12	5	T	T	3.6	NE	13.0*	WSW	21+	7	7	17	6.6	48
FLORENCE	45	1008.9	1014.9	16.7	5.0	10.7	-1.9	25.6	31+	-2.8	3	0	5	2.2	61	115	23	64	12	2	T	T	4.3	NNE	12.1*	SSE	31	6	8	17	6.7	
GREENVILLE	308	977.4	1015.1	15.0	3.9	9.5	-1.5	25.0	21	-2.2	6	0	5	1.1	62	227	102	65	13	3	58	51	4.2	ENE	21.0	W	12	9	2	20	6.6	50
SPARTANBURG	244	985.1	1015.5	14.4	3.9	9.3	1.2	25.0	21	-1.7	8+	0	8	0.6	60	249	132	82	11	2	30	25	4.2	NE	15.6*	WSW	21	9	3	19	6.7	
SOUTH DAKOTA																																
HURON	391	968.7	1018.2	-2.8	-10.0	-6.3	-5.0	5.6	27	-27.2	1	0	31	-6.7	94	60	32	25	10	0	632	686	7.0	SSE	20.6	NW	31	4	5	22	8.0	26
RAPID CITY	965	898.6	1016.7	4.4	-7.8	-1.9	-1.4	22.8	27	-27.2	1	0	29	-6.7	77	33	7	18	6	0	201	127	5.5	NNW	18.8	NW	31	7	7	17	6.8	67
SIOUX FALLS	433	963.7	1017.3	0.0	-8.3	-4.1	-3.1	12.8	27	-26.7	1	0	30	-6.7	82	44	5	12	10	0	373	610	5.3	NW	13.9*	N	12+	7	2	22	7.6	
TENNESSEE																																
BRISTOL	459	960.1	1015.3	12.2	2.2	7.1	-0.4	22.8	29	-5.0	6	0	12	0.0	65	85	-16	17	15	0	224	51	3.1	WSW	13.9*	WSW	21	4	6	21	7.7	
CHATTANOOGA	204	991.4	1016.2	14.4	3.3	8.8	-1.3	24.4	29	-2.8	18	0	6	1.7	67	112	-31	26	12	3	T	T	4.2	S	18.8	W	21	8	4	19	7.0	45
KNOXVILLE	290	979.9	1016.0	13.3	3.3	8.2	-1.3	24.4	29	-2.8	18+	0	7	0.6	62	105	-15	25	14	2	48	25	4.1	NE	26.4	SW	21	6	4	21	7.5	54
MEMPHIS	80	1001.4	1016.7	13.3	3.3	8.5	-2.4	23.9	24	-3.9	7+	0	8	2.2	70	122	-7	51	9	2	T	T	4.3	NW	14.3	NW	5	11	4	16	5.8	60
MEMPHIS U	83			12.8	4.4	8.7	-2.3	24.4	28	-5.0	1	0	6			137	12	62	9													
NASHVILLE	176	995.6	1016.0	12.2	2.8	7.4	-2.1	23.9	29	-3.9	17+	0	9	2.2	74	150	18	45	12	3	36	25	4.2	NNW	16.5	W	21	5	4	22	7.6	38
OAK RIDGE	276	979.6		13.3	2.2	7.8	-1.1	24.4	29	-5.0	18	0	9			149	7	45	14	1	61	25	2.2		21.5Y		21	6	3	22	7.5	
TEXAS																																
ABILENE	536	952.6	1014.8	18.9	4.4	11.7	-1.1	31.7	28	-12.2	1	0	10	-1.1	48	30	4	16	5	2	145	152	5.4	S	18.8	W	11	12	7	12	5.0	61
AMARILLO	1099	885.5	1012.2	16.7	-0.6	8.2	0.3	30.0	27	-11.1	1	0	14	-7.2	40	1	-20	1	1	0	T	0	7.2	WSW	25.0	N	24	13	10	8	4.6	75
AUSTIN	182	993.9	1016.2	20.6	8.3	14.4	-1.0	27.8	27	-5.0	1	0	2	3.9	56	30	-24	15	4	2	T	0	4.6	SSE	15.6	NW	11	12	4	15	5.5	60
BROWNSVILLE	5	1012.0	1014.8	24.4	13.9	19.2	-0.8	30.6	22	2.8	1	0	0	13.3	72	28	2	28	2	0	0	0	6.1	SE	15.2	NW	14	8	4	19	6.7	46
CORPUS CHRISTI	13	1014.2	1015.7	23.3	11.1	17.2	-1.2	31.7	20	0.0	1	0	1	10.0	67	10	-26	10	1	0	T	T	6.1	SE	15.2	S	28	9	6	16	6.4	58
DALLAS	147	997.2	1016.3	18.3	6.1	12.3	-1.1	27.8	28+	-8.3	1	0	6	2.2	56	60	-13	43	5	2	51	51	5.7	S	17.0	W	11	12	7	12	5.1	65
DEL RIO U	292			23.3	9.4	16.3	-0.8	32.8	29	-1.7	1	1	2			4	-19	2	5	0	T	0										
EL PASO	1194	884.3	1013.2	17.8	3.3	10.5	-2.2	27.2	27	-5.6	15	0	7	-7.2	34	6	-3	4	3	0	T	T	4.3	WSW	27.3	NW	23	14	6	11	4.8	79
FORT WORTH	166	994.9	1016.1	18.3	6.1	12.2	-1.1	28.3	28	-7.2	1	0	6	2.8	58	46	-18	30	5	2	64	51	6.6	S	18.3*	W	11	12	7	12	5.3	
GALVESTON U	2			18.3	12.8	15.7	-0.6	24.4	21	0.6	1	0	0			40	-32	18	6	0	0	0	5.5		14.8	NE	14					72
GALVESTON	2	1013.9	1016.6	18.9	12.2	15.5	-0.8	23.9	21	1.1	1	0	0	8.9	70	29	-48	13	9	0	0	0	4.8	SE				7	5	19	6.5	
HOUSTON U	12			21.7	12.2	17.1	0.2	30.0	9	1.1	1	0	0			36	-25	22	8	0	0	0										
HOUSTON	15	1013.6	1016.8	21.1	8.3	14.9	-2.2	29.4	9	0.0	1	0	1	8.9	74	24	-44	18	8	2	0	0	4.9	SSE				7	4	20	6.7	57
LAREDO	152	999.1	1014.5	26.1	12.2	19.0	-1.1	33.9	20	0.6	2	2	0	5.0	48	15	-1	12	3	1	0	0	5.1	SE	12.1*	NW	25	11	9	11	5.6	
LUBBOCK	988	901.4	1014.3	17.2	0.6	8.7	-1.1	28.9	28+	-11.7	1	0	16	-2.8	49	3	-16	1	3	0	3	T	7.9	WSW	23.2*	NNW	24	14	8	9	4.5	
MIDLAND	870	913.7	1013.4	18.3	3.9	11.3	-1.6	31.1	28	-10.0	1	0	8	-3.9	42	12	3	8	3	1	89	T	6.0	SSE	20.6*	NW	24	13	9	9	5.1	
PORT ARTHUR	5	1014.6	1016.2	21.1	7.8	14.5	-1.4	28.3	9	0.0	16+	0	2	8.9	75	34	-54	20	7	2	0	0	4.6	N	15.6	S	20+	7	6	18	6.6	55
SAN ANGELO	580	947.0	1014.9	20.6	4.4	12.5	-1.1	32.2	28	-10.6	1	1	8	-1.1	45	10	-13	5	5	0	79	51	5.3	S	19.2*	WNW	24	14	5	12	5.1	
SAN ANTONIO	241	990.8	1015.6	22.2	8.3	15.1	-1.1	28.3	28+	-2.2	1	0	2	5.0	57	23	-19	12	6	2	T	0	4.8	SSE	14.8	NW	24	12	3	16	5.6	58
VICTORIA	32	1011.2		22.2	9.4	15.8	-1.5	28.3	24+	-0.6	1	0	1			21	-38	15	3	1	0	0	5.3		19.7Y	NE	14	9	6	16	6.2	
WACO	152	994.8	1016.3	19.4	7.2	13.4	-1.0	28.3	27	-5.6	1	0	3	3.9	58	21	-39	15	4	1	25	25	6.8	SSE	20.6*	WSW	24+	14	3	14	5.2	
WICHITA FALLS	303	977.2	1014.7	18.3	3.3	10.7	-0.8	29.4	28	-10.6	1	0	10	-0.6	51	33	-6	18	3	2	0	0	5.3	S	13.9*	WNW	11	13	9	9	4.6	
UTAH																																
MILFORD	1533	841.5		8.9	-6.1	1.3	-2.3	22.2	27	-17.8	11	0	31			24	-2	7	12	1	318	76						5	13	13	6.4	

See footnotes at end of table

CLIMATOLOGICAL DATA

METRIC UNITS

State and Station	Elevation (ground)	Pressure		Temperature											Average relative humidity	Precipitation							Wind					No of days (sunrise to sunset)			Sky-cover, tenths (sunrise to sunset)	Possible sunshine
												No. of days							No. of days		Snow, Sleet				Fastest mile (1.6 kilometers)							
		Station Ø	Sea level	Average maximum	Average minimum	Average	Departure from normal	Highest	Date	Lowest	Date	Max 32.2 °C or above	Min. 0 C or lower	Average dew point		Total	Departure from normal	Greatest in 24 hours	.25 mm. or more	With thunderstorms	Total	Maximum depth on ground	Average speed	Prevailing direction	Speed	Direction	Date	Clear, 0-3	Partly cloudy, 4-7	Cloudy, 8-10		
	M.	Mb.	Mb.	C.	C.	C.	C.	C.		C.				C.	%	Mm.	Mm.	Mm.			Mm.	Mm.	M.p.s.		M.p.s.							%
UTAH																																
SALT LAKE CITY	1286	866.2	1017.2	7.8	- 4.4	1.7	-2.9	21.1	27	-12.8	13	0	29	- 3.9	71	59	20	21	10	0	643	229	4.7	S	15.2	S	2	7	9	15	6.3	67
WENDOVER	1291	868.9		8.9	- 2.2	3.2	-2.1	21.1	27	- 8.3	1	0	23			9	- 1	4	5	1	56	25						7	13	11	5.9	
VERMONT																																
BURLINGTON	101	1001.2	1016.4	3.9	- 7.2	- 1.7	-0.1	22.2	30	-21.7	3	0	29	- 6.7	56	47	- 6	19	10	0	381	330	3.4	N	13.4	S	12	9	8	14	6.2	67
VIRGINIA																																
LYNCHBURG	289	990.1		10.6	1.1	5.9	-1.6	23.9	30	- 8.3	3	0	14			131	40	32	11	3	589	406	4.1		15.2	SW	30	5	8	18	7.4	49
NORFOLK	8	1014.0	1015.5	11.1	2.2	6.5	-2.4	25.0	30	- 4.4	2	0	10	0.6	68	110	22	37	10	1	30	25	5.5	NNE	18.3	NE	7	7	12	12	6.1	59
RICHMOND	49	1009.5	1016.0	12.8	1.7	7.2	-0.9	28.3	30	- 7.8	4+	0	12	- 0.6	64	124	37	47	11	1	411	279	3.9	NNE	13.9	N	17	5	12	14	6.7	56
ROANOKE	358	972.7	1015.8	11.7	1.1	6.4	-1.1	25.0	30	- 8.9	3	0	13	- 2.8	58	121	31	31	10	2	287	152	4.4	SE	15.6*	SSW	30	5	8	18	7.3	
WASHINGTON																																
OLYMPIA	58	1008.1	1015.7	10.6	- 1.1	4.8	-1.9	20.0	31+	- 6.7	12	0	21	1.1	81	97	- 40	29	18	0	107	203	3.3	SW	13.0*	SW	24+	4	6	21	7.6	
SEATTLE TACOMA	122	1000.3	1014.8	10.6	2.2	6.3	-0.3	19.4	30	- 1.7	28+	0	7	1.1	74	73	- 24	20	19	0	43	178	4.7	S	14.3*	S	23	4	6	21	7.8	
SEATTLE	4		1015.0											2.2	77	0		0					2.1	SE								
SEATTLE U	4			10.6	3.9	7.4	-0.6	21.1	30	0.0	3	0	1			87	3	22	18		56	152			22.4	S	23					41
SPOKANE	718	945.1	1015.3	6.1	- 2.8	1.4	-1.9	16.7	31	-12.2	12	0	27	- 2.8	76	65	27	15	14	0	389	178	4.2	SW	15.6	SW	8	3	4	24	8.1	52
STAMPEDE PASS R	1206	875.4		1.7	- 4.4	- 1.4	-0.3	15.0	31	-10.6	3+	0	30			215	- 54	48	20	0	2365	2997						3	4	24	8.2	
TATOOSH ISLAND	31	1011.2	1014.4	8.3	3.3	5.9	-0.8	15.6	29	- 1.1	2	0	4	2.8	80	159	- 53	33	19	0	231	178	7.4	ENE	23.2	W	8	2	8	21	7.8	46
WALLA WALLA U	289	978.3		11.1	1.7	6.4	-1.4	20.0	31	- 3.9	1	0	13			60	20	17	13	1	46	76	2.5	W#	13.0	W	8	5	7	19	7.3	42
YAKIMA	323	975.6	1015.3	11.1	- 2.2	4.4	-1.1	20.6	31	-10.0	2+	0	23	- 2.8	66	17	1	8	6	0	71	51	3.2	WNW	17.9*	NW	8	5	11	15	7.0	
WEST INDIES																																
SAN JUAN P.R. U	14			27.8	21.1	24.7	0.2	33.3	7	19.4	23+	3	0			59	6	48	6	1	0	0										
SAN JUAN P.R.	5	1012.6	1015.6	28.9	20.0	24.3	0.2	33.3	7	16.1	23	3	0	18.9	75	25	- 31	11	7	1	0	0	3.3	ENE	12.5Y	NE	31	14	11	6	5.0	55
SWAN ISLAND	9	1011.7		28.9	23.9	26.3	-0.4	30.0	30+	21.1	8	0	0			33	17	14	5		0	0						9	20	2	4.9	
WEST VIRGINIA																																
CHARLESTON	286	979.3	1015.4	11.7	1.7	6.4	-0.4	25.0	29	- 7.8	2	0	13	- 1.7	62	99	- 11	32	12	1	216	178	3.3	WSW	9.8*	WSW	21	3	6	22	7.9	
HUNTINGTON U	252	984.9	1016.3	10.0	0.6	5.4	-2.1	25.0	29	-10.0	2	0	14	2.2	68	116	10	36	14	2	127	51	3.3	NE	9.8*	WSW	21	5	4	22	8.0	
PARKERSBURG U	189			10.6	0.0	5.4	-0.6	26.1	29	-11.7	2	0	15			126	37	37	15	3	132	102	3.2		9.8	W	13					43
WISCONSIN																																
GREEN BAY	208	994.9	1018.6	1.7	- 6.7	- 2.6	-0.2	14.4	28	-33.9	1	0	30	- 6.1	77	29	- 5	13	13	1	170	483	3.4	NE	11.2	NE	11	6	7	18	6.9	45
LA CROSSE	199	992.2		3.3	- 6.1	- 1.6	-0.7	18.9	28	-33.3	1	0	30	- 5.6	76	49	- 4	24	10	1	531	559	4.0	SE	12.5*	WNW	29	5	6	20	7.5	
MADISON	262	980.8	1017.5	2.8	- 5.6	- 1.4	-0.1	21.1	28	-33.9	1	0	29	- 5.0	76	44	- 3	22	6	1	178	406	4.4	WNW	14.8	S	28	3	7	21	7.9	50
MILWAUKEE	204	992.6	1018.5	2.2	- 4.4	- 0.9	-0.4	19.4	28	-23.3	1	0	28	- 3.3	83	43	- 16	16	10	1	290	356	5.0	NNE	16.5	S	28	5	3	23	7.9	40
WYOMING																																
CASPER	1621	833.1	1014.4	5.0	- 7.2	- 0.9	-1.0	17.8	27	-19.4	13	0	29	- 7.8	65	14	- 12	5	9	0	203	76	6.8	SW	17.4*	WSW	27	7	12	12	6.2	
CHEYENNE	1867	808.0	1014.9	4.4	- 7.8	- 1.7	-1.6	17.8	27	-15.6	13+	0	30	-10.0	57	10	- 21	4	8	0	140	102	6.7	WNW	20.6	NW	25	10	9	12	5.7	65
LANDER	1696	830.7		6.1	- 6.7	- 0.4	-0.5	18.3	27	-16.1	1	0	30	- 9.4	52	14	- 15	8	6	0	221	102	3.4	SW#	19.2	SW	2	7	16	8	5.7	81
SHERIDAN	1202	881.8	1011.9	4.4	- 8.3	- 1.9	-1.4	20.6	27	-22.2	3+	0	30	- 7.2	69	17	- 19	11	6	0	180	102	3.3	NW	18.8	NW	30	4	10	17	6.8	68

Data from airport unless otherwise specified. U indicates Urban, R indicates Rural, sites.

* Data entered in column "Fastest Mile" is the fastest mile observed. This station is not equipped with automatic wind recording instrument.

A Maximum hourly average.

+ And also on an earlier date or dates.

Ø Station pressures apply to elevations shown in the "Elevations - Station Pressure" table of the annual issue of this publication.

B Number of days maximum 21.1 C. or above for Alaskan Stations.

# Wind direction to 8 compass points only.

Y Peak Gust.

Data in this table is obtained by conversion from data in the English Units table.

HEATING DEGREE DAYS

(Base 65 F.)

MARCH 1962

State and station	Current season		Normals
	This month	Period July through this month	July through this month
ALABAMA			
Birmingham	398	2354	2622
Huntsville	521	2901	
Mobile	270	1496	1565
Montgomery	330	1903	2057
ALASKA			
Anchorage	1394	9728	8964
Annette	903	5591	5607
Barrow	2437	15118	15673
Barter Island	2446	15424	
Bethel	1540	11000	10587
Cold Bay	1042	7516	7393
Cordova	1229	8205	7601
Fairbanks	1765	12928	12336
Juneau	1095	7519	7223
King Salmon	1513	9996	9176
Kotzebue	1923	12631	12867
McGrath	1670	12775	12261
Nome	1614	11392	11220
St. Paul	1198	8445	8163
Shemya	982	7135	
Yakutat	1174	7697	7361
ARIZONA			
Flagstaff	1135	6419	6161
Phoenix (U)	255	1468	1430
Phoenix	277	1618	1624
Prescott	748	4192	3984
Tucson	357	1950	1692
Winslow	712	5091	4215
Yuma	149	942	937
ARKANSAS			
Ft. Smith	501	3313	3037
Little Rock	471	3047	2842
Texarkana	395	2541	2278
CALIFORNIA			
Bakersfield	349	2498	1989
Bishop	695	3980	3725
Blue Canyon	929	4531	4523
Burbank	327	1510	1549
Eureka (U)	517	3770	3543
Fresno	392	2739	2344
Long Beach	346	1529	
Los Angeles (U)	298	1285	1235
Los Angeles	344	1494	1653
Mt. Shasta (R)	815	4950	4833
Oakland	396	2461	2550
Point Arguello (R)	484	2892	
Red Bluff	426	2571	2318
Sacramento (U)	375	2538	2314
Sacramento	425	2762	2490
Sandberg (R)	784	3998	3491
San Diego	280	1222	1283
San Francisco (U)	376	2381	2362
San Francisco	444	2615	2666
San Jose (U)	362	2107	1998
Santa Maria	461	2466	2277
COLORADO			
Alamosa	1178	7554	7317
Colorado Springs	967	6217	5317
Denver	934	6119	5256
Grand Junction	819	5528	5226
Pueblo	864	5568	5023
CONNECTICUT			
Bridgeport	825	4808	5048
Hartford	854	5468	5379
Middletown	917	4920	
New Haven	824	4892	5146
DELAWARE			
Wilmington	729	4526	4398
DIST. OF COLUMBIA			
Washington (U)	588	3810	3864
Washington	642	3960	3923
FLORIDA			
Apalachicola (U)	199	1109	1274
Daytona Beach	179	759	857
Fort Myers	42	257	405
Jacksonville	206	1095	1220
Key West	1	47	77
Lakeland (U)	109	499	649
Miami	30	159	178
Miami Beach	15	96	123
Orlando	111	503	650
Pensacola (U)	245	1329	1390
Tallahassee	253	1392	1481
Tampa	106	493	674
West Palm Beach	39	206	248
GEORGIA			
Athens	491	2686	2657
Atlanta	525	2801	2673
Augusta	408	2239	2076
Columbus	391	2072	2299
Macon	364	1961	1987
Rome	535	3054	2952
Savannah	316	1741	1667
Thomasville (U)	258	1349	1434
IDAHO			
Boise	812	5687	5096
Idaho Falls 46W (R)	1203	7675	7319
IDAHO (Cont'd.)			
Idaho Falls 42NW (R)	1295	8101	7666
Lewiston	724	4964	4785
Pocatello	1003	6571	5962
ILLINOIS			
Cairo (U)	630	3737	3527
Chicago (Midway)	935	5773	5516
Chicago (O'Hare)	970	6069	
Moline	999	6109	5667
Peoria	960	6037	5419
Rockford	1038	6423	
Springfield	855	5372	5086
INDIANA			
Evansville	667	4287	4013
Ft. Wayne	897	5702	5492
Indianapolis	839	5199	4973
South Bend	955	5859	5683
IOWA			
Burlington	970	5960	5463
Des Moines	1086	6687	5762
Dubuque	1109	6883	6385
Sioux City	1215	6882	6256
Waterloo	1203	7000	6341
KANSAS			
Concordia (U)	871	5435	4816
Dodge City	739	4920	4561
Goodland	915	5876	5534
Topeka	803	5377	4731
Wichita	665	4711	4183
KENTUCKY			
Lexington	718	4278	4456
Louisville	694	4211	4055
LOUISIANA			
Alexandria	357	2096	
Baton Rouge	275	1600	1547
Lake Charles	264	1498	1503
New Orleans(Audubon)	229		
New Orleans	250	1320	1286
Shreveport	356	2183	2056
MAINE			
Caribou	1054	7561	8551
Greenville (U)	1165	7654	
Portland	976	6249	6477
MARYLAND			
Baltimore (U)	649	3949	3804
Baltimore	704	4385	4289
Frederick	792	4772	4380
MASSACHUSETTS			
Blue Hill Obs. (R)	901	5446	
Boston	814	4899	4979
Nantucket	866	4654	4927
Pittsfield	999	6296	6563
Worcester	943	5874	
MICHIGAN			
Alpena	1169	7110	6739
Detroit (City AP)	922	5556	5535
Detroit (M. Wayne Co.)	978	5782	
Detroit (Willow Run)	922	5821	5618
Escanaba (U)	1155	7144	7216
Flint	1021	6227	6143
Grand Rapids	997	5995	6089
Lansing	1023	6220	
Marquette (U)	1128	7102	7074
Muskegon	1022	5884	5981
S. Ste. Marie	1149	7568	7906
MINNESOTA			
Duluth	1255	8488	8439
Internat. Falls	1209	9016	9158
Minneapolis	1248	7649	6944
Rochester	1266	7668	7105
St. Cloud	1213	7990	7793
MISSISSIPPI			
Jackson	387	2251	2121
Meridian	401	2293	2239
Vicksburg (U)	379	2198	1929
MISSOURI			
Columbia	808	4993	4638
Kansas City	766	4928	4477
St. Joseph	888	5721	4869
St. Louis (RFC)	733	4364	4098
St. Louis	783	4718	4290
Springfield	719	4474	4264
MONTANA			
Billings	1094	6828	6119
Butte	1330	8682	8070
Glasgow	1410	8364	7668
Great Falls	1208	7319	6409
Havre	1373	8121	7178
Helena	1104	7321	7000
Kalispell	1089	7443	6810
Miles City	1199	7387	6889
Missoula	1048	7375	6723
NEBRASKA			
Grand Island	1122	6422	5654
Lincoln (U)	989	6014	5284
Norfolk	1201	6882	6253
North Platte	1017	6407	5755
Omaha	1020	6230	5564
Omaha N. Omaha AP	1087	6589	
Scottsbluff	981	6328	5888
Valentine	1196	6874	6161
NEVADA			
Elko	974	6527	6162
Ely	1098	6779	6186
Las Vegas	420	2740	2333
Reno	780	5441	5034
Tonopah	875	5431	4946
Winnemucca	890	6006	5413
NEW HAMPSHIRE			
Concord	954	6088	6554
Mt. Washington Obs. (R)	1622	10546	
NEW JERSEY			
Atlantic City	743	4280	
Atlantic City (U)	768	3896	4060
Newark	705	4427	4643
Trenton (U)	722	4452	4495
NEW MEXICO			
Albuquerque	730	4362	4030
Clayton	766	4926	4510
Raton	949	5709	5495
Roswell	537	3661	3211
Silver City	660	3672	
NEW YORK			
Albany	933	5856	6069
Binghamton	1049	6336	6459
Buffalo	1002	5785	5815
New York (U)	675	4178	4423
New York (LaGuardia)	735	4307	4391
Rochester	969	5732	5905
Schenectady	920	5732	6180
Syracuse	937	5630	5666
NORTH CAROLINA			
Asheville (U)	664	3603	3677
Cape Hatteras (R)	563	2502	2196
Charlotte	512	2957	3004
Greensboro	630	3589	3519
Raleigh	598	3341	3126
Wilmington	449	2366	2212
Winston-Salem	587	3439	3440
NORTH DAKOTA			
Bismarck	1289	8140	7905
Devils Lake (U)	1416	9076	8659
Fargo	1304	8403	8148
Grand Forks CAA	1391	8706	
Pembina	1445	9228	
Williston (U)	1358	8364	7907
OHIO			
Akron	928	5472	5381
Cincinnati (U)	692	4223	4110
Cincinnati	747	4460	4631
Cincinnati Obs.	744	4570	4378
Cleveland	958	5414	5206
Columbus	866	5257	4960
Columbus (U)	803	4890	4694
Dayton	865	5208	4944
Mansfield	952	5613	
Sandusky (U)	914	5214	5088
Toledo	924	5800	5534
Youngstown	952	5705	5344
OKLAHOMA			
Oklahoma City	524	3651	3422
Tulsa	586	3933	3367
OREGON			
Astoria	667	4248	3957
Burns (U)	932	6370	5858
Eugene	625	4135	3961
Meacham	1026	6603	6317
Medford	625	4452	3890
Pendleton	660	4708	4570
Portland (U)	573	3633	3527
Portland	605	3968	3901
Roseburg	576	3971	3777
Salem	647	4236	3826
Sexton Summit (R)	894	5212	4876
PENNSYLVANIA			
Allentown	800	5203	5196
Erie	977	5442	5535
Harrisburg	791	4853	4693
Philadelphia (U)	645	3992	4061
Philadelphia	748	4759	4360
Pittsburgh (U)	791	4591	4496
Pittsburgh	873	5187	5188
Reading (U)	717	4478	4515
Scranton	874	5530	5300
Williamsport	846	5228	5215
RHODE ISLAND			
Block Island	881	4764	4809
RHODE ISLAND (Cont'd.)			
Providence	840	5016	5239
SOUTH CAROLINA			
Charleston (U)	347	1693	1726
Charleston	363	1968	1910
Columbia	430	2362	2352
Florence	421	2379	2424
Greenville	486	2736	2867
Spartanburg	497	2873	2866
SOUTH DAKOTA			
Huron	1367	7815	6985
Pierre	1295	7211	
Rapid City	1121	6665	6415
Sioux Falls	1245	7312	6934
TENNESSEE			
Bristol	622	3633	3779
Chattanooga	523	3028	3160
Knoxville	556	3323	3344
Memphis (U)	530	3085	2855
Memphis	543	3153	2974
Nashville	605	3458	3284
Oak Ridge	583	3459	3743
TEXAS			
Abilene	379	2624	2544
Amarillo	563	3962	3948
Austin	243	1697	1663
Brownsville	79	570	617
Corpus Christi	142	988	1005
Dallas	338	2384	2197
Del Rio (U)	163	1421	
El Paso	433	2693	2531
Ft. Worth	345	2475	2266
Galveston (U)	166	1111	1181
Galveston	171	1146	1205
Houston (U)	137	982	1249
Houston	209	1275	1352
Laredo	102	920	781
Lubbock	535	3500	3350
Midland	394	2683	2467
Port Arthur	230	1420	1478
San Angelo	331	2401	2045
San Antonio	206	1493	1545
Victoria	178	1239	1112
Waco	282	2042	1959
Wichita Falls	427	2998	2869
UTAH			
Milford	941	6085	5583
Salt Lake City	921	5911	5099
Wendover	835	5618	
VERMONT			
Burlington	1109	6839	6805
VIRGINIA			
Lynchburg	684	3921	3777
Norfolk	655	3375	3130
Richmond	623	3764	3618
Roanoke	658	3828	3782
WASHINGTON			
Olympia	748	4742	4482
Seattle (U)	603	3679	3689
Seattle	643	3949	3975
Seattle-Tacoma	668	4242	4336
Spokane	932	6224	5815
Stampede Pass (R)	1095	7353	7238
Tatoosh Island (R)	683	4594	4432
Walla Walla	660	4732	
Walla Walla (U)	683	4543	4301
Yakima	768	5365	5179
WEST VIRGINIA			
Charleston	656	4055	3989
Huntington (U)	709	4007	3732
Parkersburg (U)	718	4368	4271
WISCONSIN			
Green Bay	1161	7369	7109
La Crosse	1105	6958	6774
Madison	1093	7023	6486
Milwaukee	1067	6553	6124
WYOMING			
Casper	1072	7109	6451
Cheyenne	1106	6895	6210
Lander	1038	7748	7057
Sheridan	1127	6359	6710

Data from airport unless otherwise specified.
U indicates Urban, R indicates Rural, sites.

GREAT ATLANTIC COAST STORM, 1962

MARCH 5-9

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A slow moving late winter coastal storm combined with spring tides (maximum range) wrought tremendous destruction to coastal installations from southern New England to Florida on March 6-9. This storm, which consisted of a series of LOWS, has been described as one of the most damaging extratropical cyclones to hit the United States coastline. Although gale force winds, and at times hurricane force winds, accompanied the storm, this is not unusual for a North Atlantic winter extratropical cyclone. It was the long fetch and the persistence of these strong northeasterly winds which raised the spring tides to near record levels. The tidal flooding which attended this storm was in many ways more disastrous than that which accompanies hurricanes. The storm surge in tropical cyclones generally recedes rapidly after 1 or 2 high tides, but the surge accompanying this storm occurred in many locations on 4 and 5 successive high tides. In addition to this, many places reported run-up of waves 20 to 30 ft. high.

This successive onslaught of wave and tidal action for over two days weakened and undermined even the more permanent shoreline structures, and after a period of time some suffered structural damage and collapsed. Needless to say many of the less sturdy summer cottages on the exposed coast were washed away completely.

The erosive effect of wave and tidal action changed the face of the immediate coastline, and on many of the well-known beaches the most severe loss was often the sand of the beach itself. In addition many new channels and inlets were cut in the shoreline. It may be many months before new surveys of the topography and hydrography of the area reveal all the numerous changes.

Preliminary estimates of damage total about $200 million; 1,793 dwellings were destroyed, 2,189 sustained major damage, and 14,593 minor damage. Thirty-three persons are known dead; 340 received major injuries and 912 minor injuries.

The coastal area off Hatteras lived up to its reputation as the birthplace of extratropical cyclones and the graveyard of ships. This storm, although it first appeared as a wave on the polar front on the 4th off the Florida coast, did not deepen to any extent until it reached the Hatteras area where it claimed the Liberian tanker GEM, 9,260-gross tons, which split in two 100 mi. southeast of Cape Hatteras with the loss of one life.

When the coastal storm started to form as a wave on the polar front off the Atlantic coast of Florida on the 4th, the dominating features on the weather map were a strong blocking HIGH centered over the Canadian Arctic Archipelago with a ridge extending south-southeastward over the Middle Atlantic States and a moderate LOW located over the upper Mississippi Valley. On the 5th the interior LOW with a very deep circulation aloft (figure 1) moved along the southern fringes of the Canadian HIGH to the Ohio Valley, where the surface LOW began to dissipate (figure 3). In the meantime, a wide area of low pressure with several separate centers had developed between the Carolina coast and the wave off the Florida coast. The deep LOW aloft which was associated with the dissipating interior LOW continued its eastward movement, and by the 6th it was located over the Carolina coast (figure 2). This triggered the intensification of the coastal LOW which still consisted of several ill-defined centers (figure 4). The usual northeastward movement of such a system was retarded by the presence of the blocking HIGH which was now centered near Labrador. On the 7th and 8th this HIGH continued to move southward toward northern New England, as the intensifying coastal storm started to drift east-northeastward. This resulted in the LOW elongating in a roughly east-west direction with a very steep pressure gradient. Figure 5 shows the long fetch of the northeasterly winds set up by the configuration of this elongated LOW. This type of pattern persisted from late on the 6th to the 8th, and the resulting strong northeasterly winds piled up additional water on top of the high spring tides and created mountainous seas which pounded savagely at the coastline.

Figure 6 shows a significant wave height of more than 40 ft. at 0000 GMT of the 8th. The cause of such high seas from the east, close off the not-too-well-protected Middle Atlantic Coast, can be found in the slow movement of the system and its elongated shape. Furthermore, the westward traveling seas were already set up, by the previous LOW, across the entire ocean to Europe, and no time was needed for the easterly winds to break down and rebuild waves traveling in the opposite direction.

The pressure gradient near the center of the system was not very steep, and the lowest pressure recorded was only about 979 mb. which is deep for an extratropical LOW in the western North Atlantic, but not too unusual. Within this "shallow" and fairly large region of the lowest pressures, two or three separate low pressure cells could be detected during the first few days of the storm by analyzing the wind and pressure data received from ships in the area. These cells appeared to rotate within the primary system with the forward one often weakening and a cell toward the rear generating and taking over. This caused the movement of the system as a whole to be rather erratic, and at times the storm appeared to move backward or loop. Any single track is thus difficult to construct.

Precipitation was heavy over the Middle Atlantic Coast with interior portions of Virginia and Maryland receiving up to three feet of snow accompanied by some thunderstorm activity during the development stage of the storm. As the LOW became more mature, only light precipitation fell to the north of it, and in New England the storm was known as a "dry northeaster". Much of the driving energy was probably caused by the transformation of potential energy stored in the large warm HIGH into kinetic energy along the steep pressure gradient of this LOW.

Several ships were in difficulty in this storm. The 500-ft. molasses tanker, GEM, was a total loss as it broke in two off Cape Hatteras. A passing Danish freighter, the JYTTE SKOU, saw distress flares from the broken ship and sent an S O S to the Coast Guard. Seven men aboard the forward half of the split tanker were rescued by the cruise ship VICTORIA. An eighth man, the GEM's second mate, had been crushed to death during an attempt to launch one of the lifeboats. The Navy destroyers, the HUNTINGTON, the NOA and the STRIBLING stood by the stern section of the GEM and rescued 27 men including a frightened stowaway who had slipped aboard in the Dominican Republic.

Another ship in trouble was the CHUN LEE which was adrift after having lost her rudder 60 mi. east of Cape Hatteras. The British motor vessel WHATATANE was standing by while the heavy cruiser NORTHAMPTON and the Coast Guard cutter CHILULA fought the mountainous seas to reach her. The A. H. DUMONT was plagued by shifting cargo and a damaged steering gear about 200 mi. off the Virginia Capes. The cutters, the ABSECON and the HALF MOON, and the salvage vessel CABLE were sent to aid. The SOONER STATE reported that her deck cargo of lumber shifted in heavy seas and caused a severe list to port. However, she said she was in no immediate danger and was proceeding toward Cape Henry, Va. The lightship CHESAPEAKE was also damaged off Hampton Roads and had to leave station. The lightship RELIEF was dispatched by the Coast Guard to take its place.

The following state-by-state survey is a summary of State Climatologists' reports. Meteorological and tidal information appears in the table.

NEW ENGLAND.--Central and northern New England escaped relatively lightly the effects of the coastal storm. Seas came crashing over walls along all parts of the coast south of Portland, Maine. Low-lying coastal highways were flooded and closed to traffic as tides ran up to 5 ft. above normal. Damage to seawalls was slight along the Maine coast but was heavier along the New Hampshire shore. Complete sections of old seawalls were washed out at the New Hampshire resort towns of Rye, North Hampton, and Hampton. Some structural damage to waterfront installations, mostly of minor nature, occurred in New Hampshire and Massachusetts, and many cellars in low-lying districts were flooded. Most damage in Connecticut and Rhode Island was confined to beaches along the south coast and Block Island. There was some flooding in low susceptible places in Bridgeport, East Haven, and Greenwich, and the Quinnipiac River overflowed in North Haven doing some damage. An oyster boat and barge were sunk near New Haven. The highest winds reported on the East Coast occurred at Block Island. The Weather Bureau Airport Station recorded a peak gust of 84 m.p.h. and a sustained wind of 76 m.p.h. on the morning of the 6th.

Preliminary damage figures for the New England States: Maine, $25,000; New Hampshire, $75,000; Massachusetts, $250,000; Rhode Island and Connecticut, $1 million. No lives were reported lost in the New England area.

NEW YORK.--The strong winds pushed the ocean waters onshore, producing severe flooding. At the time of high tides on the 6th and part of the 7th, the waters reached between 4 ft. above mean sea level along the eastern end of Long Island and 7 ft. above in New York Harbor. On top of the high water the storm sent huge waves, estimated at 20 ft. high in places, to break against beachfront installations. Damage was greatest on the south shores of Richmond, Brooklyn, and Queens Boroughs in New York City, and along the barrier beaches of Nassau and Suffolk County, eastward to Montauk Point. On Long Island's South Shore about 100 houses were swept into the sea, 35 of them on Fire Island alone. Numerous other buildings suffered water damage, and cellars, streets, and highways in waterside areas were flooded. There was also wind damage to utility lines, trees, signs, and windows, but these losses were comparatively minor.

Preliminary and unofficial damage estimates are in the $10-$15 million range. Fortunately, no loss of life or injuries were directly attributable to the storm, although many families were forced to evacuate threatened dwellings.

NEW JERSEY.--In this State, as in others along the coast, the major damage was restricted to property facing the beach itself. The entire coastline and even the Delaware Bay area suffered from the high tides. Highways along the coast were cut in many places or buried under several feet of sand. Thousands of homes along the coast were damaged or destroyed. One of the hardest hit areas was Long Beach Island. At Atlantic City the major damage was the cutting of the famed Steel Pier. The storm swept away the quarter-mile section of the pier which connects the auditorium at the end of the pier with the mainland boardwalk. A Navy destroyer, the MONSSEN, was beached about a half mile north of Beach Haven after breaking its tow. The destroyer was unmanned and was being towed to Philadelphia from Bayonne Navy Yard. Another destroyer, the PENOBSCOT, ran aground a little farther south.

The storm did an estimated $80 million damage in New Jersey. Deaths mounted to 14 with 12 other persons, including 9 aboard 2 fishing trawlers, missing and presumed dead.

DELAWARE AND MARYLAND.--The Atlantic coast resort towns bore the brunt of the storm in these States. Four or five consecutive high tides with 20-30-ft. waves right against the coast caused serious beach erosion and destruction of shoreline property along the Delmarva Peninsula from Cape Henlopen to Cape Charles. At Rehoboth Beach, Del., and Ocean City, Md., complete destruction to severe damage was inflicted to many resorts on the immediate coast while tidal flooding occurred farther inland. Tides at Ocean City were estimated to be 5 to 6 ft. above normal. Needless to say, the boardwalks were reduced to splinters early in the storm. While the damage to buildings is a tragedy to the owners, of more importance is the loss of the beach itself at those resorts where much of the sand was washed away. This may well be a real handicap in returning to their former status. Less serious flooding occurred in the Bay areas. The rain-soaked soil of late winter probably prevented severe damage to inundated farmlands farther inland or in the Bay areas. It is estimated that from 1.2 to 1.5 million broiler chickens and an unknown number of incubator eggs were lost chiefly due to power failures in the Delmarva production area.

Preliminary estimates on damage for the Delaware-Maryland shore are about $50 million. Seven deaths were reported in Delaware and 3 in Maryland.

VIRGINIA.--The intense coastal storm brought as severe damage to the Atlantic coastline of Virginia as any extratropical storm in modern times. The resort areas near Virginia Beach in particular had heavy property losses. Many hundreds of homes on the beaches were totally destroyed and thousands were damaged. The fishing pier at Virginia Beach was destroyed. The largest pile driver in the world, a $1 1/2 million machine, was turned over on its side in deep water. One of the communities hardest hit along the Virginia section of the Delmarva Peninsula was Chincoteague Island. Extensive damage was done to the fishing boats and nets, homes and livestock. "Misty" of Chincoteague, pony heroine of a book and recent movie, weathered the storm but many other ponies on Chincoteague were less fortunate and drowned. More than 1,000 persons were airlifted by helicopter to the mainland during the storm. The NASA installation on Wallops Island also suffered considerable damage. High tides inundated large areas inside the Bay, and sections of Hampton Roads were under several feet of water. The 8.9 ft. tide above mean low water, 5.6 ft. above normal, was the highest tide caused by any extratropical cyclone and the third highest of record. More than 1,000 automobiles were flooded in the metropolitan area alone. The Chesapeake Lightship of the Coast Guard while on station at 36° 59'N., 75° 42'W. or 17 mi. east of Cape Henry Lighthouse was damaged by a 50-ft. wave early on the 7th and forced to leave the station. At this time sustained winds were above hurricane force.

Damage in Virginia is estimated at $30 million; however, the full extent is not yet known. In the city of Virginia Beach alone, damage amounted to about $16 million. Five deaths were reported in Virginia.

NORTH CAROLINA.--The most destructive effects of the storm took place on Hatteras Island and northward. On the entire stretch to the Virginia line, a large percentage of the protective sand dunes along the ocean side of the elongated islands which constitute the Outer Banks were washed flat. A 200-ft. wide inlet was cut, by waves and strong currents at the change of the tides, across Hatteras Island about 2 mi. north of Buxton. The highway along the shore was destroyed or undermined in many places or covered with sand up to several feet deep. Many cars were stranded with only the rooftops appearing above the sand. Most of the damage to private property occurred in the Kill Devil Hills - Kitty Hawk - Nags Head area north of Oregon Inlet where many motels and summer homes suffered.

Preliminary damage figures are estimated at $12 million which does not include the devastation to the land itself. Two deaths were reported in North Carolina.

SOUTH CAROLINA.--Damage from the coastal storm in this State was mainly limited to tidal flooding and some beach erosion. A few cottages along the beaches were destroyed and others damaged. All beaches along the coast suffered in varying degrees from loss of sand in certain sections. Folly Beach is estimated to have lost 100 to 200 ft. in width for one-quarter mile in an uninhabited area near the east end. Three persons were rescued by the ESSO GREENVILLE from the sinking 40-ft. yacht GUINEVERE in the storm-tossed Atlantic about 200 mi. southeast of Charleston. One drowning occurred on the Santee-Cooper Lakes.

GEORGIA.--There were no reports of significant damage along the Georgia coast attributed to this storm. No deaths were reported.

FLORIDA.--Strong northerly winds were experienced throughout the State on March 5-6 and to a lesser extent on the 7th. These winds were associated with an outbreak of cold air over the Gulf of Mexico and the developing coastal storm off the Atlantic coast. Extensive drifting of sand occurred at many coastal locations and several smaller vessels were in distress. The large British vessel, ARTHUR ALBRIGHT, was blown aground about 2 mi. off Port Tampa in gale force winds while heading into port. As the winds quieted down on the evening of the 7th, rising tides and heavy ground swells began to affect the south-central portion of the Atlantic coast. The most severe conditions were reached on the 8th. By then the wind had died down, but huge swells building up to about 20 ft. near the shore on top of above-normal tides came thundering against the beaches and seawalls. There was some damage due to beach erosion and flooding of oceanfront properties. Several hotels had the lower lobbies flooded and lost cabanas and outdoor furniture. Many docks and city streets were destroyed or damaged.

Preliminary damage figures are put at about $1 million. No deaths are directly attributable to the coastal storm.

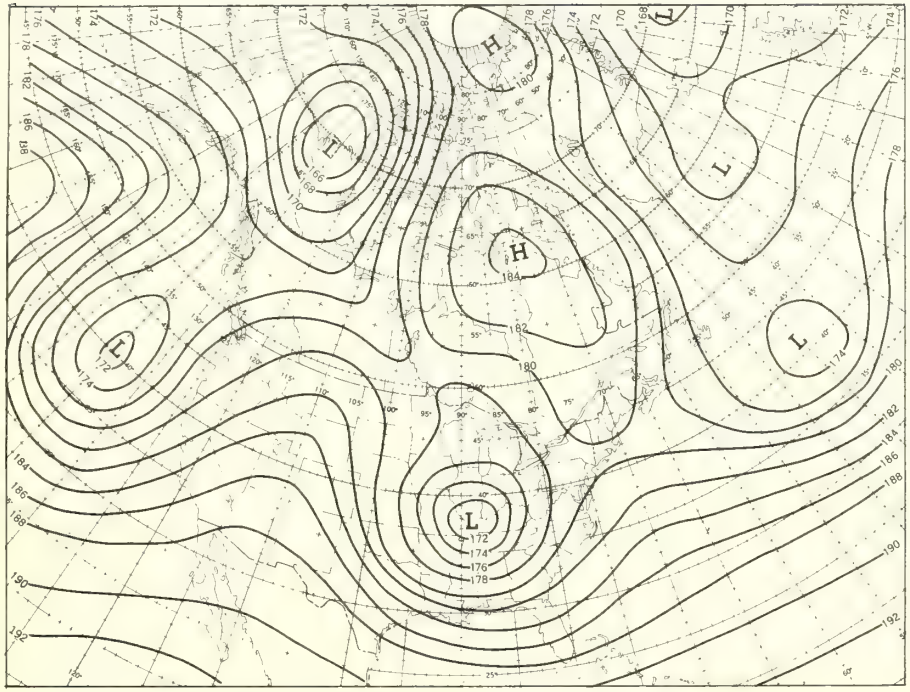

Fig. 1 Upper air chart showing the height of the 500 mb. pressure level in 100s of feet at 1200 GMT March 5, 1962.

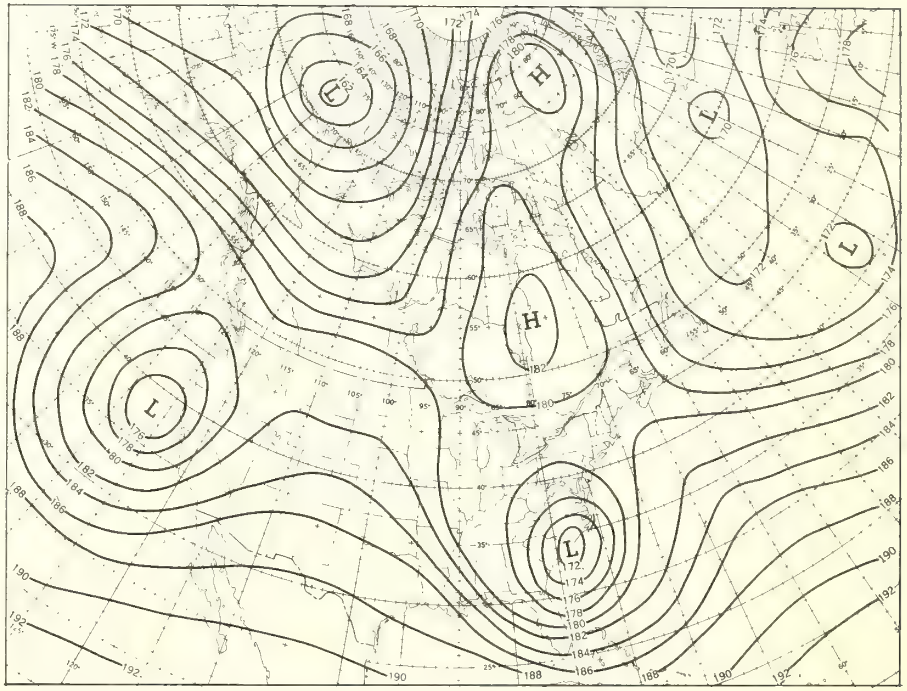

Fig 2 Upper air chart showing the height of the 500 mb pressure level in 100s of feet at 1200 GMT March 6, 1962.

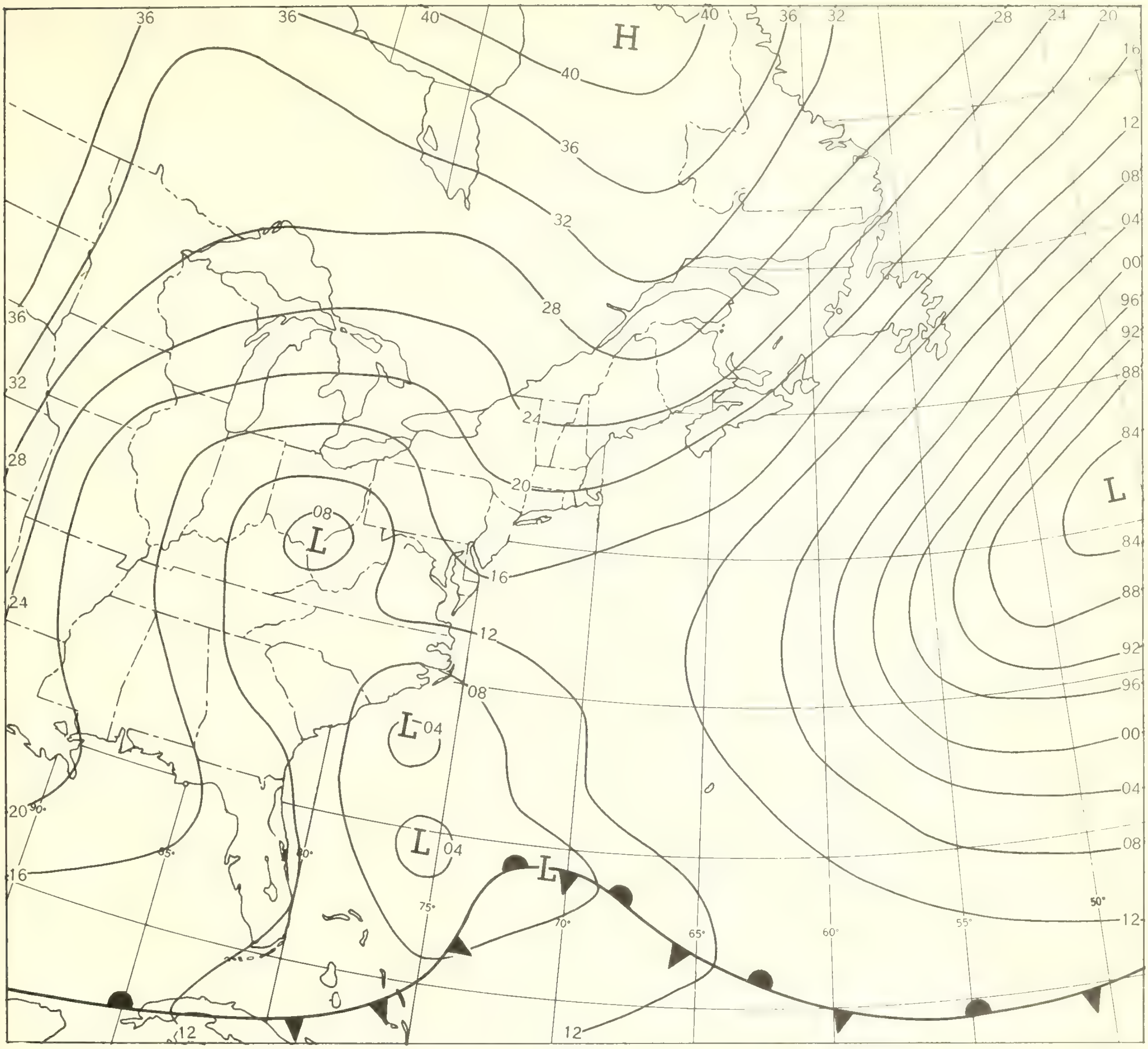

Fig. 3 Sea level pressure chart (mb.) at 1200 GMT March 5, 1962.

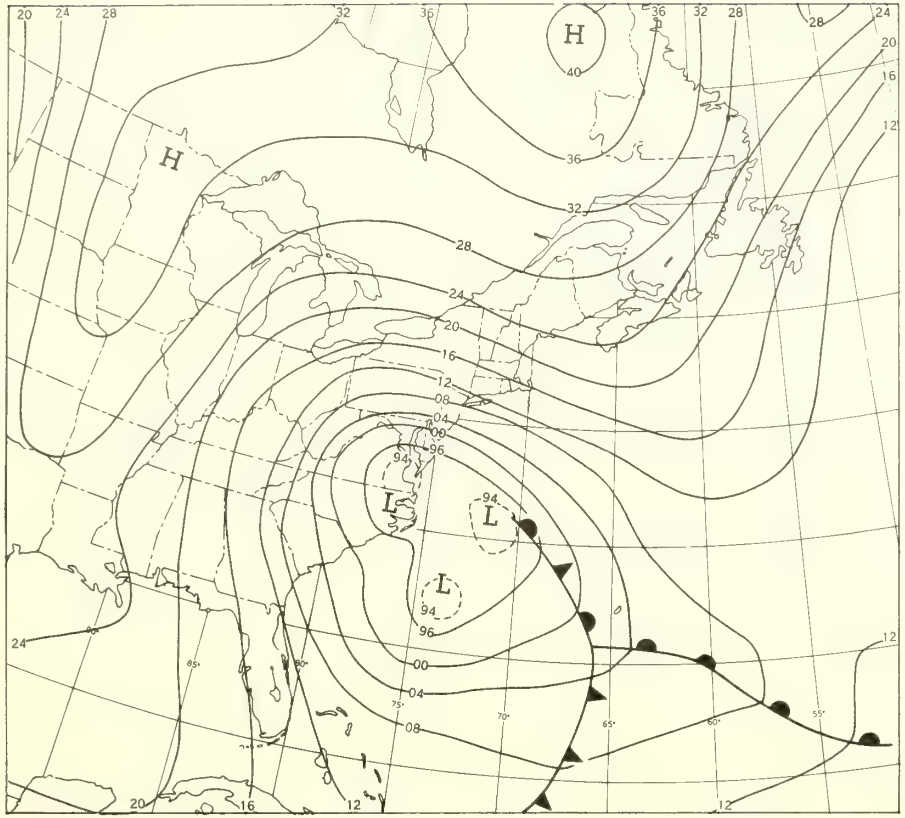

Fig. 4 Sea level pressure chart (mb.) at 1200 GMT March 6, 1962.

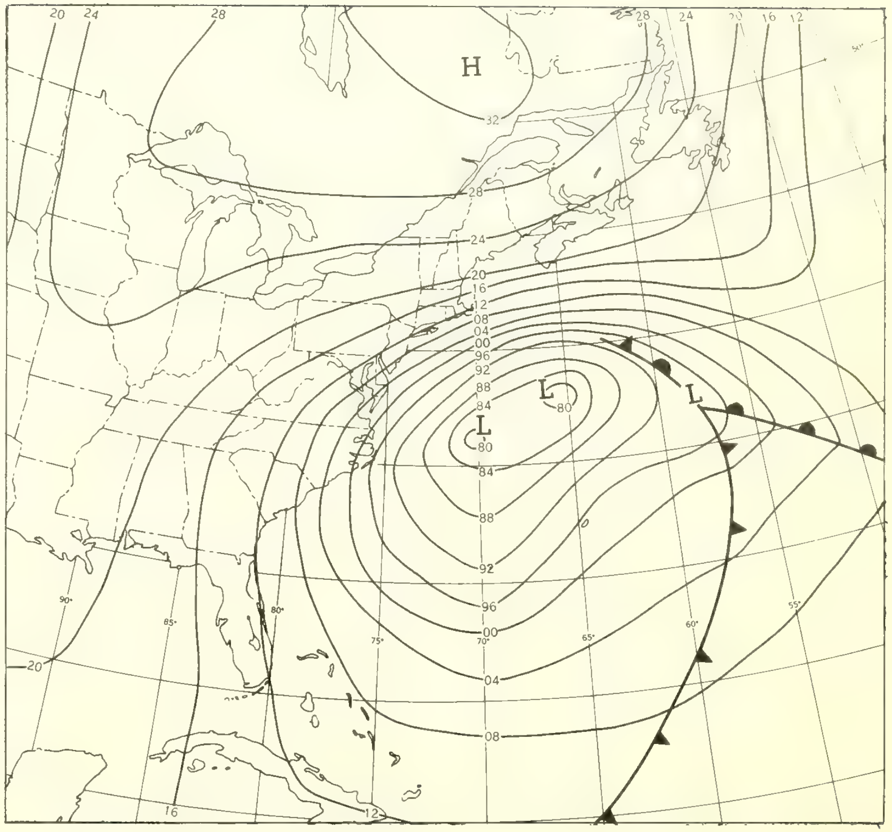

Fig. 5 Sea level pressure chart (mb.) at 1200 GMT March 7, 1962.

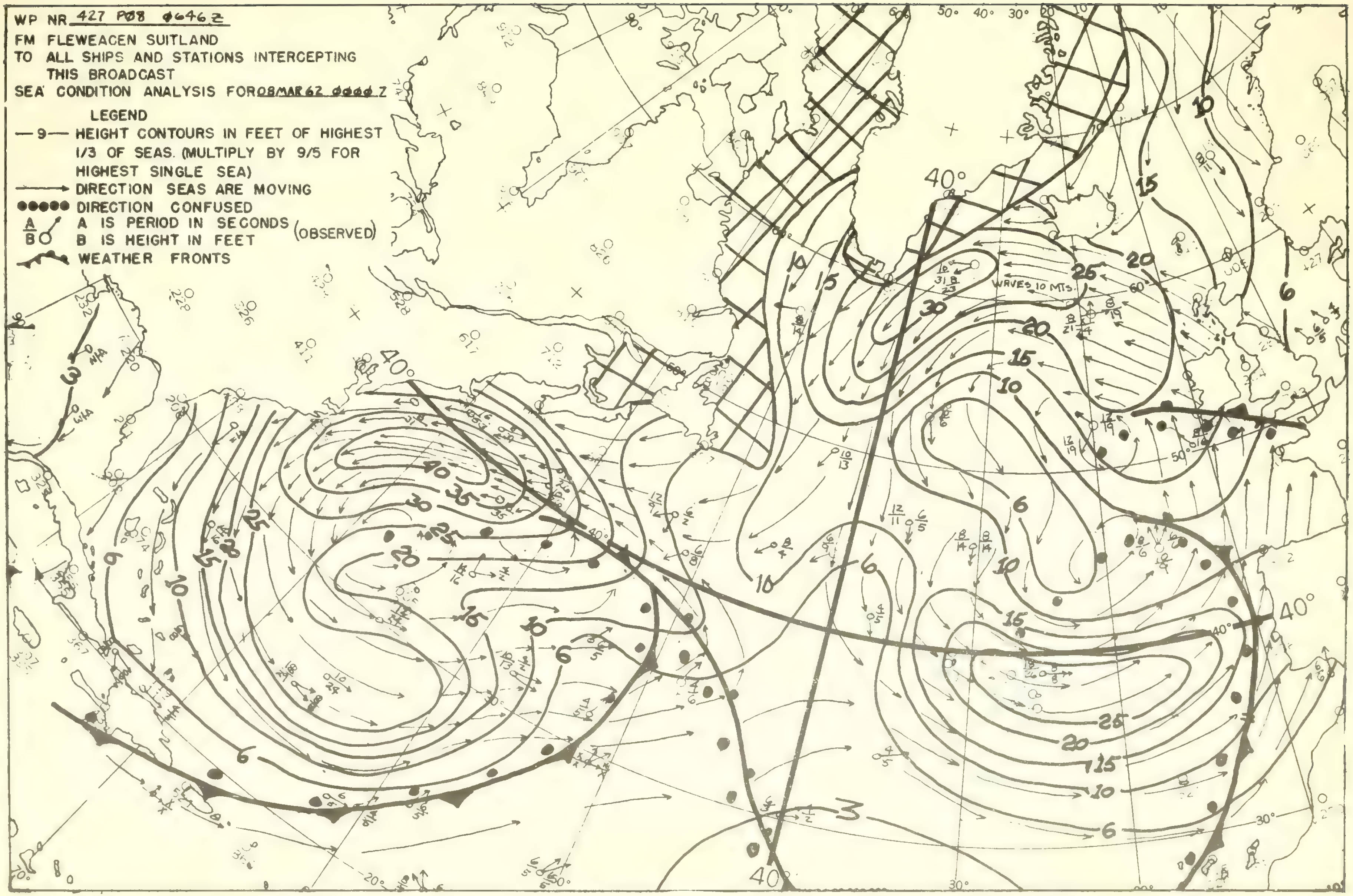
WP NR 427 P08 0646Z
FM FLEWEACEN SUITLAND
TO ALL SHIPS AND STATIONS INTERCEPTING THIS BROADCAST
SEA CONDITION ANALYSIS FOR 08MAR62 0000Z
LEGEND
—9— HEIGHT CONTOURS IN FEET OF HIGHEST 1/3 OF SEAS. (MULTIPLY BY 9/5 FOR HIGHEST SINGLE SEA)
DIRECTION SEAS ARE MOVING
DIRECTION CONFUSED
A/B A IS PERIOD IN SECONDS, B IS HEIGHT IN FEET (OBSERVED)
WEATHER FRONTS
WAVES 10 MTS.
40°
30°
20°
50°
60°
3
6
10
15
20
25
30
35
40

Fig. 6 North Atlantic Ocean Sea Condition Analysis Chart of 0000 GMT of March 8, 1962. Isopleths are significant wave heights in feet. Note 40-ft. wave heights off Northeastern States.

DATA FOR GREAT ATLANTIC COAST STORM, 1962

MARCH 5-9

Station	Date	Pressure (inches)		Wind (miles per hour)				Highest Tide (feet) #	Time+	Storm Surge (feet)‡	Remarks
	March	Low	Time+	Fastest Mile	Time+	Gusts	Time+				
MAINE											
Portland	6			34 NE	1233	43 NE	1233				
	7							12.6	1130	1.6	
NEW HAMPSHIRE											
Portsmouth	6			25 ENE							
MASSACHUSETTS											
Blue Hill Obs.						68					
Boston	6					55 ENE	1417				
	7	29.96	0300	42 ENE	1243			13.5	1146	1.8	
Buzzards Bay	7							6.0	0854	1.6	
Cape Cod Canal	7					73 NE	0113				
Chatham		29.80		40 ENE							
Cuttyhunk		29.81		45 ENE		50 ENE					
Gloucester		30.00		20 NNE				10.9	1145		Tide March 7
Nantucket	7	29.74	0230	51 NE	0225	69 NE	0225	6.2	1200		
Pollock Rip	6			69 E	1900						
	7	29.74	0100								
Race Point		29.88		40 ENE		70 ENE					
Sandwich	6							12.0	2325	1.8	
Somerset, Fall River	7							7.9	2100		
So. Dartmouth	7							6.7	2015		
Woods Hole	7							5.2	0845	3.0	
Wellfleet		29.78		20 ESE		40 ESE					
RHODE ISLAND											
Block Island	6	29.75	2355	76 NE	0900	84 NE	1055				
Newport	7							6.6	0830	2.2	
Point Judith	6					80 NE	2000				Winds force 11-12 from 0100 to 1200 on the 7th averaging NE 65 m.p.h.
	7	29.76		65 NE				6.4	0800	2.4	
Providence	7	29.86	0255	40 NNE	0029	55 NNE	0052	8.0	2055	2.5	
Sakonnet								6.0	0745	2.0	
Saunderstown	7							6.3	0800	2.4	
Quonset Point NAS	7	29.83	0258	36 ENE	0158	51 ENE	0107	6.8	0828	2.1	
CONNECTICUT											
Bridgeport	6	29.76	1430	38 NE	1358	48 NE	0850				
", Pleasure Beach	7							11.1	1130	3.2	
", Yellow Mill Br.	6								2320	3.2	
Hartford	6	29.89	1255	39 NE	1628	55 NE	1632				
New Haven, Tomlison Br.	7							10.8	1200	3.4	
Old Saybrook	7							6.8	1100	2.8	
Stonington	7							5.9	0830	2.7	
NEW YORK											
Amityville											Four successive high tides of 4.2, 4.4, 4.4, 4.3 ft. M.S.L. starting with March 6.
Montauk Point	6							4.3†	2100	2.8	
	7							4.7†	0930	3.1	
NYC Battery	6	29.68	1420	51 NE	1738	59	1738	7.1†	2034	4.2	
	7							7.1†	0857	4.0	
Willets Point	6							8.6†	1101	3.7	Tide gage inoperative 1101 March 6 to 1145 March 8.
Oak Beach	6&7							5.4†			Tides estimated.
NEW JERSEY											
Atlantic City	6	29.46	1521	44 E	0558	58 E	0625	6.9†	0656	4.0	Tide gage inoperative after 0656 March 6. Estimated surge 5.0 ft. or tide 10.0 ft. over M.L.W. at 1926.
Caven Point	6&7							7.4†			
Harrison	6							7.7†	0900		
Long Branch				68		73					
Newark		29.68		37		48					
New Brunswick		29.66				43					
Trenton		29.58		42 NE		57					
DELAWARE											
Wilmington	6			40 ENE	0558	51 ENE	0558				Highest 1-minute wind. Highest av. wind 29.3 mph since sta. est. 1948.
Delaware	5			72 NE	2058						Tide gage failed at 0905 March 7, tide may have exceeded 9.3 ft.
Breakwater	6							9.3	2110		Est. 11 ft. abv. M.L.W. at Ft. Miles early 7th. Wind record doubtful.
Lewes	6&7										Winds increasing up to 70 m.p.h. Flooding undermining homes.
MARYLAND											
Baltimore	6			33 ENE	0856	51 ENE	0856				Highest 1-minute wind.
Cambridge	7-9										Tides 3-6 ft. above normal. Many roads closed due to high water.
Chesapeake Br.	6					64	0815				
Ocean City CGS	6	29.40	2030	40	2030	55	2030				
	7	29.46	0230	45	0230	65	0710				Tides estimated at 5 to 6 ft. above normal or about 9 ft. above M.L.W.
VIRGINIA											
Cape Henry	7			56 NE	0722						
Chesapeake L.S.	7			70 NNE	0543	80 NNE	0543				Seas 30-40 ft. high at times. Wave 50 ft. high hit ship.
Norfolk WBAS	6	29.31	0625								
	7			41 NNE	0404	54 NNE	0331	8.9	1015	5.6	Gusts reaching 65 m.p.h. reported in Hampton Roads area.
Norfolk NAS	7			54 N	0400	69 N	0355				
Virginia Beach	7			30 NNE	0710	55					Only one wind observation on that day.
NORTH CAROLINA											
Cape Hatteras	7	29.21	0355	60 NNW	0156			8.2	0700	3.6	
Wilmington	6	29.48	1255								
	7			24 NW		38 NNW	0158				
Nags Head						76					
Wrightsville Bch.	8							7.5		2.5	
SOUTH CAROLINA											
Charleston WBAS	6	29.56	1420	28 WNW	1823	42 NW	1951				
	8							8.1	2140	2.1	
Georgetown	8							6.2			
FLORIDA											
Daytona Beach	6	29.78	1600	31 WNW	1500	42 WNW	1600				
Jacksonville	6			36 W							Minor erosion of beaches.
Miami	7	29.90	1530	21 NW	1414						
Miami Beach	7							4.6	p.m.	1.7	
	8							5.0	a.m.	2.1	
	9							4.8	a.m.	2.0	
Port Everglades	9							4.3	1000	1.5	
Vero Beach	8							6.5	1000	3.6	

+ Eastern Standard Time # Above mean low water † Departure from astronomical tide † Above mean sea level

STORM SUMMARY

STATE	TORNADOES					HAILSTORMS				WINDSTORMS				LIGHTNING				‡ HEAVY SNOWSTORMS AND BLIZZARDS				# ICE STORMS				∅ ALL OTHER			
	NUMBER	DAYS	DEATHS	INJURIES	†DAMAGE	DEATHS	INJURIES	†DAMAGE PROPERTY	†DAMAGE CROPS	DEATHS	INJURIES	†DAMAGE PROPERTY	†DAMAGE CROPS	DEATHS	INJURIES	†DAMAGE PROPERTY	†DAMAGE CROPS	DEATHS	INJURIES	†DAMAGE PROPERTY	†DAMAGE CROPS	DEATHS	INJURIES	†DAMAGE PROPERTY	†DAMAGE CROPS	DEATHS	INJURIES	†DAMAGE PROPERTY	†DAMAGE CROPS
Alabama	8	4	0	10	5	2	0	6	0	1	0	4	0	1	0	0	0									0	0	5	5
Alaska *																													
Arizona *																													
Arkansas	2	1	0	2	5	0	0	5	0																				
California	1	1	0	0	3	0	0	2	0	2	1	4	0					0	0	3	0	0	0	3	0				
Colorado										0	1	3	0																
Connecticut																										0	0	5	0
Delaware										0	0	4	2													7	M	7	6
Florida	4	1	17	102	5					1	3	3	0	0	1	0	0									1	0	W6	0
Georgia	4	3	0	0	5					0	0	4	0	1	1	0	0					0	0	4	0				
Hawaii																										0	0	5	
Idaho												4																	
Illinois	1	1	0	0	2																								
Indiana	1	1	0	0	4																								
Iowa																		0	0	6	0								
Kansas *																													
Kentucky	1	1	0	0	4																								
Louisiana	1	1	0	0	3																								
Maine										0	0	3	0					0	0	5	0					0	0	4	0
Maryland										0	0	4	2					0	?	5	2					3	M	7	6
Massachusetts										0	1	5	0					0	0	5	0					0	0	5	0
Michigan *																													
Minnesota																		0	0	6	0								
Mississippi	1	1	0	1	5																								
Missouri						0	0	4	0																				
Montana *																													
Nebraska														0	0	4	0									0	0	?	0
Nevada *																													
New Hampshire										0	0	4	0					0	1	5	0					0	0	5	0
New Jersey										21	U	8	3																
New Mexico										0	0	4	0																
New York										0	0	6														0	0	7	
North Carolina						0	0	3	0	D2	D25	D7	0	1	0	0	0	0	12	4	0								
North Dakota *																													
Ohio *																													
Oklahoma										0	0	5	0	0	0	4	0												
Oregon *																													
Pennsylvania										0	2	3	0					0	0	4	0								
Puerto Rico *																													
Rhode Island																										0	0	6	0
South Carolina										1	0	5	0									0	0	5	5	1	0	5	0
South Dakota																		2	0	0	0								
Tennessee										0	3	4	0	0	1	2	0												
Texas	12	3	0	8	6					0	0	4	?													0	0	0	7
Utah *																													
Vermont										0	0	4	0					0	0	5	0					0	0	4	0
U.S. Virgin Is. *																													
Virginia																		2	?	?	0					4	?	8	?
Washington N																													
West Virginia	1	1	0	0	5																								
Wisconsin *																													
Wyoming *																													

* No occurrence of storms or unusual weather phenomena.
‡ Includes heavy sleet storm.
# Freezing drizzle and freezing rain, commonly known as glaze.
ø For breakdown of "All Others", and for detailed listing of other storms, see the U. S. Weather Bureau monthly publication STORM DATA.
N No report received by printing deadline.
M Many.
W Result of wave action.
U Numerous.
D Damage due to wind-driven water.

† Storm damages are placed in categories varying from 1 to 9 as follows:

1	Less than $50
2	$50 to $500
3	$500 to $5,000
4	$5,000 to $50,000
5	$50,000 to $500,000
6	$500,000 to $5,000,000
7	$5,000,000 to $50,000,000
8	$50,000,000 to $500,000,000
9	$500,000,000 to $5,000,000,000

GENERAL SUMMARY OF RIVER AND FLOOD CONDITIONS

MARCH 1962

During March, the Floyd and the Big Sioux River in Iowa produced the largest snowmelt floods in this Century, breaking the record set by the 1960 floods. Flooding on the Vermillion and James Rivers in South Dakota was slightly above the 1960 flood levels. Road and bridge damage was heavy along the Vermillion and the Big Sioux Rivers. The Ohio River flood at Cincinnati, Ohio, was the highest since 1948 and the third highest since 1937. Flooding on the Green River was the highest since 1937 at Brownsville, Ky., and since 1950 at Calhoun, Ky. Serious flooding occurred on streams in southeastern Minnesota.

ST. LAWRENCE DRAINAGE

Lake Michigan.--Minor flooding occurred on the Red Cedar River in Michigan between the 13th and 15th. No damages were reported.

Lake Huron.--The Shiawassee River exceeded flood stage at Owosso, Mich., from the 12th to the 14th. The crest occurred on the 13th and was 0.6 foot above flood stage. The Flint River reached bankfull stage at Flint, Mich., on the 13th. No damages were reported from the slight overflow.

Lake Erie.--Minor flooding occurred at almost all points along the Maumee River system in Indiana and Ohio during March. The most notable exception was the lower portion of the Maumee River from Napoleon, Ohio, downstream. Most of the flooding was due to snowmelt over frozen ground. The melting occurred over a period of several days. Stages along the St. Joseph, Auglaize, and Maumee Rivers were somewhat erratic as minor ice jams formed and dispersed.

Water reached knee-deep depth on Bowen Road, in Elma, N. Y., when Buffalo Creek overflowed. Several families were taken to motels until water receded. Basements were flooded and electric power and furnaces knocked out. An area near Two-Rod and Creekside Roads in Alden, N. Y., was flooded when Cayuga Creek overflowed due to ice jams. Several basements were flooded.

Lake Ontario.--No damage was reported from the minor flooding on Black Creek at Churchville, N. Y., on the 13th and 14th.

Route 258 between Groveland Station, N. Y., and Route 36 in Livingston County was closed when the Canaseraga Creek overflowed.

ATLANTIC SLOPE DRAINAGE

Weather was mild in Maine during March, with less than average snowfall. Snow melted fast the second half of the month in southern Maine and was nearly gone by the end of the month. Over western Maine and the eastern slopes of New Hampshire, snow was still several feet deep, especially in wooded and shaded regions, where water equivalent still averaged around 6 inches. In northern Maine, where snowfall was exceptionally light this winter, ground deposits averaged only a foot or so in the woods. River ice was still several feet thick in northern Maine. Elsewhere, ice weakened and broke up little by little. The major rivers showed their first definite spring rises the last 2 days of the month, but at the end of the month they were still within their banks.

Minor flooding occurred on the lower Winooski River in Vermont from Lake Champlain to below the Winooski Dam. The flooding was due to snowmelt and backwater from the ice jammed below the mouth of the river.

Minor flooding occurred on the Charles River at Charles River Village, Mass., from the 16th to the 23d. This rise was due to precipitation averaging about 1.25 inches on the 12th and 13th, plus rapid runoff from a 15-inch snow cover. Flooding was confined to meadows and lowlands. There was no damage.

Minor flooding occurred along small streams and brooks in southern New England from the precipitation on the 12th. Larger rivers showed only minor rises. The Housatonic River in Connecticut crested just under flood stage during the night of the 12th.

Minor flooding occurred on Roundout Creek at Rosendale, N. Y., on the 12th and 13th due to rainfall (1 to 2 inches) and ice jams. All flooding was confined to lowlands.

Minor flooding occurred on small streams in the lower portion of the Lehigh River Basin in Pennsylvania from the precipitation on the 11th and 12th. The snow cover of 4 to 8 inches above Lehighton, Pa., on the 11th had entirely melted by the 30th.

Precipitation on the 12th, ranging from 1.5 to over 3 inches across central and northern New Jersey, caused flooding on streams in that State. Antecedent conditions were moderately low as there had been no significant rainfall since late February and snow cover, except for the extreme northern portion of the State, was almost zero. Peak stages on the Raritan were the highest since 1958, and on the Passaic at Chatham, N. J., the highest in many years. Some blocking of roads in the Manville-Bound Brook area was reported. There was no flood damage along major streams. Some minor damage resulted from flash floods along small streams in north-central New Jersey.

Extensive but brief flooding occurred on the Perkiomen and Neshaminy Creeks in Pennsylvania on the 12th. This rise was due to heavy rains on the 12th, with more than an inch recorded at many points. Some damage was observed in the Neshaminy watershed.

Flood stage was reached during the evening of the 31st on the Susquehanna River at Conklin, N. Y. The river continued to rise and crested on April 1, about 3.5 feet above flood stage. No damage was observed.

Moderately heavy rain from the 20th to the 22d, plus runoff from snowmelt, caused minor flooding on the South Branch of the Potomac at Springfield, W. Va., on the 22d and 23d and along the main stem of the Potomac at the Leiter gage near Washington, D. C., on the 23d and 24th. Near bankfull stage was reached at other points in the Potomac Basin. Unusually heavy snows fell over most of the Potomac and Rappahannock Basins during the early part of March, with record snow depths, amounting up to 40 inches in some higher elevations in Virginia and West Virginia.

Extensive flooding of small tributaries in the lower James Basin in Virginia and minor flooding of the James below Lynchburg, Va., resulted from the melting of an extensive snow cover. Rainfall on the night of the 11th and through the 12th averaged slightly over an inch in the lower basin and slightly under an inch in the upper basin added to the runoff and unusual rate of snowmelt. This flooding was unusual in that it originated in the lower basin and was sustained by runoff in the lower basin only. Subsequent runoff from the upper basin did not add to the flooding, but only served to prolong high water in the mainstream. The snow cover in the lower basin below Lynchburg, Va., ranged from 4 to 13 inches and in the upper basin from 2 to 9 inches. Warming temperatures on the 10-11th caused rapid melting of the snow cover. No actual property damages were reported, but various operations were suspended, particularly harbor traffic and dock operations in Richmond's harbor were closed on the 13th and 14th. Traffic was suspended on numerous secondary state and county roads that were inundated by overflowing creeks and smaller tributaries throughout the lower basin.

Minor flooding occurred on the Roanoke River in Virginia and on the Neuse and Cape Fear Rivers in eastern North Carolina, following a period of almost daily rainfall totaling about 2 inches from the 5th to the 12th. About 1 to 1 1/2 inches of this amount fell on the 11th and 12th. No damage was reported.

A 4-day period of almost continuous rain from the 8th through the 11th, ranging from 1 1/2 to 3 1/2 inches, caused moderate flooding on the Rocky, Pee Dee, Lynches, and Edisto Rivers in South Carolina. General rains up to 4 inches fell on the 11th and 12th over upstate South Carolina and adjacent portions of North Carolina, resulting in flooding on the Saluda, Broad, and Congaree Rivers between the 12th and 14th. Additional flooding occurred on the Saluda and Broad Rivers following general rains of over 2 inches on the 26th. The high water on the Pee Dee River delayed bridge construction in the Peedee, S. C., area. Plowing and planting were delayed along the Lynches River. Low camp sites and considerable swampland were inundated to shallow depths along the main Edisto for several days. Losses along the Saluda, Broad, and Catawba Rivers were negligible, excepting in the Blair, S. C., area on the Broad where there was some damage to croplands and to a dam on a tributary creek. There was some loss to pasture- and timberland due to swampland flooding on the Wateree below Camden, S. C. There was extensive damage to crops, grazing, and timbering in the lowlands and swamplands below Columbia, S. C., on the Congaree and also in the Rimini, S. C., area on the upper Santee.

Extended periods of rain caused minor flooding of lowlands along streams in Georgia during March. Cattle and other livestock were removed from the swamplands near the rivers during periods of slow rises and minor flooding. Flood stages caused only minor damage as they were well below critical levels.

EAST GULF OF MEXICO DRAINAGE

The Flint River at Albany, Ga., was above flood stage on the 17th and 18th. No losses or damages of consequence occurred from the high water. Only lowlands of small extent were inundated. The Apalachicola River was in flood at Blountstown, Fla., from February 21 through March 25. Only wooded and uninhabited areas were flooded.

Minor flooding occurred on the lower Alabama River in Alabama from heavy rains during the last of February. No damage was reported. Heavy rains of 3 to 6 inches in extreme southern Alabama on the 31st caused local flooding of small streams and lowland areas. Sharp rises occurred on the Conecuh, Choctawatchee, Pea, and Yellow Rivers.

The heavy rain near the end of February caused minor flooding on the Tombigbee River in Mississippi and Alabama. Heavier flooding had occurred in this area in December, January, and February; so, no additional damages were reported from this inundation.

The Pearl River was in flood from Edinburg, Miss., to Bogalusa, La., in the beginning of the month. The flooding extended to Pearl River, La., by March 2. Light to moderate precipitation during the first week of March kept the river out of its banks at Bogalusa, La., until the 27th. Flooding was confined to low-lying agricultural areas. Little or no damage was reported.

MISSISSIPPI SYSTEM

Upper Mississippi Basin.--Snowfall was heavy during March in northeastern Iowa and the western third of Wisconsin. Snowfall during the season ranged from normal to much above normal. The water content of the snow, as of March 1, was high as shown in the following table:

WINTER PRECIPITATION
November 1 through February 28

Drainage Area (River or Stream)	Season 1961-62	Season 1960-61	Season 1959-60	Normal	Percent of Normal this Season	Moisture Content 3-1-61	Moisture Content 3-1-62
Mississippi River to Guttenberg, Iowa	5.25	3.08	3.72	4.25	123	0.40	3.30
Mississippi River to Minneapolis, Minn.	4.32	2.33	2.65	3.40	127	0.15	3.45
Minnesota	3.96	2.52	2.93	3.69	107	0.00	2.45
St. Croix	5.20	3.03	3.48	4.65	112	0.44	3.70
Chippewa	5.62	4.13	4.01	4.94	114	1.00	3.95
Trempealeau	5.64	3.69	4.01	4.95	114	0.25	2.05
Black	5.50	3.90	4.04	5.04	109	0.70	3.05
Zumbro-Whitewater	3.51	3.62	3.22	4.26	83	0.80	3.00
La Crosse	5.88	2.29	4.73	5.04	117	0.00	2.30
Root	5.35	3.33	4.10	4.92	109	0.20	3.50
Kickapoo-Pine	7.58	2.96	5.53	5.62	135	0.00	3.00
Wisconsin	7.38	3.93	4.69	5.72	130	0.36	3.90
Upper Iowa	5.55	3.65	5.61	5.44	102	0.00	4.00

Snowfall after the March 10-12 storm was light. Temperatures were much below normal until the 25th, then a rapid warmup occurred over the southern third of Minnesota, Iowa, and southern Wisconsin, accompanied by strong, dry winds from the 27th through the 28th. Temperatures returned to below normal on the 29th for the rest of March. Flooding due to snowmelt was serious over streams in southeastern Minnesota and northeastern Iowa. The greatest damage occurred at Rochester, Minn., south branch of the Zumbro River, and along the rest of the Zumbro River downstream from Rochester. Considerable damage was also reported along the Whitewater River drainage, particularly to the Whitewater State Park. The tributaries along the Minnesota River upstream from Mankato started to rise rapidly on the 28th and 29th. The rises on the Yellow Medicine, the Redwood, and the Cottonwood Rivers were complicated by ice jams. Overflow occurred with minor damage reported to agricultural land and pasture. Greater damage occurred along the Cottonwood at Springfield, Minn., where an ice jam backed water into the town. Many basements were flooded. The Le Sueur and Blue Earth Rivers, although not complicated by ice, emptied considerable water into the Minnesota River at Mankato, Minn. The rise at Mankato was well on its way by midnight March 28. The Minnesota crested at Mankato on April 2 at a stage of 21.63 feet, (flood stage 19 feet). The lower Minnesota Valley was approaching bankfull stages by March 31. The Kickapoo River Valley snowmelt was completed by the 28th-29th with all points cresting by the end of March. One death was attributed to the high water.

During the last 2 weeks of March, flooding occurred on the Turkey, Maquoketa, and Wapsipinicon Rivers in eastern Iowa and the Pecatonica and Rock in northern Illinois. Rises were due to the melting of an unusually heavy snow cover of from 5 to 20 inches with 2 to 5 inches of water content. A gradual melt with below normal precipitation kept flooding at a minimum.

At the close of February snow on the ground varied from 5 to 6 inches in the southeastern portions of Iowa to more than 30 inches locally in the northwestern portion. The water equivalent of the snow cover varied from 1 1/2 inches to 2 inches in the lower reaches to 3 to 3 1/2 inches in the upper portion, with 4 inches or more in the upper reaches of the Cedar. Warming took place from south to north across the watersheds in three successive waves. The first mild wave from the 8th through the 11th resulted in general thawing across southern Iowa. In Des Moines, the highest temperature during this period was 35°, occurring on each of 5 successive days. Streams south of Des Moines flooded and flood crests occurred on the lower Des Moines River from Tracy, Iowa, downstream. Much of the snow cover south of Des Moines was removed.

From Des Moines northward the depth of the snow cover was materially reduced, but little of the snowmelt water reached the streams. The second mild spell began on the 18th with a temperature of 43° at Des Moines. This mild spell gradually merged into the last warm period on the 23d which climaxed with 70-degree weather in central Iowa on the 27th and 28th. Temperatures in northern Iowa were appreciably lower throughout the month. As late as April 9 solid ice was reported in Lake Heron in the headwaters of the Des Moines River. Precipitation was light during the snowmelt runoff period.

At the beginning of March, there was a heavy snow cover from northern Missouri and northern Illinois northward through the upper Mississippi Valley. Total depth of snow varied from less than an inch along the southern edge of the snow belt from central Missouri eastward through central Illinois to depths averaging 1 to 2 feet or more in Iowa, Minnesota, and Wisconsin. There was little melting during the first 10 days of the month as the temperatures remained at relatively low levels. Light rainfall during this period kept the soil moisture condition high and favorable for runoff. From the 10th through the 12th, there was general rainfall across northern Missouri and through central and northern Illinois with the total for the 3-day period averaging one-half to one inch. Temperatures in the 40's and low 50's along the southern portion of the snowbelt on the 11th also produced appreciable snowmelt. As a result, the streams in northern and central Illinois rose rapidly to flood stage or higher by the 15th. Portions of the Kaskaskia and Big Muddy Rivers in southern Illinois, which had been in flood but were falling the first part of the month, started rising again. Temperatures rose into the 50's and 60's from the 18th to the 20th, with some of the northern Illinois stations reporting temperatures above 50° for the first time this year. This produced considerable melting of the remainder of the snow cover in the tributaries of the Fox and Des Plaines Rivers. General rains from the 19th to the 21st accompanied the warmer temperatures with total amounts from west-central Missouri through central Illinois generally between 1 1/2 to 2 1/2 inches. Amounts on either side of this zone tapered down to less than 1 inch. The snowmelt in tributary streams to the north, plus the rains of the 19th to the 21st, produced marked rises on most rivers. Between the 21st and 25th, the Mississippi reached bankfull stage or higher. The Illinois and tributaries, which had crested at Morris and La Salle, Ill., from snowmelt and rain earlier in the month, rose rapidly again with higher crests 3 to 6 feet above flood the latter half of the month. Flooding occurred primarily on farmlands adjacent to the rivers. However, only a limited amount of this land is normally planted in winter grains so that the total damage was not great. Snowmelt on the Fox and Des Plaines Rivers in Illinois caused some flooding in several communities. Damage was limited to the forced evacuation of a number of families, primarily due to the failure of the septic systems caused by the flood.

Missouri Basin.--The conditions that led to the very large snowmelt floods in March were similar in many respects to the conditions that preceded the large spring floods of 1960. The weather regime from January 25 to the onset of the floods was very significant and set the pattern for the floods. The last week in January and the first half of February were mild over most of South Dakota. By the middle of February, the winter's snow was melted except for drifts and a more or less continuous thin layer of snow in the northeastern counties. The snow was reduced to scattered large drifts in northwest Iowa, except about 2 inches of snow cover remained from the top of the Floyd Basin northward into southwestern Minnesota. The 3-week melting period allowed the topsoil to thaw to a depth of 3 to 5 inches, and soak up much of the winter snow. Only a small amount of this snow cover moved into the rivers. Heavy snowstorms on February 17 and 18, and again on February 20 and 21 covered the area from central South Dakota into northeastern Nebraska, northwest Iowa, and southwestern Minnesota. At the end of February, snow depths varied from 1 to 2 1/2 feet over eastern South Dakota. Snow continued to fall almost daily through the first half of March. One of the most paralyzing snowstorms in many years, struck southeastern South Dakota, northeastern Nebraska, and most of northwestern Iowa from March 11 to 13, depositing an additional 8 to 16 inches of new snow. Northwest winds reached 40 to 50 miles per hour in this storm, piling snow into huge drifts, covering automobiles, blocking roads, and stalling trains. Drifted snow was 5 to 10 feet deep. By March 16, the water equivalent of the snow cover, varied from 4 1/2 to 6 inches from Gregory and Chamberlain, S. Dak., eastward to the Floyd and Little Sioux Basins in northwestern Iowa. Indications are that the water equivalent may have been in excess of 6 inches, in a band 30 to 40 miles, from around Lake Park, Iowa, to Marion and Parker, S. Dak. On March 23 and 24, rains of one-quarter to one-half inch spread from Sioux City northward to the Minnesota line. Since the snow cover was heavy, the only immediate effect was the settling and increasing the water content of the snow. In northeast Nebraska rains were reported in excess of an inch and caused an acceleration in melting and an increase in floods. A surge of very warm air on the 27th caused temperatures to rise to 61° at Sioux City and LeMars, Iowa; 55° at Sioux Falls, S. Dak.; 45° to 50° from Alton, Iowa, to Worthington, Minn.; and 45° to 55° over most of eastern South Dakota. These temperatures caused a rapid melt-out. Ditches and creeks went over their banks. The Floyd River and the Big Sioux below the mouth of the Rock River, produced the largest snowmelt floods in this century, breaking the record set by the 1960 floods. The Floyd has been higher from rain floods, but not from snow. Flooding on the Vermillion and the James Rivers was slightly above the 1960 flood levels. While flood losses on the Big Sioux bottoms were substantial, there was not the livestock losses that occurred in the flood of 1960. Road and bridge damage was heavy along the Vermillion and the Big Sioux Rivers. Damage at Sioux Falls was lighter than in previous floods, due to the availability of a new diversion channel which bypasses upstream water around the edge of Sioux Falls. Flood damage at Sioux City will probably be less than in the 1960 flood.

Floods in the Elkhorn Basin of Nebraska in March were the result of rapid runoff from snowmelt, moderate to heavy rainfall, and ice jams. Flooding in tributary streams of the Elkhorn began on the 22d near West Point, Nebr., then developed rapidly in other sections of the basin on the following days. Due to an ice jam below the gage, the Elkhorn at Norfolk, Nebr., was above flood stage briefly on the 25th. Crest stages on the Elkhorn ranged from 0.9 foot above flood stage at Norfolk up to 4 feet above flood stage at Winslow. Flooding on the North Branch was due principally to snowmelt and runoff from rainfall, with little ice action. Heavy runoff into Logan Creek with numerous ice jams caused serious overflow in that stream from the 26th to the 31st. Ice thickness in the Elkhorn ranged from 12 to 20 inches at the time of the breakup. Snow depths were heaviest on March 12-15, when amounts on the ground ranged from 18 to 22 inches in the northern and central counties and from 17 to 18 inches in the south. Water equivalents at the time of the greatest snow accumulation ranged from 6.13 inches at Walthill to 3.87 inches at Norfolk, Nebr. Rainfall on the 24th averaged near 0.5 inch. Widespread and heavy damage occurred to residential and commercial properties, public utilities, highways, bridges, and railroad properties. There was substantial damage to stored farm feeds, fences, and farm buildings.

Rapid snowmelt aggravated by moderate rains during the period from the 24th to the 26th resulted in overflows along the Platte River in the low-lying residential and industrial areas in the northwest section of Columbus, Nebr. Water covered about 45 blocks, or about 15% of the city, to a depth of 1 to 2 feet and limited use of highways #30 and #81. Below Columbus, the Platte River overflowed low-lying areas to around Valley, Nebr., inundating portions of State highways for short periods. At Valley, Nebr., flood waters covered a portion of the north part of the town, but it was not as high as in 1960. High water was reported further downstream on the Platte River to the mouth. At Louisville, Nebr., above bankfull stages were reported from the 23d through April 1, with low-lying farmland affected. Ice jams occurred on the Platte River from near Columbus, Nebr., to the mouth, resulting in some local flooding of lowlands from the 24th to the 30th. Snowmelt resulted in bankfull stages along the Little Sioux River in Iowa from March 28 to April 7 and at Spencer, Iowa, until April 12. The slow melt kept stages high downstream for several days, but flooding occurred mostly in low-lying farm areas. Flood damage was confined mostly to soil erosion and flooded basements. Two bridges were destroyed by ice jams.

Light, widespread rain on the 11th and 12th and snowmelt resulted in flooding on the Grand and Platte Rivers in northern Missouri from the 11th to the 16th. Heavy local rains on the 19th and 20th caused flooding on the Grand, Platte, Chariton, Lamine, Blackwater, and Little Blue Rivers and Wakenda Creek. Damage was slight since most of the area flooded had suffered severe flooding last fall.

Early spring overflows were locally heavy along the Marais des Cygnes in Kansas from the 21st to the 25th. Overflows in the Big Blue River Basin in Nebraska were generally minor except moderate in the Crete, Nebr., area. Tributary flow and discharge from Tuttle Creek Dam on the lower Big Blue River raised stages on the lower Kansas River to around two-thirds bankfull near the end of the month. Flooding developed from rainfall on the 21st, 22d, and 24th, which fell on wet soil. Runoff from locally heavy snowmelt on the headwaters of the Big and Little Blue Rivers and parts of the lower Republican was released slow enough during the middle of the month to avoid a potential flood threat.

Some flooding occurred along the main stem of the Missouri in the reach from Plattsmouth, Nebr., to St. Joseph, Mo., from March 28 to April 4. There was also some flooding in the lower section from Hermann, Mo., to St. Charles, Mo.

Ohio Basin.--Light to moderate rain on the 20th and 21st combined with snowmelt runoff resulted in flooding along the Cheat River in West Virginia and on the Monongahela River in Pennsylvania. Rainfall varied from 0.50 to 2 inches over the Monongahela River Basin with the heavier amounts over the Cheat River Basin. The water content of the snow cover over the Cheat Basin varied from 0.50 to 1.50 inches. Only minor damages resulted from the flooding.

Minor flooding occurred on the Scioto River in Ohio from the 12th to the 16th due to rapid snowmelt and light rain. Mild weather hastened the melting of the 5- to 10-inch snow cover which occurred during the second week of the month. Moderate rains ranging from 0.50 to 1.00 inch caused a secondary rise to above flood stage in the upper Scioto on the 22d and on Paint Creek at Bourneville, Ohio, on the 21st and 22d. Secondary roads were temporarily closed due to the high water.

Flood conditions continued into March on the Licking and Kentucky Rivers in Kentucky. Flooding was due to heavy rains during the latter part of February. The Licking River fell below flood stage on March 2 and the Kentucky River on March 5. The overall damage was light.

The Barren River crested at Bowling Green, Ky., on February 28 at a stage of 49.9 feet, nearly 22 feet above flood stage. It receded below flood stage on March 4. The highest stages of record occurred along the Green River above Brownsville, Ky., in February. The crests downstream in March were the highest since 1937 at Brownsville, Ky., and the highest since 1950 at Calhoun, Ky. Although the damages will be considerable, they will be much less since few if any crops were planted. Some 260 thousand acres were flooded along the Green River.

There were three periods of flooding in Indiana during March. As the month began, the Wabash and White Rivers were still above flood stage at numerous points due to rainfall during February. The Wabash receded to below flood stage downstream to Mt. Carmel by the 11th and the White River and the East Fork by the 5th. The second flood period began on the 10th and was due to rainfall on the 8th and 9th averaging 0.50 to 0.75 inch. The most significant flooding followed general heavy rains on the 20th and 21st. These rains ranged from 1 to over 2 inches. Damage to property was confined to flooding of a few river cabins and washing of some roads and fields. There was no crop damage.

The Stones and Harpeth Rivers in Tennessee receded below flood stage on March 1, after cresting on February 27. The Cumberland River was in flood at Barbourville and Williamsburg, Ky., and at Nashville and Clarksville, Tenn., in the beginning of the month and continued above flood at Clarksville until March 6. This flooding was due to the generally heavy rains during the latter part of February. Many stations reported nearly 7 inches of rain over a 3-day period. Frequent lighter rains had occurred previous to these heavier amounts.

The Elk River was above flood stage at Fayetteville, Tenn., on March 1 and continued above flood until the 3d. The Duck River continued above flood at Shelbyville, Tenn., until the 1st and at Columbia, Tenn., until the 2d. The general heavy rains through the latter part of February caused heavy discharges from the dams along the main stem of the Tennessee. Flooding resulted below the dams at Whitesburg and Florence, Ala., Savannah, Tenn., and Gilbertsville, Ky., on February 23 and 25 and continued in flood until the 9th at Whitesburg, Ala., and until April 3 at Gilbertsville, Ky. Heavy rains (2 1/2 to 3 inches) during the night of the 30th and 31st produced rapid rises in the Elk River to above flood stage at Fayetteville, Tenn., on the 31st. Some flooding of lowlands occurred along the lower end of Norris Creek with little or no damage. This stream crested on the 31st and was within its banks on April 1.

The Ohio River went out of its banks at and below Point Pleasant, W. Va., on February 27 and 28. In the reach above, there was some flooding at Dam 23, Racine, Ohio, from February 28 to March 2. Farmlands were extensively flooded by backwaters where creeks and tributaries enter the Ohio River. The rise was somewhat different from past floods in that the main stem reached flood stage quicker and fell below flood stage later than most Ohio River floods. At Cincinnati, Ohio, the crest of 61.3 feet was the highest since 1948 and the third highest since 1937. It was within its banks at this point by March 6. In the reach between Cincinnati, Ohio, and Evansville, Ind., the crests exceeded flood stage by up to 12.6 feet at Leavenworth, Ind. In this reach the Ohio had receded within its banks by the 12th. Flooding continued most of March and into April in the reach below. At Cairo, Ill., the Ohio was out of its banks from February 27 to April 26. Minor damage occurred along most of the Ohio with moderate damage to Manchester, Ripley, and New Richmond, Ohio, and Vanceburg, Ky., which do not have protection works. The larger and more industrialized cities of Portsmouth, New Boston, Maysville, Covington, Newport, and Lawrenceburg have flood protection works and sustained little damage. These communities had most of their business areas under water and a majority of the residential area. The heavily industrialized Mill Creek Valley was protected by the Mill Creek Barrier Dam. Heavy amounts of debris were left along the banks of the Ohio after the flood waters receded; debris was exceptionally heavy at Markland Dam. The communities of New Richmond and Manchester, Ohio, suffered moderate structural damage to buildings, but most of the damage resulted from repeated flooding over many years. At Manchester, Ohio, the State Highway Department moved nearly 500 people and their goods into the High School on high ground; the Red Cross fed them from the school cafeteria for nearly a week. Considerable time and money was spent keeping the flood out of Smithland, Ky., which is on the Ohio River near the mouth of the Cumberland. Few growing crops were lost. Spring crops had not been planted.

White Basin.--Heavy general rain during the latter part of February caused flooding on the Black River at Black Rock, Ark., from February 27 to March 14. This same storm caused flooding on the lower White River in Arkansas beginning on the 2d at Clarendon. Flooding continued at St. Charles, Ark., from the 6th into April. Flood damage was minor and was limited to the loss of the use of lowlands for grazing purposes. The high water also delayed pulp wood cutting and lumbering operations. Additional flooding occurred on the Black River beginning on the 26th.

Arkansas Basin.--Minor flooding occurred on the Neosho River at Emporia, Kans., on the 21st and 22d. This overflow was due to heavy precipitation on the 21st. No significant damage resulted from this flooding. The Grand River at Commerce, Okla., crested 0.4 foot below flood stage on the 23d.

Red Basin.--The flooding on the Little Missouri, the Ouachita, and the Little Rivers in Arkansas was due to rainfall during the latter part of February. The Little Missouri River was above flood stage at Boughton, Ark., from February 28 to March 1, cresting 0.9 foot above flood stage on February 28. The Ouachita River was in flood at Camden, Ark., from February 26 to March 9, cresting 9.3 feet above flood stage on the 4th. The Little River was out of its banks at Wilton, Ark., from February 26 to March 3. The Sulphur River overflowed at Naples, Texas, from February 27 to March 6. The Caddo River reached flood stage at Glenwood, Ark., on the 31st from rainfall averaging 1.5 inches. Flood damage was minor and was limited to the loss of the use of lowlands for grazing purposes.

Lower Mississippi Basin.--The St. Francis River was above flood stage and rising in the beginning of the month due to heavy rains during the latter part of February. The river crested at Fisk, Mo., on March 1-2, 5 feet above flood stage and at St. Francis, Ark., on the 4th-5th, 2.8 feet above flood stage. The crest reached Madison, Ark., on the 12th and 13th, 0.5 foot above flood stage. Heavy rains on March 21, ranging from 1.5 to over 3 inches, caused another rise on the St. Francis to above flood stage at Fisk on the 23d and at St. Francis on the 25th. Flooding continued into April and the crests were slightly lower than the ones earlier in the month. Damage in these floods was minor in the upper reaches of the basin as the crests in January and February were almost as high. Primary damage was in the Parkin-Madison area, which was not flooded earlier in 1962. The small tributary streams were affected by local heavy rains and much of the flooding was in tributary areas. Damage was primarily to winter crops.

The heavy rains during the last half of February and frequent light to moderate rains during March resulted in high stages on streams in Mississippi. The Tallahatchie River at Swan Lake, Miss., remained above flood stage from February 26 to March 17. The Yazoo River remained near or slightly above flood stage at Yazoo City, Miss., throughout the month. Flooding occurred during much of the month on the Big Black River.

The Mississippi River went above flood at Caruthersville, Mo., on March 1; at New Madrid, Mo., on the 2d; at Memphis, Tenn., on the 6th, and at Helena, Ark., on the 17th. Up to the time of the first crest from the 17th to the 22d, this was almost entirely an Ohio River flood. The Tennessee and Cumberland were heavy contributors to the flood flow. The only rains of consequence in March which affected the first crest occurred from the 9th to the 11th. Total amounts were about 1/2 inch, except in the Tennessee and Cumberland Basins. The Mississippi River continued in flood into April from New Madrid, Mo., to Memphis, Tenn. At Helena, Ark., the Mississippi receded within its banks on the 24th. Heavy rains on the 21st, 26th, 30th, and 31st resulted in another rise with the Mississippi going above flood at Helena, Ark., on the 31st. This second rise was a combination of water from the Ohio and upper Mississippi. The 3d rise during April was small with only about 0.1 foot rise at Caruthersville and Memphis. The Mississippi was above flood for a long period -- 57 days at Caruthersville, 50 days at Memphis, and 8 days in the first flood at Helena and 15 days in the second. To break this record, you would have to go back to the January - March 1950 flood, when the river was above flood for 59 days at Caruthersville, 53 days at Memphis, and 52 days at Helena. Damage was relatively light and minor as little work had been done in unprotected areas in preparation for crops. There is ample time for crops to be planted in the flooded areas.

Great Basin.--Minor flooding was reported on the Bear River near Woodruff, Utah, during March. Flooding was due to snowmelt runoff from side streams overflowing the icecap of the main stream which was frozen almost solid. Minor damage resulted.

PACIFIC SLOPE DRAINAGE

Sacramento Basin.--Moderate to heavy precipitation on the 5th and 6th resulted in sharp rises on all northern California rivers and streams. The rises were modified to some extent by the snowline lowering to 3,000 to 4,000 feet. Stages on the Sacramento River were sufficient to cause overflow at the upstream weirs into Butte Basin and Sutter Bypass.

Coquille Basin.--Minor flooding occurred on the Coquille River at Myrtle Point, Oreg., on the 26th and 27th. The river rose rapidly from the heavy rain on the 26th and 27th. No damage was reported.

Columbia Basin.--Flash flooding occurred on secondary streams in southeastern Idaho due to snowmelt and ice jams. Damage was reported in limited areas along these streams. Roads and residences in low-lying areas on Sand Creek, upstream from the vicinity of Shelly and in the Jameston and Taylor areas were flooded from the 21st to the 23d. Near Shoshone, the Wood River flooded low areas and did damage to roads and bridges. Snowmelt continued to maintain headwater streams at high levels with local flooding resulting in washout of fills and assorted bridges. The Portneuf River at Pocatello, Idaho, was in minor flood from the 21st to the 23d and again from the 26th into April. The U. S. Army Corps of Engineers and National Guard assisted residents and property owners in sandbagging at Pocatello, Inkorn, Bancroft, Moreland, and Thomas to reduce similar damage experienced in February.

Streamflow west of the Cascade Mountains in Oregon remained at base flow levels during the first two-thirds of March. Precipitation beginning on the 21st repeated at 24-hour intervals for 3 days plus snowmelt caused the Santiam, Pudding, and Willamette Rivers to rise to flood stage on the 26th and 27th. The Pudding River at Aurora, Oreg., was in slight flood from the 26th to the 31st. The Santiam at Jefferson, Oreg., and the Willamette at Harrisburg, Oreg., reached, but did not exceed bankfull stage on the 27th.

FLOOD STAGE DATA

(All dates in March unless otherwise specified)

River and station	Flood stage	Above flood stages -dates		Crest *	
		From–	To–	Stage	Date
ST. LAWRENCE DRAINAGE	Ft.			Ft.	
Lake Michigan					
Red Cedar: Williamstown, Mich.	7	13	15	8.7	13
East Lansing, Mich.	7	13	14	7.5	13
Lake Huron					
Shiawassee: Owosso, Mich.	7	12	14	7.6	13
Flint: Flint, Mich.	11	13	13	11.0	13
Lake Erie					
St. Marys: Decatur, Ind.	13	21	23	15.1	22
St. Joseph: Montpelier, Ohio	10	Feb. 28 12	1 28	10.1 13.4 13.0	1 14 22
Maumee: Fort Wayne, Ind.	10	13 22	13 23	15.4 15.6	13 23
Defiance, Ohio	10	13	14	10.7	13
Napolean, Ohio	10	13	13	10.5	13
Lake Ontario					
Black Creek: Churchville, N. Y.	5	13	14	5.85	13
ATLANTIC SLOPE DRAINAGE					
Charles: Charles River Village, Mass.	4	16	23	4.6	19
Roundout Creek: Rosendale, N. Y.	12	12	13	14.0	13
Passaic: Chatham, N. J.	[illegible]	12	16	6.4	12
Millstone: Blackwells Mills, N. J.	8	12	14	10.3	13
Raritan: Manville, N. J.	12	12	13	15.4	13
Boundbrook, N. J.	8	12	13	11.2	13
Assunpink Creek: Trenton, N. J.	6	12	13	7.4	12
Perkiomen Creek: Graterford, Pa.	11	12	12	13.0	12
Susquehanna: Conklin, N. Y.	11	31	31	#14.5	Apr. 1
South Branch Potomac: Springfield W. Va.	15	22	23	17.2	22
Potomac: Washington, D. C.	12	23	24	13.4	23
Rivanna: Palmyra, Va.	T15	12	13	18.1	13
James: Buchanan, Va.	17	22	22	17.0	22
Bremo Bluff, Va.	19	13	14	20.4 21.9	13 23
Richmond, Va. (Westham Bridge)	12	12 22	15 25	14.9 13.9	14 24
Richmond, Va. (City Locks)	9	13 23	15 24	11.1 10.0	14 24
Roanoke: Altavista, Va.	18	12	13	20.55	12
Randolph, Va.	21	12	14	25.5	13
Neuse: Neuse, N. C.	14	13	15	14.8	14
Smithfield, N. C.	13	13	15	16.0	14
Goldsboro, N. C.	14	13	20	16.6	18
Kinston, N. C.	14	5 17	9 23	14.3 14.9	8 21
Cape Fear: Lock #3, Tarheel, N. C.	42	12	16	49.3	14
Lock #2, Elizabethtown, N. C.	20	12	17	26.6	14
Rocky: Norwood, N. C.	16	11	13	E23.8	12
Lynches: Effingham, S. C.	14	17	20	E15.9	18
Pee Dee: Cheraw, S. C.	30	Feb. 27 12	1 14	34.4 E34.8	Feb. 27 13
Peedee, S. C.	19	Feb. 24 12	9 26	E22.8 E22.7	4 18
Saluda: Pelzer, S. C.	6	12 27 31	14 27 1/	7.5 6.0 6.5	13 27 31
Chappells, S. C.	13	12	14	17.2	13
Broad: Blair, S. C.	14	12 27	14 28	20.0 14.7	13 27
Congaree: Columbia, S. C.	19	13	13	19.0	13
North Fork Edisto: Orangeburg, S.C.	8	Feb. 22 12	2 17	9.2 E8.2	Feb. 24 14
Edisto: Givhans Ferry, S. C.	10	Feb. 27	26	E12.4 E11.5	6 18

River and station	Flood stage	Above flood stages -dates		Crest *	
		From–	To–	Stage	Date
ATLANTIC SLOPE DRAINAGE (Cont'd.)	Ft.			Ft.	
Savannah: Millhaven, Ga.	15	1 17	7 22	16.2 16.2	4-5 20
Clyo, Ga.	11	1	31	15.0	7
Ogeechee: Midville, Ga.	6	13	17	6.8	16
Dover, Ga.	7	2	23	9.6	3
Ocmulgee: Macon, Ga.	18	12		19.8	12
Abbeville, Ga.	12	1 16	8 22	14.2 14.4	3 18
Oconee: Milledgeville, Ga.	20	12 15	13	26.4 22.7	12 15
Dublin, Ga.	21	15	17	24.0	16
Mount Vernon, Ga.	16	1 16	8 22	18.1 18.4	3 15
Altamaha: Charlotte, Ga.	15	3 17	14 27	18.5 18.3	9 22
EAST GULF OF MEXICO DRAINAGE					
Flint: Albany, Ga.	20	17	18	22.0	18
Apalachicola: Blountstown, Fla.	15	Feb. 21	25	20.0 20.1	Feb. 27,28 16
Alabama: Millers Ferry, Ala.	40	Feb. 27	2	42.75	Feb. 27
Claiborne, Ala.	40	2	4	40.75	3
East Fork Tombigbee: Fulton, Miss.	16	Feb. 23 12	4 12	17.6 16.0	Feb. 27 12
Tibbie: Tibbie, Miss.	23	2 12	3 13	23.7 23.5	2 12
Noxubee: Macon, Miss.	25	Feb. 24	2	26.3	Feb. 25
Tombigbee: Amory, Miss.	20	Feb. 24	4	25.5	1
Aberdeen, Miss.	34	Feb. 25	5	39.6	2
Gainesville, Ala.	36	Feb. 28	10	39.9	5-6
Demopolis Lock & Dam, Ala.	48	Feb. 25 15	2 15	51.3 48.1	Feb. 27 15
Jackson Lock & Dam, Ala.	43	Feb. 25	20	48.0	3
Pearl: Edinburg, Miss.	20	Feb. 26	2	21.35	Feb. 28
Jackson, Miss.	18	Feb. 25	23	26.2	5
Bogalusa, La.	15	Feb. 24	27	17.7	12
Pearl River, La.	12	2	19	12.6	5
MISSISSIPPI SYSTEM					
Upper Mississippi Basin					
Yellow Medicine: Granite Falls (nr), Minn.	6	30	Apr. 5	7.4	31
Redwood: Redwood Falls (nr), Minn.	6	30	Apr. 3	11.8	31
Cottonwood: New Ulm (nr), Minn.	11	29	Apr. 3	16.0	30
Minnesota: Mankato, Minn.	19	31	Apr. 9	21.6	Apr. 2
South Fork Zumbro: Rochester, Minn.	12	28	29	18.5	29
Zumbro: Zumbro Falls, Minn.	18	28	30	28.25	29
Theilman, Minn.	38	28	31	43.0	30
Whitewater: Beaver, Minn.	7	27	29	9.7	29
Trempealeau: Dodge, Wis.	7	28	31	9.8	30
Root: Lanesboro, Minn.	12	28	29	12.3	28
Houston, Minn.	15	29	31	18.0	30
Hokah, Minn.	47	28	31	49.7	29
Upper Iowa: Dorchester, Iowa	14	28	31	18.2	29
Kickapoo: La Farge, Wis.	11	29	29	11.8	29
Soldiers Grove, Wis.	723	28	31	725.4	29
Gays Mills, Wis.	698	28	31	699.7	30
Turkey: Garber, Iowa	17	27	31	25.0	29
Maquoketa: Maquoketa, Iowa	13	19 25	20 26	17.25 13.6	20 26
Wapsipinicon: Independence, Iowa	12	28	Apr. 1	15.6	31
DeWitt, Iowa	10	20	Apr. 12	11.8	Apr. 6
Pecatonica: Darlington, Wis.	11	25	27	11.6	26
Martintown, Wis.	11	19	Apr. 3	15.2	29

FLOOD STAGE DATA

(All dates in March unless otherwise specified)

River and station	Flood stage	Above flood stages -dates		Crest *	
		From–	To–	Stage	Date
MISSISSIPPI SYSTEM (Cont'd.)	Ft.			Ft.	
Upper Mississippi Basin (Cont'd.)					
Pecatonica (Cont'd.): Freeport, Ill.	13	23	Apr. 2	13.5	30
Shirland, Ill.	E10	15	Apr. 15	15.0	26
Rock: Rockton, Ill.	E10	25	Apr. 9	11.35	31
Rockford, Ill.	E43	24	Apr. 9	49.0	29
Joslin, Ill.	10	13	Apr. 22	15.9	22
Moline, Ill.	13	21	28	13.8	23
Iowa: Wapello, Iowa	10	20	1/	14.1	22
Skunk: Augusta, Iowa	15	20	28	18.1	23
South Raccoon: Redfield, Iowa	14	20 24	20 25	14.4 14.4	20 24
Raccoon: Des Moines, Iowa	12	21	21	12.3	21
Middle: Indianola, Iowa	15	19	22	19.0	19
Des Moines: Ottumwa, Iowa	9	20		13.8	21
Fox: Wayland, Mo.	15	11	13	16.8	12
Salt: New London, Mo.	19	21	23	23.1	22
Kankakee: Momence, Ill.	4	18 22	18 22	4.0 4.0	18 22
Fox: Dayton, Ill.	12	17	23	14.6	20
Vermillion: Lowell, Ill.	10	12 22	13 23	11.1 10.6	13 23
Mackinaw: Green Valley, Ill.	11	13 22	14 24	11.7 11.7	14 24
Sangamon: Riverton, Ill.	13	Feb. 19 11	7 1/	E15.9 E16.9 20.75	2 15 23
Petersburg, Ill.	497	24	28	499.1	25
Oakford, Ill.	471	24	26	E471.3	25
LaMoine: Ripley, Ill.	22	21	24	23.7	22
Illinois: Morris, Ill.	13	12 19	15 26	E15.3 15.95 16.5	13 20 22
LaSalle, Ill.	20	12	1/	23.95 25.5 26.5	13 20-21 23
Peoria, Ill.	18	15	1/	23.7	25
Havanna, Ill.	14	15	1/	15.85 21.3	17 27
Beardstown, Ill.	14	13	1/	23.4	29
Meredosia, Ill.	428	Jan. 13	1/	429.4 440.4	7 31
Bourbeuse: Union, Mo.	15	22	23	17.9	23
Meramec: Steelville, Mo.	12	21	21	14.35	21
Sullivan, Mo.	11	21	23	15.7	21
Pacific, Mo.	11	21	25	18.6	24
Eureka, Mo.	16	21	24	E19.8	23
Valley Park, Mo.	16	22	25	18.9	24
Kaskaskia: Shelbyville, Ill.	13	21	26	E17.5	22
Vandalia, Ill.	18	21	29	24.9	22
Carlyle, Ill.	21	Feb. 25 12	9 1/	23.0 21.4 E26.2	2-3 16-17 24
New Athens, Ill.	25	27	30	25.8	29
Big Muddy: Murphysboro, Ill.	16	Feb. 24 21	12 1/	26.5 25.7	2-3 29
Mississippi: Keithsburg, Ill.	12	21	Apr. 28	13.1 15.0 13.6	22 Apr. 7 Apr. 21
Burlington, Iowa	15	23	23	15.0	23
Keokuk, Iowa	16	23	25	16.9	24
Gregory Landing, Mo.	15	23	Apr. 15	17.35 19.0	23 Apr. 8
Quincy, Ill.	17	23	Apr. 16	21.1 21.3	24 Apr. 9
Hannibal, Mo.	16	23	1/	20.0	24
Louisiana, Mo	15	21	1/	19.5	24
MISSISSIPPI SYSTEM (Cont'd.)	Ft.			Ft.	
Upper Mississippi Basin (Cont'd.)					
Mississippi (Cont'd.): Clarkesville, Mo.	25	21	1/	29.6 26.3	24 31
Winfield, Mo.	26	22	1/	30.2	25
Grafton, Ill.	18	22	1/	E23.3	26
Alton, Ill.	21	22	1/	25.9	26
St. Louis, Mo.	30	25	26	E30.2	25
Chester, Ill.	27	23	1/	30.6	25-26
Cape Girardeau, Mo.	32	23	Apr. 15	36.2	27
Missouri Basin					
James: Huron, S. Dak.	11	27	Apr. 12	15.8 15.8	Apr. 1 Apr. 2
Little Rock: Doon, Iowa	15	27	Apr. 7	20.2 16.6	29 Apr. 5
Rock: Rock Rapids, Iowa	9	28	31	14.8	29
Rock Valley, Iowa	11	28	Apr. 9	16.9 14.3	30 Apr. 5
Big Sioux: Sioux Falls, S. Dak.	10	27	Apr. 1	17.0	28
Hawarden, Iowa	15	28	Apr. 11	23.2	30
Akron, Iowa	16	27	Apr. 13	22.8	31
West Branch Floyd: Maurice, Iowa	13	27	30	17.2	28
Struble, Iowa	14	27	30	15.8	28
Floyd: Sheldon, Iowa	12	28	29	13.0	28
Alton, Iowa	12	27	Apr. 2	18.35	28
LeMars, Iowa	20	27	Apr. 1	22.9 24.1	28 29
Merrill, Iowa	12	26	31	16.3	29
James, Iowa	16	25	Apr. 5	22.1 22.4	28 29
West Fork Little Sioux: Holly Springs, Iowa	18			19.5	28
Little Sioux: Spencer, Iowa	10	28	Apr. 12	14.5	31
Cherokee, Iowa	18	28	Apr. 7	24.0	29
Correctionville, Iowa	19	28	Apr. 7	23.1	30
North Branch Elkhorn: Osmond, Nebr.	10	25	29	13.6	28
Pierce, Nebr.	12	25	30	15.15	28
Hadar, Nebr.	12	26	31	18.2	28
Elkhorn: Norfolk, Nebr.	10	25	25	10.9	25
West Point, Nebr.	12	24	27	15.2	26
Winslow, Nebr.	14	26	29	18.4	27
Waterloo, Nebr.	15	28	30	16.9	28
Platte: Louisville, Nebr.	7	23	Apr. 1	9.5	29
Nishnabotna: Hamburg, Mo.	18	22 26	25 26	22.7 18.9	23 26
One Hundred and Two: Rosendale, Mo.	13	20	21	14.6	20
Platte: Agency, Mo.	20	12	14	20.6	13
Turkey Creek: Wilber, Nebr.	11	24	25	11.0	24
Black Vermillion: Frankfort, Kans.	19	21	21	20.0	21
Big Blue: Ulysses, Nebr.	15	20	20	16.3	20
Crete, Nebr.	16	21	27	19.9	24
Beatrice, Nebr.	16	25	25	16.2	25
Barneston, Nebr.	18	24	25	20.0	25
Blue Rapids, Kans.	1101	25	25	1101.6	25
Little Blue: Lake City, Mo.	18	21	21	21.2	21
Wakenda Creek: Carrollton, Mo.	20	21	21	20.1	21
Grand: Pattonsburg, Mo.	25	11	12	27.5	11
Gallatin, Mo.	21	12	12	21.5	12
Chillicothe, Mo.	24	11 21	14 21	28.7 25.6	12 21

FLOOD STAGE DATA

(All dates in March unless otherwise specified)

River and station	Flood stage	Above flood stages -dates		Crest *	
		From–	To–	Stage	Date
MISSISSIPPI SYSTEM (Cont'd.)	Ft.			Ft.	
Missouri Basin (Cont'd.)					
Grand (Cont'd.): Sumner, Mo.	26	11 20	16 24	32.5 30.7	14 22
Brunswick, Mo.	12	14 22	16 24	13.6 13.1	15 23
Chariton: Rathbun, Mo.	18	19	19	19.0	19
Novinger, Mo.	20	22	22	20.0	22
Prairie Hill, Mo.	15	21	22	17.0	21
Lamine: Clifton City, Mo.	19	21	22	27.0	21
Blackwater: Blue Lick, Mo.	25	21	26	30.8	23
Marmaton: Fort Scott, Kans.	38	21	21	38.8	21
South Grand: Brownington, Mo.	19	21	26	27.6	23
Niangua: Decaturville, Mo.	84	21	22	84.0	22
Marais des Cygnes: Reading, Kans.	T18	21	21	18.6	21
Quenemo, Kans.	28	21	22	33.95	21
Ottawa, Kans.	23	21	23	25.1	23
Osawatomie, Kans.	28	21	24	33.2	22
LaCygne, Kans.	25	21	26	29.0	24
Trading Post, Kans.	24	21	26	26.0	25
Osage: Schell City, Mo.	25	21	30	30.4	25
Osceola, Mo.	22	21	22	23.5	21
Warsaw, Mo.	31	21	25	32.2	21
St. Thomas, Mo.	23	22	25	24.5	23
Missouri: Plattsmouth, Nebr.	955	28	Apr. 1	957.7	30
Nebraska City, Nebr.	18	29	Apr. 3	20.6	31
Rulo, Nebr.	17	29	Apr. 4	19.2	31
St. Joseph, Mo.	17	30	Apr. 3	18.8	Apr. 1
Hermann, Mo.	21	21	1/	25.3	23
St. Charles, Mo.	25	22	1/	28.3 26.4	24 31
Ohio Basin					
Cheat: Parsons, W. Va.	11	21	21	13.5	21
Monongahela: Lock 4, Charleroi, Pa.	24	22	22	24.7	27
Lock 2, Braddock, Pa.	26	22	23	26.4	22
Little Kanawha: Creston, W. Va.	20	Feb. 28	Feb. 28	22.7	Feb. 28
Hocking: Enterprise, Ohio	12	Feb. 28	Feb. 28	12.15	Feb. 28
Athens, Ohio	17	Feb. 27	1	#18.0	Feb. 28
Coal: Tornado, W. Va.				29.0	Feb. 28
Guyandott: Logan, W. Va.	20	Feb. 27	Feb. 27	22.0	Feb. 27
Branchland, W. Va.	30	Feb. 27	1	38.9	Feb. 28
Tug Fork: Williamson, W. Va.	27	Feb. 27	Feb. 27	27.2	Feb. 27
Kermit, W. Va.	38	Feb. 27	Feb. 28	40.4	Feb. 27
Beaver Creek: Martin Ky.	12	Feb. 27	Feb. 28	29.2	Feb. 27
Big Sandy: Louisa, Ky.	45	Feb. 27	2		
Paint Creek: Bourneville, Ohio	10	Feb. 27 21	1 22	15.0 11.5	Feb. 28 21
Scioto: LaRue, Ohio	11	12 22	13 22	12.7 11.8	12 22
Prospect, Ohio	10	14	14	E10.4	14
Circleville, Ohio	14	Feb. 27 12	2 14	18.1 16.6	Feb. 28 13
Chillicothe, Ohio	16	Feb. 28	2	18.1	1
Piketon, Ohio	16	Feb. 25 13	3 16	25.5 17.8	1 15
South Fork Licking: Cynthiana, Ky.	20	Feb. 27	1	20.55	Feb. 28
Licking: Farmers, Ky.	25	Feb. 27	1	26.7	Feb. 28
Falmouth, Ky.	28	Feb. 27	2	33.95	Feb. 28
Rolling Fork: Boston, Ky.	40	Feb. 27	5	48.3	1
Brashears Creek: Taylorsville, Ky.	20	Feb. 26	Feb. 28	23.9	Feb. 27
North Fork Kentucky: Jackson, Ky.	29	Feb. 27	1	38.0	Feb. 28
MISSISSIPPI SYSTEM (Cont'd.)	Ft.			Ft.	
Ohio Basin (Cont'd.)					
Kentucky: Lock No. 11, College Hill Ky.	30	Feb. 27	3	38.2	1
Lock No. 10, Ford, Ky.	25	Feb. 27	4	R36.3	2
Lock No. 7, High Bridge, Ky.	30	Feb. 27	5	37.9	1
Lock No. 4, Frankfort, Ky.	31	Feb. 27	5	40.7	1
Barren: Bowling Green, Ky.	28	Feb. 27	4	49.9	Feb. 28
Rough: Dundee, Ky.	25	Feb. 27	1		
Green: Munfordville, Ky.	28	Feb. 27	4	57.7	1
Lock 6, Brownsville, Ky.	18	Feb. 26	6	41.7	2
Lock 4, Woodbury, Ky.	33	Feb. 25	12	53.8	3
Lock 2, Calhoun, Ky.	23	Feb. 27	28	33.8	10
Mascatatuck: Crothersville, Ind.	T16	Feb. 24 10 22	 13 23	23.0 19.0 19.3	Feb. 27 11 22
Embarass: Ste. Marie, Ill.	18	22	25	20.7	23
Eel: Bowling Green, Ind.	17	22	22	19.4	22
East Fork White: Seymour, Ind.	14	Feb. 27 24	2 24	16.0 14.0	Feb. 28 24
Bedford, Ind.	20	1	5	24.4	4
Williams, Ind.	10	3	5	12.4	4
White: Anderson, Ind.	10	22	22	10.4	22
Nora, Ind.	6	10 21	15 26	8.7 10.4	13 23
Spencer, Ind.	14	Feb. 27 22	2 25	16.9 18.35	1 23
Elliston, Ind.	18	Feb. 27 14 22	3 14 26	21.0 18.4 23.5	2 14 25
Edwardsport, Ind.	15	Feb. 28 14 23	5 16 28	18.7 16.6 20.5	3 15 26
Petersburg, Ind.	16	Feb. 27 13 24	10 17 29	21.8 17.1 20.0	5 16 28
Hazelton, Ind.	16		1/	22.3 20.35	6 29
Skillet Fork: Wayne City, Ill.	15	Feb. 13 21	1 24	18.1 18.7	Feb. 26 22
Little Wabash: Wilcox(nr), Ill.	16	Feb. 24 10 21	5 15 28		
Wabash: Wabash, Ind.	12	Feb. 27 12 22	1 14 24	16.4 16.0 15.8	Feb. 27 12 22
Lafayette, Ind.	11	Feb. 27 11 21	2 16 27	18.1 17.7 19.2	Feb. 28 13 23
Covington, Ind.	16	Feb. 27 12 22	3 17 28	21.1 20.8 22.9	2 15 24
Montezuma, Ind.	14	Feb. 27 12 21	4 18 29	18.9 19.1 23.2	3 16 25
Clinton, Ind.	18	Feb. 28 21	4 28	18.55 21.7 21.45	3 22 25
Terre Haute, Ind.	14	Feb. 27 12 21	5 19 30	16.5 16.4 19.2	4 17 26
Hutsonville, Ind.	T20	Feb. 26 23	 31	 22.6	 27
Riverton, Ind.	18	23	31	20.0	28
Vincennes, Ind.	16	22	1/	20.4	29
Mt. Carmel, Ill.	17	1 15 24	11 19 31	21.3 17.3 22.2	7 18 30
New Harmony, Ind.	15	3 26	11 Apr. 3	16.6 17.0	9 31
Saline: Harrisburg, Ill.	13	Feb. 24 21 31	19 29 Apr. 3		
Stones: Donelson, Tenn.	T40	Feb. 27	1	50.6	Feb. 27

FLOOD STAGE DATA

(All dates in March unless otherwise specified)

River and station	Flood stage	Above flood stages -dates		Crest *	
		From—	To—	Stage	Date
MISSISSIPPI SYSTEM (Cont'd.)	Ft.			Ft.	
Ohio Basin (Cont'd.)					
Harpeth: Kingston Springs, Tenn.	15	Feb. 26	1	29.5	Feb. 27
Cumberland: Barbourville, Ky.	27	Feb. 27	3	36.4	1
Williamsburg, Ky.	21	Feb. 27	4	27.55	1
Nashville, Tenn.	40	Feb. 27	3	47.3	1
Clarksville, Tenn.	46	Feb. 26	6	E58.5	1
Eddyville, Ky.	50	Feb. 27	25	65.7	5
Elk: Fayetteville, Tenn.	659	Feb. 28 31	3 Apr. 1	663.9 660.9	Feb. 28 31
Duck: Shelbyville, Tenn.	719	Feb. 28	1	719.4	1
Columbia, Tenn.	32	Feb. 26	2	39.55	Feb. 28
Tennessee: Whitesburg, Ala.	560	Feb. 23	9	570.6	Feb. 27
Florence, Ala.	419	Feb. 23	5	425.7	Feb. 28
Savannah, Tenn.	380	Feb. 25	8	388.8	3
Gilbertsville, Ky.	320	Feb. 25	Apr. 3	339.2	3
Ohio: Dam 23, Racine, Ohio	37	Feb. 28	2	42.1	1
Point Pleasant, W. Va.	40	Feb. 27	3	44.1	Feb. 28
Gallipolis Dam, Hogsett, W.Va.	50	Feb. 28	2	51.5	1
Huntington, W. Va.	50	Feb. 27	3	56.0	1
Ashland, Ky.	52	Feb. 27	4	61.0	1
Greenup Dam, Ky.	54	Feb. 27	4	61.5	1
Portsmouth, Ohio	50	Feb. 28	4	59.1	2
Dam 32, Vanceburg, Ky.	53	Feb. 28	5	60.0	2
Dam 33, Maysville, Ky.	50	Feb. 28	5	59.8	2
Dam 34, Chilo, Ohio	49	Feb. 28	5	57.6	2
Dam 35, Oneonta, Ky.	48	Feb. 28	6	57.6	2
Dam 36, California, Ky.	52	Feb. 28	6	61.6	2
Cincinnati, Ohio	52	Feb. 28	6	61.3	3
Dam 37, Fernbank, Ohio	50	Feb. 28	7	60.5	3
Dam 38, Grant, Ky.	51	Feb. 28	7	60.0	3
Dam 39, Markland, Ind.	48	Feb. 28	7	58.0	3
Madison, Ind.	46	Feb. 28	7	54.0	4
Dam 41, Louisville, Ky.	55	Feb. 28	8	65.0	4
Dam 43, Evans Landing, Ind.	57	Feb. 28	8	66.5	5
Dam 44, Leavenworth, Ind.	53	Feb. 28	10	65.6	5
Dam 45, Addison, Ky.	47	Feb. 28	10	55.9	6
Tell City, Ind.	38	Feb. 28	12	47.8	6
Dam 46, Owensboro, Ky.	41	1	11	46.0	6
Dam 47, Newburg, Ind.	38	Feb. 28	20	47.5	7
Evansville, Ind.	42	2	12	45.0	7
Dam 48, Cypress, Ind.	38	Feb. 28	20	47.6	8
Mt. Vernon, Ind.	35	Feb. 28 27	23 Apr. 1	46.1 35.7	9 30
Dam 49, Uniontown, Ky.	37	1 27	24 Apr. 5	48.8 38.1	9 31
Shawneetown, Ill.	33	Feb. 28	Apr. 11	49.7 38.3	[illegible] 31
Dam 50, Fords Ferry, Ky.	34	Feb. 27	Apr. 23	52.9	10
Dam 51, Golconda, Ill.	40	1	23	49.7	11
Paducah, Ky.	39	Feb. 28 29	26 Apr. 8	48.2 40.6	11 Apr. 1
Dam 52, Brookport, Ill.	37	Feb. 27	Apr. 24	49.9	12
Dam 53, Grand Chain, Ill.	42	Feb. 27	Apr. 25	53.2	12
Cairo, Ill.	40	Feb. 27	Apr. 26	50.5	16
MISSISSIPPI SYSTEM (Cont'd.)	Ft.			Ft.	
White Basin					
Black: Black Rock, Ark.	14	Feb. 27 26	14 1	21.8 16.6	Feb. 28 27
White: Georgetown, Ark.	21	5	8	21.2	6
Clarendon, Ark.	26	2	23	27.9	12
St. Charles, Ark.	25	6	1/	26.5	16
Arkansas Basin					
Neosho: Emporia, Kans.	22	21	22	24.4	21
Red Basin					
Caddo: Glenwood, Ark.	10	31	1/		
Little Missouri: Boughton, Ark.	20	Feb. 28	1	20.9	Feb. 28
Ouachita: Arkadelphia, Ark.	17	Feb. 27	1	21.65	Feb. 28
Camden, Ark.	26	Feb. 26	9	35.3	4
Little: Wilton, Ark.	25	Feb. 26	3	28.5	1
Sulphur: Maples, Tex.	22	Feb. 27	6	25.1	1-2
Lower Mississippi Basin					
St. Francis: Fisk, Mo.	20	Feb. 27 23	6 Apr. 3	25.0 24.3	1-2 26
St. Francis, Ark.	18	Feb. 26 25	12 Apr. 12	20.8 20.7	4-5 31
Madison, Ark.	32	9	15	32.5	12-13
Tallahatchie: Swan Lake, Miss.	26	Feb. 26	17	28.4	3
Yazoo: Yazoo City, Miss.	29	11	27	29.8	11
Big Black: Pickens, Miss.	16	1	19	18.2	2
Bovina, Miss.	28	2	21	30.3	9
Mississippi: New Madrid, Mo.	34	2	Apr. 25	39.3	17,18
Caruthersville, Mo.	32	1	Apr. 26	38.0 37.8 36.3	17 Apr. 3-4 Apr. 17
Memphis, Tenn.	34	[illegible]	Apr. 24	36.8 36.6 35.0	21 Apr. 5-6 Apr. 18-20
Helena, Ark.	44	17 31	24 Apr. 14	44.3 44.7	22 Apr. 7-10
PACIFIC SLOPE DRAINAGE					
Sacramento Basin					
Sacramento: Moulton Weir, Calif.	77	7	8	77.4	7
Colusa Weir, Calif.	62	[illegible]	10	65.4	7
Tisdale Weir, Calif.	45	6	11	48.1	8
Coquille Basin					
Coquille: Myrtle Point, Oreg.	35	26	27	35.9	26
Columbia Basin					
Portneuf: Pocatello, Idaho	6	21 26	23 1	6.2 6.7	22 30-31
Santiam: Jefferson, Oreg.	15	27	27	15.0	27
Pudding: Aurora, Oreg.	20	26	31	24.2	28
Willamette: Harrisburg, Oreg.	12	27	27	12.0	27

*	Provisional
#	Highest Stage Observed
E	Estimated
T	Tentative
1/	Continued at end of month
R̄	Record High Stage

RAWINSONDE DATA

Average monthly values

MARCH 1962

ALBANY, N. Y.
(1006 MB.)

Standard pressure surface (mb)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind	
					Direction	Speed
SURFACE	31	86	- 2.8	72	314	4.7
1,000	31	132	- 2.6	67	318	4.7
950	31	536	- 2.5	62	340	7.2
900	31	967	- 4.6	61	352	9.9
850	31	1,417	- 5.3	57	349	12.4
800	31	1,892	- 6.4	54	341	12.8
750	31	2,394	- 8.2	52	329	12.6
700	31	2,930	-10.7	49	317	13.6
650	31	3,495	-13.4	43	314	15.0
600	31	4,102	-17.1	41	308	16.7
550	31	4,745	-21.3		302	20.0
500	31	5,447	-26.1		300	22.7
450	31	6,194	-31.6		295	24.5
400	31	7,026	-37.9		289	27.8
350	31	7,934	-44.1		284	34.6
300	31	8,952	-51.1		282	40.6
250	31	10,121	-56.9		279	47.0
200	31	11,532	-56.7		278	45.3
175	29	12,380	-55.4		277	43.9
150	29	13,366	-54.6		275	44.5
125	29	14,532	-55.4		273	41.2
100	29	15,952	-56.5		273	39.6
80	29	17,366	-57.2		270	35.2
70	29	18,211	-56.7		270	32.6
60	29	19,190	-56.1		267	30.7
50	28	20,354	-55.6		264	29.7
40	28	21,775	-55.5		259	26.8
30	27	23,616	-54.3		259	28.2
25	27	24,787	-53.3		253	27.6
20	26	26,224	-51.4		253	31.7
15	26	28,100	-49.4		252	34.2
10	6	30,815	-43.5			
7						

ALBUQUERQUE, N. MEX.
(835 MB.)

Standard pressure surface (mb)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind	
					Direction	Speed
SURFACE	31	1,619	- 0.2	55	71	1.9
1,000	31	151				
950	31	566				
900	31	1,012				
850	31	1,477				
800	31	1,966	1.3	39	282	3.3
750	31	2,474	- 1.8	41	287	8.4
700	31	3,028	- 5.6	43	281	13.6
650	31	3,599	- 9.8	46	276	18.1
600	31	4,218	-13.9	39	272	23.7
550	31	4,868	-18.3		270	29.9
500	31	5,579	-23.0		268	36.5
450	31	6,339	-28.2		263	43.3
400	31	7,181	-34.0		265	46.0
350	31	8,104	-40.1		269	49.4
300	31	9,141	-46.6		276	54.6
250	31	10,333	-53.3		280	59.7
200	30	11,757	-57.0		278	63.3
175	29	12,602	-57.3		276	63.3
150	29	13,575	-58.4		274	62.6
125	28	14,713	-60.6		274	48.2
100	26	16,097	-63.6		267	43.1
80	25	17,466	-64.0		271	38.1
70	25	18,286	-62.4		267	28.4
60	25	19,240	-61.3		270	22.2
50	24	20,368	-59.9		278	17.3
40	23	21,766	-58.7		275	14.2
30	22	23,580	-56.6		269	15.7
25	21	24,751	-55.6		276	19.4
20	19	26,173	-53.6		276	24.5
15	15	28,032	-49.6		265	28.6
10	11	30,714	-43.2			
7	6	33,143	-39.2			

AMARILLO, TEXAS
(889 MB.)

Standard pressure surface (mb)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind	
					Direction	Speed
SURFACE	31	1,095	1.2	57	235	4.7
1,000	31	126				
950	31	548				
900	31	997				
850	31	1,457	4.1	43	265	12.2
800	31	1,949	2.7	35	280	14.4
750	31	2,466	- .2	33	274	15.3
700	31	3,017	- 4.0	35	272	16.3
650	31	3,595	- 8.0	36	270	18.8
600	31	4,215	-12.1	36	268	23.9
550	31	4,870	-16.9	35	267	29.3
500	31	5,584	-21.6		269	35.9
450	31	6,347	-27.0	30	268	42.9
400	31	7,192	-33.3		267	47.2
350	31	8,118	-39.3		266	55.8
300	31	9,159	-46.0		264	65.1
250	31	10,354	-52.6		266	77.3
200	31	11,779	-57.1		266	83.9
175	28	12,632	-57.0		266	82.6
150	28	13,605	-58.5		266	73.1
125	26	14,740	-60.8		266	66.5
100	25	16,123	-62.5		267	56.7
80	23	17,492	-63.2		268	43.5
70	22	18,327	-62.4		270	33.6
60	21	19,264	-62.0		268	29.0
50	18	20,386	-60.6		270	20.8
40	16	21,779	-58.9		272	18.5
30	12	23,626	-56.8		277	20.8
25	10	24,829	-53.7			
20	7	26,260	-51.8			
15						
10						
7						

ANCHORAGE, ALASKA
(1008 MB.)

Standard pressure surface (mb)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind	
					Direction	Speed
SURFACE	31	29	- 8.0	69	341	2.1
1,000	31	89			349	1.0
950	31	486	- 6.7	59	38	4.1
900	31	911	- 8.0	58	60	3.7
850	31	1,354	- 9.8	55	69	3.5
800	31	1,820	-12.0	52		.0
750	31	2,312	-14.6	51	252	2.1
700	31	2,831	-17.3	51	260	3.5
650	31	3,383	-20.3	49	253	6.6
600	31	3,972	-23.7	48	261	9.1
550	31	4,602	-27.1	44	258	12.4
500	31	5,285	-31.3	42	258	16.1
450	31	6,021	-36.3		262	20.0
400	31	6,832	-41.1		269	24.5
350	31	7,729	-46.0		269	30.1
300	31	8,745	-49.8		270	34.2
250	31	9,932	-51.4		274	30.1
200	31	11,385	-49.6		276	25.5
175	31	12,259	-49.3		281	22.7
150	31	13,269	-49.5		287	20.6
125	31	14,461	-50.2		286	19.2
100	31	15,915	-50.7		293	16.5
80	31	17,368	-50.9		297	13.6
70	31	18,239	-51.2		301	13.8
60	31	19,237	-51.7		308	12.6
50	31	20,417	-52.4		317	13.0
40	31	21,858	-52.8		331	14.2
30	31	23,711	-53.6		334	13.8
25	29	24,889	-53.7		339	13.2
20	27	26,320	-54.0		336	13.8
15	16	28,143	-54.8		332	14.8
10						
7						

ANNETTE, ALASKA
(1011 MB.)

Standard pressure surface (mb)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind	
					Direction	Speed
SURFACE	31	37	0.7	68	110	2.5
1,000	31	122			110	4.1
950	31	531	- 1.5	62	153	7.4
900	31	962	- 4.1	60	175	8.2
850	31	1,410	- 6.7	57	205	7.0
800	31	1,882	- 9.1	60	225	7.6
750	31	2,377	-11.6	56	243	8.4
700	31	2,905	-14.6	52	254	10.3
650	31	3,462	-18.0	52	264	13.4
600	31	4,058	-21.4	49	264	15.7
550	31	4,691	-25.2	48	282	19.6
500	31	5,382	-29.4	44	287	22.5
450	31	6,121	-34.2	47	286	26.6
400	31	6,944	-39.6		290	31.1
350	31	7,846	-45.3		292	33.4
300	31	8,861	-51.3		297	38.1
250	31	10,033	-55.3		298	36.1
200	31	11,454	-54.9		297	30.1
175	31	12,310	-53.4		302	27.4
150	31	13,302	-53.2		305	25.5
125	29	14,483	-53.3		306	22.2
100	29	15,915	-54.3		313	20.6
80	29	17,344	-54.4		318	18.1
70	29	18,201	-54.6		323	17.3
60	29	19,185	-54.8		326	17.3
50	29	20,350	-55.1		336	18.5
40	28	21,768	-55.3		339	17.1
30	27	23,605	-55.8		352	12.6
25	24	24,790	-55.8		356	10.9
20	19	26,229	-54.9		4	11.1
15						
10						
7						

ATHENS, GA.
(987 MB.)

Standard pressure surface (mb)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind	
					Direction	Speed
SURFACE	31	246	5.0	81	338	2.1
1,000	31	139				
950	31	560	6.4	63	313	3.9
900	31	1,002	5.0	59	285	6.6
850	31	1,468	3.6	57	280	12.8
800	31	1,959	1.5	55	275	16.5
750	31	2,476	- .7	49	272	22.2
700	31	3,027	- 3.0	42	273	27.0
650	31	3,606	- 6.2	38	272	29.9
600	31	4,233	- 9.8	36	267	35.8
550	31	4,894	-14.1		270	40.6
500	31	5,616	-18.9		268	47.2
450	31	6,389	-24.2		267	54.2
400	31	7,242	-30.4		269	61.6
350	31	8,179	-37.0		269	69.6
300	31	9,229	-44.2		270	76.9
250	31	10,433	-51.7		272	89.6
200	30	11,860	-57.2		273	95.8
175	30	12,701	-57.9		270	91.5
150	30	13,669	-59.8		270	79.7
125	30	14,801	-62.9		270	71.3
100	30	16,168	-65.3		270	57.7
80	30	17,527	-65.1		271	45.7
70	30	18,353	-63.4		270	36.9
60	28	19,299	-61.9		271	29.3
50	27	20,435	-59.7		272	20.0
40	24	21,837	-56.4		268	16.7
30	22	23,689	-54.0		274	12.6
25	21	24,864	-52.8		277	15.3
20	12	26,289	-50.8		272	21.6
15	8	28,198	-46.9			

BARROW, ALASKA
(1024 MB.)

Standard pressure surface (mb)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind	
					Direction	Speed
SURFACE	31	8	-25.9	60	68	5.8
1,000	31	177	-23.4	59	75	10.1
950	31	556	-20.7	62	79	12.6
900	31	956	-19.2	63	76	12.2
850	31	1,382	-19.1	57	73	10.9
800	31	1,832	-20.2	54	68	9.9
750	31	2,303	-21.8	49	75	9.3
700	31	2,814	-23.8	45	69	7.6
650	31	3,347	-26.4	44	59	6.8
600	31	3,928	-29.6	42	41	5.6
550	31	4,537	-33.0		32	5.2
500	31	5,209	-36.9		342	4.9
450	31	5,928	-41.3		21	7.8
400	31	6,724	-45.3		9	9.9
350	31	7,608	-48.7		3	10.3
300	31	8,613	-51.7		355	12.0
250	31	9,794	-52.1		335	8.9
200	31	11,247	-49.4		322	9.3
175	31	12,122	-49.3		297	10.5
150	31	13,133	-49.4		289	11.3
125	31	14,325	-50.1		294	11.7
100	31	15,780	-51.0		289	15.5
80	31	17,229	-51.6		298	17.7
70	31	18,094	-52.0		296	20.8
60	30	19,090	-52.6		298	20.0
50	30	20,266	-53.2		293	24.9
40	30	21,699	-54.5		294	28.2
30	29	23,541	-55.8		295	33.0
25	28	24,717	-56.0		292	32.8
20	21	26,186	-55.6		279	29.5
15	5	27,894	-56.4			

BARTER IS., ALASKA
(1022 MB.)

Standard pressure surface (mb)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind	
					Direction	Speed
SURFACE	30	15	-26.9	60	201	1.6
1,000	30	169	-24.2	61		.0
950	30	538	-20.7	62	91	2.9
900	30	947	-19.1	62	104	4.5
850	30	1,373	-19.2	60	99	3.7
800	30	1,823	-20.5	57	112	3.1
750	30	2,297	-22.5	57	111	1.9
700	30	2,803	-24.8	55	10	1.2
650	30	3,337	-27.3	51	25	1.0
600	30	3,913	-30.3	47	315	2.1
550	30	4,523	-33.7		349	2.1
500	30	5,192	-37.4		315	4.7
450	30	5,906	-41.7		309	7.6
400	30	6,705	-46.1		312	8.9
350	30	7,586	-49.4		306	8.7
300	30	8,591	-51.1		300	8.7
250	30	9,776	-50.6		303	11.5
200	30	11,235	-48.5		304	13.0
175	29	12,117	-48.4		298	13.8
150	29	13,131	-48.6		303	15.3
125	29	14,327	-49.4		301	15.5
100	28	15,786	-50.4		296	19.0
80	26	17,241	-51.1		294	24.1
70	24	18,091	-51.6		298	25.8
60	24	19,093	-52.5		301	26.0
50	24	20,268	-53.4		300	29.1
40	24	21,701	-54.1		304	32.1
30	23	23,542	-55.5		303	35.2
25	23	24,703	-55.8		312	37.5
20	16	26,124	-55.9		312	37.1
15	6	28,033	-56.0			

BETHEL, ALASKA
(1006 MB.)

Standard pressure surface (mb)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind	
					Direction	Speed
SURFACE	31	39	- 9.9	80	128	2.1
1,000	31	84			38	.6
950	31	482	- 7.5	65	138	5.6
900	31	903	- 8.9	62	165	6.2
850	31	1,344	-10.5	59	188	6.6
800	31	1,809	-12.4	55	196	7.0
750	31	2,298	-14.4	51	214	7.4
700	31	2,821	-17.0	48	222	8.7
650	31	3,372	-19.9	48	234	10.3
600	31	3,964	-23.5	46	239	12.0
550	31	4,592	-27.0	45	252	14.2
500	31	5,277	-31.4	45	260	19.0
450	31	6,010	-35.8		261	22.9
400	31	6,828	-40.8		260	27.6
350	31	7,727	-45.5		264	31.7
300	31	8,745	-49.7		262	29.5
250	31	9,933	-51.3		261	24.7
200	31	11,385	-50.2		254	20.0
175	29	12,262	-49.2		248	18.3
150	29	13,274	-49.1		248	15.7
125	29	14,468	-50.0		242	14.0
100	29	15,925	-50.7		253	13.4
80	28	17,379	-50.6		265	10.7
70	28	18,246	-50.7		273	9.3
60	27	19,254	-51.6		271	6.4
50	27	20,435	-52.3		276	7.0
40	27	21,876	-52.9		294	6.8
30	24	23,729	-53.7		307	7.2
25	20	24,888	-54.2		316	5.2
20	17	26,307	-54.0		275	5.1
15	6	28,096	-53.9			

BISMARCK, N. DAK.
(956 MB.)

Standard pressure surface (mb)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind	
					Direction	Speed
SURFACE	31	505	- 8.4	81	30	2.1
1,000	31	152				
950	31	553			359	1.2
900	31	974	- 5.8	71	332	2.5
850	31	1,423	- 4.8	64	327	4.7
800	31	1,899	- 6.4	64	315	7.4
750	31	2,402	- 9.1	62	309	10.5
700	31	2,932	-11.8	59	303	12.6
650	31	3,495	-15.0	56	295	13.4
600	31	4,098	-18.5	50	288	13.4
550	31	4,738	-22.7	45	271	12.2
500	31	5,435	-27.7	43	283	15.7
450	31	6,179	-33.2	41	283	17.5
400	31	7,002	-39.5		290	21.0
350	31	7,903	-46.3		290	26.8
300	31	8,910	-53.8		288	30.7
250	31	10,065	-59.5		280	32.4
200	31	11,464	-57.7		285	35.8
175	31	12,310	-55.9		284	35.6
150	30	13,302	-55.0		283	34.8
125	30	14,465	-55.8		282	32.3
100	30	15,881	-56.8		285	30.7
80	30	17,292	-57.5		287	31.5
70	29	18,134	-57.6		290	29.5
60	27	19,118	-57.2		293	28.6
50	27	20,270	-57.1		291	25.6
40	25	21,689	-57.4		296	22.2
30	20	23,546	-56.7		304	20.6
25	17	24,717	-56.0		291	14.4
20	12	26,195	-55.4		292	15.0
15						

BOISE, IDAHO
(915 MB.)

Standard pressure surface (mb)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind	
					Direction	Speed
SURFACE	31	868	- 0.1	77	144	4.5
1,000	31	147				
950	31	561				
900	31	998	1.6	61	146	4.5
850	31	1,458	.1	55	228	2.9
800	31	1,941	- 3.1	59	266	7.4
750	31	2,445	- 6.6	61	278	11.1
700	31	2,984	- 9.9	58	281	11.9
650	31	3,550	-13.3	54	278	13.4
600	31	4,157	-17.1	52	271	15.2
550	31	4,800	-21.0	50	274	20.0
500	31	5,502	-25.7	48	270	21.8
450	31	6,250	-31.2	44	271	21.2
400	31	7,082	-37.4		279	22.7
350	30	7,988	-44.1		273	27.2
300	29	9,006	-51.1		281	29.7
250	29	10,175	-57.0		284	31.3
200	29	11,576	-58.7		282	28.2
175	29	12,419	-56.3		280	28.2
150	28	13,412	-55.9		280	25.5
125	28	14,571	-56.8		281	25.3
100	27	15,994	-57.7		281	22.9
80	25	17,406	-57.0		291	17.5
70	25	18,256	-57.2		293	16.7
60	21	19,230	-56.6		301	15.5
50	20	20,390	-56.4		316	12.2
40	15	21,832	-56.5		331	10.7
30	13	23,653	-56.1		338	13.4
25	9	24,811	-55.6			
20						
15						
10						
7						
5						

BROWNSVILLE, TEXAS
(1014 MB.)

Standard pressure surface (mb)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind	
					Direction	Speed
SURFACE	31	7	15.8	87	98	2.1
1,000	31	121	16.6	78	102	4.3
950	31	556	15.1	74	139	9.5
900	31	1,015	13.6	62	156	8.5
850	31	1,496	12.9	49	190	7.8
800	31	2,004	11.0	38	223	9.5
750	31	2,539	8.7	38	232	14.6
700	31	3,109	6.2	34	239	16.7
650	31	3,709	2.3	33	256	23.1
600	31	4,354	- 2.1	35	257	31.3
550	31	5,034	- 6.7	35	258	37.7
500	31	5,777	-11.8	36	261	44.3
450	31	6,570	-17.0	38	262	52.5
400	31	7,452	-23.0	41	263	61.4
350	31	8,416	-30.1	39	262	69.8
300	31	9,495	-38.3		262	74.8
250	31	10,725	-47.6		262	82.8
200	30	12,166	-57.5		262	88.6
175	30	13,001	-61.8		263	83.7
150	30	13,947	-65.4		260	76.0
125	29	15,045	-68.8		261	64.5
100	25	16,369	-72.5		262	50.9
80	17	17,675	-74.7		260	38.5
70	14	18,461	-71.5		256	20.4
60	14	19,372	-68.0		254	15.9
50	13	20,483	-61.3		256	15.3
40	13	21,882	-56.4		257	6.6
30	13	23,727	-52.3		259	8.2
25	11	24,915	-49.6		258	11.7
20	10	26,395	-46.7			
15	10	28,316	-43.3			
10	7	31,095	-36.9			
7						
5						

BUFFALO, N. Y.
(991 MB.)

Standard pressure surface (mb)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind	
					Direction	Speed
SURFACE	31	218	- 2.5	76	192	1.4
1,000	31	147				
950	31	553	- 2.1	66	219	2.7
900	31	984	- 3.6	63	249	3.9
850	31	1,435	- 4.9	59	291	5.4
800	31	1,910	- 6.2	52	294	6.6
750	31	2,410	- 7.9	47	290	7.8
700	31	2,948	-10.5	42	291	8.9
650	31	3,511	-13.2	37	284	11.1
600	31	4,121	-17.2	40	287	13.0
550	31	4,763	-21.4	41	286	15.3
500	31	5,464	-26.2	40	284	17.9
450	31	6,209	-31.8		282	22.3
400	31	7,039	-38.2		278	27.4
350	31	7,946	-44.6		273	33.4
300	31	8,963	-51.4		273	38.3
250	31	10,131	-57.3		273	42.9
200	31	11,539	-57.2		269	44.5
175	30	12,389	-55.8		268	43.1
150	30	13,371	-55.8		270	42.7
125	30	14,531	-56.4		271	41.0
100	29	15,950	-57.1		268	37.1
80	29	17,357	-57.9		268	32.6
70	29	18,199	-57.0		268	31.1
60	29	19,172	-57.4		268	30.9
50	29	20,325	-56.8		262	28.6
40	29	21,742	-55.9		257	28.6
30	29	23,577	-54.4		259	27.4
25	27	24,730	-53.5		260	31.1
20	27	26,171	-51.7		258	31.7
15	25	28,056	-49.0		254	31.1
10	12	30,795	-44.7			
7						
5						

BURRWOOD, LA.
(1016 MB.)

Standard pressure surface (mb)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind	
					Direction	Speed
SURFACE	31	3	12.9	88	53	4.3
1,000	31	133	14.3	74	51	4.9
950	31	563	12.5	65	111	.8
900	31	1,018	10.7	58	228	4.1
850	31	1,494	9.3	48	258	6.8
800	31	1,995	7.6	38	272	12.0
750	31	2,521	5.7	32	270	19.2
700	31	3,088	3.3		270	26.4
650	31	3,679	- .2		269	30.9
600	31	4,321	- 4.1		269	36.7
550	31	4,989	- 8.7		267	42.2
500	31	5,733	-13.6		264	48.8
450	31	6,521	-18.8		269	54.6
400	31	7,395	-25.0	38	267	65.1
350	31	8,352	-31.6		268	73.1
300	31	9,425	-39.5		268	84.1
250	31	10,649	-48.4		271	91.7
200	31	12,087	-56.9		272	97.2
175	31	12,927	-59.9		271	91.3
150	31	13,883	-63.3		269	84.9
125	31	14,995	-66.8		268	76.0
100	31	16,335	-69.5		266	61.0
80	31	17,657	-71.0		270	40.2
70	30	18,454	-69.0		268	27.8
60	30	19,377	-64.7		264	21.4
50	30	20,502	-60.1		258	13.8
40	30	21,907	-56.2		276	7.0
30	29	23,748	-52.6		262	7.2
25	28	24,935	-50.1		270	9.7
20	27	26,400	-46.4		272	9.7
15	26	28,326	-42.2		265	9.3
10	24	31,112	-35.4		258	9.7
7	10	33,609	-31.1			
5						

CANTON IS., PACIFIC AREA
(1010 MB.)

Standard pressure surface (mb)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind	
					Direction	Speed
SURFACE	31	4	26.4	80	81	8.7
1,000	31	94	25.8	80	81	11.5
950	31	537	22.8	80	80	17.9
900	31	1,016	19.8	79	84	19.8
850	31	1,508	17.2	70	86	20.8
800	31	2,025	16.0	46	84	18.1
750	31	2,570	13.3	42	79	15.7
700	31	3,149	9.9	39	79	13.0
650	31	3,756	6.2	36	[illegible]	12.2
600	31	4,412	2.4	37	98	10.9
550	31	5,106	- 1.3	33	108	8.7
500	31	5,864	- 5.6	29	149	6.2
450	31	6,681	-10.5	27	207	4.5
400	31	7,580	-16.9		219	3.3
350	31	8,568	-24.2		177	6.2
300	31	9,673	-32.7		149	11.1
250	31	10,930	-42.7		152	16.7
200	30	12,400	-54.0		172	17.9
175	30	13,246	-60.2		199	16.5
150	29	14,191	-67.5		230	18.8
125	29	15,267	-75.4		240	23.7
100	28	16,537	-81.3		244	18.1
80	24	17,786	-79.3		254	11.1
70	22	18,553	-73.9		256	13.8
60	21	19,462	-69.8		262	19.6
50	21	20,558	-65.8		267	24.5
40	21	21,929	-61.6		270	25.8
30	21	23,731	-57.5		278	11.9
25	20	24,893	-54.9		93	4.5
20	19	26,332	-51.9		91	34.8
15	18	28,216	-47.4		91	57.9
10	18	30,934	-41.7		90	69.9
7	18	33,364	-38.9		84	74.8
5	17	35,692	-34.7		85	85.1

See reference note at end of table

RAWINSONDE DATA

Average monthly values

MARCH 1962

Standard pressure surface (mb.)	CAPE HATTERAS, N. C. (1014 MB.)					
	Number of observations	Dynamic height	Temperature	Relative humidity	Wind	
					Direction	Speed
SURFACE	31	4	6.5	84	354	5.8
1,000--	31	117	7.8	71	6	8.2
950----	31	533	5.6	63	358	9.9
900----	31	979	3.5	64	333	8.2
850----	31	1,442	1.8	61	297	11.1
800----	31	1,929	- .1	52	283	16.9
750----	31	2,440	- 2.2	48	279	21.4
700----	31	2,990	- 4.6	47	275	26.2
650----	31	3,566	- 7.4	44	275	32.6
600----	31	4,191	-11.0	43	277	37.1
550----	31	4,848	-15.2	39	278	42.9
500----	31	5,569	-19.9	38	277	47.4
450----	31	6,336	-25.0	37	278	58.3
400----	30	7,183	-31.3	35	277	66.3
350----	30	8,117	-37.5		274	74.6
300----	30	9,164	-44.9		275	76.7
250----	30	10,364	-51.7		276	83.9
200----	30	11,797	-55.1		279	89.2
175----	30	12,650	-55.0		278	84.9
150----	30	13,632	-56.5		276	77.7
125----	29	14,781	-59.2		274	68.2
100----	28	16,172	-61.4		272	52.7
80-----	27	17,556	-62.7		275	38.7
70-----	27	18,391	-61.8		272	34.6
60-----	27	19,341	-59.6		278	24.9
50-----	25	20,487	-57.2		277	15.9
40-----	25	21,908	-54.8		266	16.9
30-----	24	23,755	-52.5		251	17.1
25-----	24	24,938	-50.6		252	17.3
20-----	23	26,397	-47.9		249	21.8
15-----	23	28,318	-43.0		243	20.8
10-----	16	31,098	-34.8		242	27.2
7------	8	33,548	-32.1			

Standard pressure surface (mb.)	CARIBOU, ME. (990 MB.)					
	Number of observations	Dynamic height	Temperature	Relative humidity	Wind	
					Direction	Speed
SURFACE	31	191	- 4.4	77	323	7.6
1,000--	31	112				
950----	31	515	- 3.6	65	343	11.9
900----	31	943	- 5.9	65	355	17.3
850----	31	1,390	- 7.4	63	5	16.9
800----	31	1,861	- 8.7	58	10	15.5
750----	31	2,359	-10.1	52	6	13.6
700----	31	2,891	-12.1	48	5	14.4
650----	31	3,450	-15.0	48	5	13.0
600----	31	4,056	-18.7	50	359	13.6
550----	31	4,694	-22.9	48	351	13.8
500----	31	5,392	-27.5	45	332	12.0
450----	31	6,137	-32.7		333	12.8
400----	31	6,963	-38.6		320	15.9
350----	31	7,868	-45.2		310	17.5
300----	31	8,882	-52.0		318	16.1
250----	31	10,046	-57.5		302	23.3
200----	29	11,460	-56.2		291	23.7
175----	29	12,312	-54.7		285	24.5
150----	28	13,292	-54.7		278	24.7
125----	28	14,459	-54.8		275	26.8
100----	27	15,885	-55.6		272	28.8
80-----	26	17,317	-55.8		267	31.5
70-----	25	18,171	-55.1		262	29.0
60-----	23	19,170	-54.5		254	28.0
50-----	23	20,338	-54.4		252	31.1
40-----	22	21,765	-53.5		248	34.2
30-----	22	23,621	-53.1		242	36.7
25-----	22	24,798	-51.9		241	41.4
20-----	19	26,255	-50.0		243	39.2
15-----	18	28,172	-47.0		244	45.7
10-----	15	30,876	-41.5		244	60.2
7------	10	33,285	-40.9			

Standard pressure surface (mb.)	CHARLESTON, S. C. (1014 MB.)					
	Number of observations	Dynamic height	Temperature	Relative humidity	Wind	
					Direction	Speed
SURFACE	31	13	8.2	81	340	3.3
1,000--	31	128	9.6	73	356	3.7
950----	31	552	8.8	67	352	4.9
900----	31	1,001	7.4	65	293	8.0
850----	31	1,469	5.0	64	265	15.0
800----	31	1,963	2.7	59	275	17.3
750----	31	2,485	1.0	51	270	24.3
700----	31	3,037	- 1.6	49	274	27.0
650----	31	3,619	- 4.8	47	273	31.9
600----	31	4,250	- 8.6	47	271	37.9
550----	31	4,913	-12.7	40	272	46.0
500----	31	5,642	-17.5	37	269	51.9
450----	31	6,418	-22.7		271	58.1
400----	31	7,278	-28.7		273	62.4
350----	31	8,222	-35.3		272	70.5
300----	31	9,279	-42.9		274	80.1
250----	31	10,488	-50.6		278	86.7
200----	31	11,923	-56.0		274	92.3
175----	31	12,770	-57.7		275	92.7
150----	31	13,738	-59.6		273	81.6
125----	31	14,872	-62.5		273	69.4
100----	31	16,241	-64.9		271	58.9
80-----	30	17,599	-64.7		271	40.4
70-----	30	18,421	-63.2		266	30.7
60-----	30	19,367	-61.4		270	18.3
50-----	29	20,506	-58.1		273	12.6
40-----	28	21,921	-55.7		282	4.9
30-----	27	23,768	-52.2		252	8.0
25-----	25	24,948	-50.8		253	9.5
20-----	23	26,409	-47.5		263	15.5
15-----	17	28,322	-43.8			
10-----						
7------						

Standard pressure surface (mb.)	COLD BAY, ALASKA (1005 MB.)					
	Number of observations	Dynamic height	Temperature	Relative humidity	Wind	
					Direction	Speed
SURFACE	31	30	- 1.1	86	150	3.7
1,000--	31	69			160	3.3
950----	31	478	- 3.0	75	191	5.4
900----	31	905	- 4.6	68	215	7.0
850----	31	1,354	- 6.1	60	228	9.3
800----	31	1,827	- 7.7	56	240	10.9
750----	31	2,325	- 9.4	51	235	12.6
700----	31	2,859	-11.8	48	220	14.4
650----	31	3,418	-15.0	45	225	16.9
600----	31	4,026	-18.4	49	233	19.8
550----	31	4,664	-22.3	48	233	20.6
500----	31	5,364	-26.9	48	231	21.6
450----	31	6,109	-32.0		232	23.7
400----	31	6,939	-38.3		231	26.4
350----	31	7,845	-44.4		236	29.5
300----	31	8,863	-50.8		243	28.4
250----	31	10,036	-54.7		229	31.9
200----	31	11,466	-52.6		230	28.8
175----	31	12,332	-50.8		228	24.3
150----	30	13,341	-51.0		232	19.8
125----	30	14,526	-51.3		238	16.5
100----	30	15,972	-52.0		236	12.4
80-----	29	17,416	-52.5		248	8.4
70-----	27	18,283	-51.8		251	5.8
60-----	27	19,278	-52.3		241	3.7
50-----	26	20,454	-52.8		234	1.9
40-----	26	21,892	-53.6		319	1.2
30-----	22	23,740	-54.1		51	2.1
25-----	16	24,911	-54.0		101	4.1
20-----	9	26,357	-53.7			
15-----						
10-----						
7------						

Standard pressure surface (mb.)	COLUMBIA, MO. (987 MB.)					
	Number of observations	Dynamic height	Temperature	Relative humidity	Wind	
					Direction	Speed
SURFACE	31	238	- 0.2	85	2	0.6
1,000--	31	130				
950----	31	541	.7	73	199	1.9
900----	31	977	.1	64	261	6.8
850----	31	1,434	- 1.1	54	284	11.3
800----	31	1,917	- 2.7	53	292	13.2
750----	31	2,425	- 5.1	50	293	15.3
700----	31	2,966	- 7.8	47	285	17.5
650----	31	3,535	-10.9	42	282	21.0
600----	31	4,151	-14.6	42	276	27.2
550----	31	4,796	-19.0	42	273	29.3
500----	31	5,508	-23.8	42	275	33.8
450----	31	6,262	-29.4	42	272	38.9
400----	31	7,098	-35.9	42	271	44.7
350----	31	8,014	-42.4		269	49.2
300----	31	9,041	-48.5		269	59.8
250----	31	10,225	-54.1		270	67.2
200----	31	11,648	-55.9		272	70.7
175----	31	12,498	-55.7		271	66.1
150----	31	13,480	-55.8		271	61.4
125----	31	14,635	-57.6		272	52.5
100----	31	16,036	-59.8		273	46.2
80-----	30	17,428	-60.2		272	37.9
70-----	30	18,262	-60.1		271	32.1
60-----	29	19,233	-59.0		273	26.0
50-----	28	20,380	-58.1		271	24.3
40-----	27	21,787	-57.0		268	22.7
30-----	20	23,597	-56.1		267	26.0
25-----	18	24,737	-55.2		264	29.5
20-----	16	26,152	-53.2		264	34.0
15-----	10	28,002	-50.0			
10-----						
7------						

Standard pressure surface (mb.)	DAYTON, OHIO (981 MB.)					
	Number of observations	Dynamic height	Temperature	Relative humidity	Wind	
					Direction	Speed
SURFACE	31	297	- 0.5	80	6	2.5
1,000--	31	140				
950----	31	550	- .4	72	350	2.3
900----	31	984	- .7	69	267	2.7
850----	31	1,440	- 1.9	62	268	5.6
800----	31	1,921	- 3.4	55	271	8.9
750----	31	2,429	- 5.5	50	268	11.5
700----	31	2,969	- 8.1	48	269	12.4
650----	31	3,538	-11.4	45	270	14.8
600----	31	4,152	-15.0	40	272	18.5
550----	31	4,800	-19.1	40	271	22.9
500----	31	5,508	-23.9	40	269	26.6
450----	31	6,264	-29.5	41	269	30.7
400----	31	7,101	-35.7	37	266	34.4
350----	31	8,017	-42.6		263	41.6
300----	31	9,043	-49.2		263	51.7
250----	31	10,222	-55.6		265	62.2
200----	31	11,640	-56.6		267	64.9
175----	31	12,490	-55.5		268	64.1
150----	31	13,473	-55.7		271	60.0
125----	31	14,631	-57.1		270	53.8
100----	30	16,042	-58.4		270	46.0
80-----	30	17,441	-59.1		269	38.9
70-----	30	18,281	-59.1		269	35.8
60-----	30	19,247	-58.1		269	32.3
50-----	29	20,394	-57.0		268	29.3
40-----	27	21,815	-56.2		264	26.2
30-----	26	23,655	-55.2		263	23.3
25-----	25	24,821	-53.8		262	24.5
20-----	23	26,254	-51.5		258	27.0
15-----	23	28,135	-47.9		253	34.4
10-----	16	30,842	-42.6		255	43.5

Standard pressure surface (mb.)	DENVER, COLO. (834 MB.)					
	Number of observations	Dynamic height	Temperature	Relative humidity	Wind	
					Direction	Speed
SURFACE	31	1,611	- 3.7	64	231	1.2
1,000--	31	149				
950----	31	563				
900----	31	998				
850----	31	1,455				
800----	31	1,938	- .6	51	299	4.3
750----	31	2,450	- 3.4	45	304	9.7
700----	31	2,994	- 7.3	45	301	13.4
650----	31	3,566	-11.3	45	300	15.2
600----	31	4,176	-15.7	44	294	17.9
550----	31	4,823	-20.2	42	292	20.8
500----	31	5,526	-25.0	40	288	23.7
450----	31	6,275	-30.7		284	24.3
400----	31	7,109	-37.1		279	26.2
350----	31	8,018	-44.1		280	30.3
300----	31	9,036	-51.3		282	34.4
250----	31	10,207	-55.9		276	42.6
200----	31	11,617	-58.2		271	46.0
175----	31	12,461	-56.4		270	46.6
150----	31	13,441	-55.9		272	44.5
125----	31	14,597	-57.6		273	39.4
100----	31	16,000	-58.6		271	34.2
80-----	30	17,393	-59.7		269	28.6
70-----	30	18,232	-59.8		274	25.3
60-----	30	19,192	-59.7		276	21.8
50-----	28	20,330	-58.7		277	17.7
40-----	25	21,750	-57.8		282	14.8
30-----	23	23,592	-56.2		292	12.2
25-----	18	24,777	-55.5		283	10.9
20-----	13	26,211	-54.0		270	13.8
15-----						
10-----						

Standard pressure surface (mb.)	DODGE CITY, KANS. (922 MB.)					
	Number of observations	Dynamic height	Temperature	Relative humidity	Wind	
					Direction	Speed
SURFACE	31	792	- 1.2	77	264	1.7
1,000--	31	137				
950----	31	552				
900----	31	984	1.1	55	293	1.7
850----	31	1,446	2.3	43	299	8.4
800----	31	1,934	.7	40	297	14.8
750----	31	2,450	- 1.9	37	291	16.1
700----	31	2,996	- 5.4	37	289	18.8
650----	31	3,569	- 9.3	36	281	22.2
600----	31	4,188	-13.7	36	278	23.3
550----	31	4,844	-18.1	33	271	23.9
500----	31	5,550	-23.4	34	271	29.5
450----	31	6,306	-29.2		268	32.4
400----	31	7,144	-35.5		268	38.3
350----	31	8,061	-42.1		269	44.3
300----	31	9,091	-48.5		271	52.5
250----	30	10,270	-54.5		271	56.7
200----	29	11,689	-56.8		270	58.5
175----	29	12,536	-56.3		269	59.5
150----	29	13,513	-57.0		267	57.5
125----	29	14,663	-58.4		267	49.4
100----	27	16,062	-60.5		268	42.2
80-----	27	17,449	-61.0		268	33.4
70-----	27	18,284	-60.8		268	28.0
60-----	26	19,246	-59.8		272	24.7
50-----	26	20,388	-59.0		271	24.1
40-----	25	21,800	-57.0		268	20.0
30-----	22	23,642	-55.7		273	16.7
25-----	22	24,806	-54.6		281	18.1
20-----	18	26,248	-53.1		273	19.2
15-----	15	28,116	-49.3		269	24.5
10-----	6	30,873	-43.1			

Standard pressure surface (mb.)	EL PASO, TEXAS (881 MB.)					
	Number of observations	Dynamic height	Temperature	Relative humidity	Wind	
					Direction	Speed
SURFACE	31	1,193	4.9	51	271	3.3
1,000--	31	141				
950----	31	567				
900----	31	1,022				
850----	31	1,488	7.0	37	270	5.8
800----	31	1,984	4.4	37	261	10.7
750----	31	2,505	.8	38	260	15.7
700----	31	3,058	- 2.5	36	258	20.8
650----	31	3,639	- 6.0	32	261	26.8
600----	31	4,265	-10.0		262	29.9
550----	31	4,923	-14.4		267	31.5
500----	31	5,647	-19.5		264	40.2
450----	31	6,417	-24.8		262	47.8
400----	31	7,272	-30.4		266	54.2
350----	31	8,211	-36.4		266	66.3
300----	31	9,263	-43.8		266	77.5
250----	31	10,469	-51.6		270	82.4
200----	31	11,897	-57.4		270	90.2
175----	31	12,737	-59.2		269	83.9
150----	31	13,701	-60.8		268	73.8
125----	30	14,829	-63.9		266	63.3
100----	29	16,186	-66.4		265	51.7
80-----	27	17,531	-67.0		268	36.5
70-----	26	18,345	-65.2		266	24.3
60-----	25	19,289	-62.9		261	18.5
50-----	25	20,416	-60.9		264	8.9
40-----	25	21,815	-58.0		281	10.1
30-----	22	23,646	-56.2		264	8.5
25-----	22	24,810	-54.0		275	12.2
20-----	21	26,251	-50.3		264	18.8
15-----	17	28,155	-46.0		263	21.0
10-----	7	30,910	-41.5			

Standard pressure surface (mb.)	ELY, NEV. (806 MB.)					
	Number of observations	Dynamic height	Temperature	Relative humidity	Wind	
					Direction	Speed
SURFACE	31	1,908	- 6.4	73	196	5.6
1,000--	31	183				
950----	31	596				
900----	31	1,030				
850----	31	1,482				
800----	31	1,963			189	5.8
750----	31	2,473	- 4.5	53	207	4.1
700----	31	3,013	- 7.4	50	258	6.6
650----	31	3,582	-10.9	48	277	10.7
600----	31	4,196	-14.9	48	277	13.2
550----	31	4,844	-19.1	43	283	15.2
500----	31	5,552	-24.0	41	276	17.5
450----	31	6,308	-30.0	40	288	17.1
400----	31	7,142	-35.9	37	284	17.1
350----	31	8,057	-42.9		280	18.1
300----	31	9,082	-49.7		287	17.1
250----	31	10,258	-55.5		281	25.1
200----	30	11,673	-57.4		276	30.5
175----	30	12,519	-56.3		276	31.5
150----	30	13,500	-56.1		270	31.3
125----	29	14,657	-56.8		270	28.6
100----	29	16,068	-58.2		272	25.6
80-----	29	17,472	-58.5		275	16.9
70-----	29	18,320	-58.6		273	12.6
60-----	28	19,285	-58.1		283	9.9
50-----	27	20,443	-57.3		298	6.6
40-----	27	21,857	-56.9		322	5.2
30-----	24	23,689	-56.0		327	6.8
25-----	22	24,858	-55.3		326	8.0
20-----	17	26,289	-54.2		312	5.8
15-----	8	28,188	-51.6			
10-----						

Standard pressure surface (mb.)	ENIWETOK, MARSHALL IS. (1011 MB.)					
	Number of observations	Dynamic height	Temperature	Relative humidity	Wind	
					Direction	Speed
SURFACE	31	5	26.8	74	72	17.1
1,000--	31	106	25.8	76	72	19.0
950----	31	558	21.8	84	72	21.4
900----	31	1,026	18.6	79	78	21.8
850----	31	1,515	15.9	72	81	20.0
800----	31	2,030	14.7	48	86	16.9
750----	31	2,575	13.5	29	83	13.6
700----	31	3,152	10.6	22	79	13.0
650----	31	3,765	7.4	21	81	13.8
600----	31	4,421	3.7	19	72	15.7
550----	31	5,117	- .6	18	64	16.3
500----	31	5,877	- 5.6	18	57	15.7
450----	31	6,689	-10.8	18	49	17.5
400----	31	7,592	-16.8	18	38	15.2
350----	31	8,582	-23.6	21	28	12.0
300----	31	9,691	-31.7	20	6	9.9
250----	31	10,955	-41.5		341	11.5
200----	31	12,431	-53.5		298	9.9
175----	31	13,277	-60.2		297	11.5
150----	31	14,222	-67.4		294	11.1
125----	31	15,301	-74.7		311	7.4
100----	30	16,578	-80.9		29	5.8
80-----	27	17,828	-80.2		49	8.7
70-----	25	18,590	-75.8		358	3.1
60-----	25	19,492	-71.0		277	7.2
50-----	24	20,581	-67.0		271	11.7
40-----	23	21,942	-61.2		260	8.4
30-----	22	23,756	-55.4		78	6.6
25-----	22	24,924	-53.3		91	15.7
20-----	22	26,367	-51.0		84	27.2
15-----	21	28,259	-46.1		86	41.2
10-----	21	30,998	-40.1		87	51.5
7------	20	33,438	-37.2		86	58.1
*5------	14	35,778	-33.2		88	66.1

Standard pressure surface (mb.)	FAIRBANKS, ALASKA (998 MB.)					
	Number of observations	Dynamic height	Temperature	Relative humidity	Wind	
					Direction	Speed
SURFACE	31	135	-14.7	75	354	3.3
1,000--	31	121			9	1.9
950----	31	513	-11.3	54	58	1.9
900----	31	927	-12.2	54	165	1.7
850----	31	1,364	-13.6	55	209	2.9
800----	31	1,823	-15.4	54	230	5.2
750----	31	2,305	-17.6	51	242	7.0
700----	31	2,823	-20.2	48	255	7.6
650----	31	3,364	-23.4	47	266	9.7
600----	31	3,951	-26.8	46	275	11.3
550----	31	4,566	-30.4	46	272	15.7
500----	31	5,247	-34.4	41	274	15.9
450----	31	5,969	-38.7		272	18.8
400----	31	6,780	-43.2		271	21.2
350----	31	7,670	-47.5		275	21.6
300----	31	8,680	-50.7		274	23.7
250----	31	9,868	-50.5		278	22.9
200----	30	11,328	-48.5		282	22.2
175----	30	12,208	-48.1		282	20.4
150----	30	13,223	-48.3		282	19.2
125----	30	14,420	-49.4		288	16.9
100----	30	15,880	-50.2		288	16.5
80-----	30	17,337	-50.5		294	15.2
70-----	30	18,210	-51.4		297	15.9
60-----	28	19,197	-51.6		299	15.3
50-----	27	20,373	-52.3		308	16.7
40-----	27	21,813	-53.3		306	17.7
30-----	23	23,663	-53.7		313	20.6
25-----	17	24,882	-53.4		319	22.5
20-----	15	26,292	-53.4		322	23.9
15-----						
10-----						
7------						
*5------						

Standard pressure surface (mb.)	FLINT, MICH. (990 MB.)					
	Number of observations	Dynamic height	Temperature	Relative humidity	Wind	
					Direction	Speed
SURFACE	31	234	- 3.3	83		0.0
1,000--	31	152				
950----	31	561	- 2.7	69	38	1.9
900----	31	987	- 3.2	63	5	2.3
850----	31	1,439	- 4.0	54	311	2.3
800----	31	1,916	- 5.6	48	281	4.1
750----	31	2,419	- 7.6	48	274	6.4
700----	31	2,955	-10.2	46	278	8.5
650----	31	3,517	-13.5	44	274	10.3
600----	31	4,127	-17.0	45	276	12.8
550----	31	4,770	-21.3	45	275	15.7
500----	31	5,471	-26.3	41	274	19.2
450----	31	6,220	-31.8	38	271	23.1
400----	31	7,047	-38.0		271	24.1
350----	31	7,953	-44.7		267	29.9
300----	31	8,968	-51.9		265	35.0
250----	31	10,132	-57.6		262	40.8
200----	31	11,539	-56.8		269	44.3
175----	31	12,388	-55.4		269	43.5
150----	31	13,370	-55.6		271	42.7
125----	31	14,531	-55.9		273	39.2
100----	31	15,947	-57.1		271	37.1
80-----	31	17,357	-57.7		269	31.7
70-----	31	18,204	-57.8		270	30.1
60-----	31	19,173	-57.7		270	30.1
50-----	31	20,327	-56.8		267	28.6
40-----	30	21,739	-56.2		265	28.8
30-----	29	23,579	-54.7		257	26.8
25-----	29	24,748	-53.9		257	29.3
20-----	26	26,186	-52.1		258	28.6
15-----	19	28,087	-48.6		253	35.2
10-----	6	30,723	-43.9			
7------						
*5------						

Standard pressure surface (mb.)	FORT WORTH, TEXAS (995 MB.)					
	Number of observations	Dynamic height	Temperature	Relative humidity	Wind	
					Direction	Speed
SURFACE	31	180	8.0	68	211	1.2
1,000--	31	139			3	2.3
950----	31	562	7.7	59	212	4.3
900----	31	1,009	7.2	50	243	8.0
850----	31	1,479	6.4	43	267	14.0
800----	31	1,974	3.9	42	273	17.5
750----	31	2,495	1.0	39	272	21.6
700----	31	3,047	- 2.3	38	271	26.2
650----	31	3,631	- 5.4	39	265	29.3
600----	31	4,257	- 8.9		261	34.6
550----	31	4,921	-13.2		258	41.0
500----	31	5,645	-18.2		258	47.2
450----	31	6,419	-24.0		258	51.9
400----	31	7,273	-30.2	39	259	59.3
350----	31	8,210	-36.6		262	68.6
300----	31	9,263	-43.8		265	77.1
250----	31	10,466	-51.5		269	86.5
200----	31	11,895	-56.8		274	94.2
175----	31	12,738	-58.2		274	86.1
150----	31	13,703	-60.4		272	79.3
125----	30	14,829	-63.3		272	63.7
100----	29	16,195	-65.4		272	51.5
80-----	27	17,552	-65.2		277	36.7
70-----	25	18,372	-64.9		275	28.0
60-----	24	19,312	-62.6		269	21.2
50-----	24	20,442	-59.8		272	12.6
40-----	24	21,847	-57.2		264	7.4
30-----	24	23,680	-54.2		269	11.3
25-----	23	24,860	-52.7		261	13.4
20-----	23	26,307	-50.5		265	18.7
15-----	13	28,264	-46.1		266	23.1
10-----	6	31,019	-40.4			
7------						
*5------						

Standard pressure surface (mb.)	GLASGOW, MONT. (933 MB.)					
	Number of observations	Dynamic height	Temperature	Relative humidity	Wind	
					Direction	Speed
SURFACE	31	696	-10.1	88	64	2.3
1,000--	31	159				
950----	31	557				
900----	31	979	- 5.0	79	312	1.4
850----	31	1,429	- 4.0	66	283	7.4
800----	31	1,906	- 5.4	60	277	10.1
750----	31	2,420	- 8.6	60	280	12.0
700----	31	2,941	-11.9	61	286	13.4
650----	31	3,497	-15.2	58	290	15.3
600----	31	4,105	-18.7	55	292	18.8
550----	31	4,745	-22.8	50	295	20.0
500----	31	5,440	-27.8	50	294	22.0
450----	31	6,183	-33.2	48	297	24.1
400----	31	7,005	-39.3		298	28.2
350----	31	7,907	-46.2		299	27.4
300----	31	8,914	-53.7		295	33.6
250----	31	10,070	-59.3		296	34.8
200----	31	11,465	-58.7		292	32.8
175----	31	12,310	-56.3		292	33.8
150----	30	13,293	-55.3		292	29.5
125----	30	14,455	-55.7		292	29.0
100----	30	15,875	-56.3		296	27.4
80-----	29	17,284	-57.1		295	25.1
70-----	29	18,130	-57.0		294	24.1
60-----	27	19,119	-56.3		292	21.6
50-----	25	20,284	-56.2		305	22.0
40-----	23	21,696	-56.9		308	20.4
30-----	21	23,520	-57.0		318	20.4
25-----	12	24,728	-56.8		306	16.1
20-----	10	26,181	-55.5			
15-----						
10-----						
7------						
*5------						

See reference note at end of table

*4------ 11 37,339 -31.7

3------ 8 39,335 -31.1

RAWINSONDE DATA

Average monthly values

Standard pressure surface (mb.)	GRAND JUNCTION, COLO. (850 MB.)					
	Number of observations	Dynamic height	Temperature	Relative humidity	Wind	
					Direction	Speed
SURFACE	31	1,474	- 0.5	58	[illegible]	3.7
1,000--	31	150				
950----	31	569				
900----	31	1,009				
850----	31	1,471			105	3.3
800----	31	1,957	- .5	41	151	5.4
750----	31	2,469	- 3.8	43	219	3.9
700----	31	3,011	- 7.7	47	253	8.0
650----	31	3,575	-11.8	48	261	12.8
600----	31	4,192	-15.9	47	265	15.2
550----	31	4,837	-20.0	43	269	19.6
500----	31	5,544	-24.8	39	271	22.2
450----	31	6,295	-30.4		275	22.3
400----	31	7,129	-37.1		278	24.9
350----	31	8,039	-44.0		278	29.5
300----	30	9,050	-50.7		278	33.8
250----	30	10,224	-55.8		283	36.5
200----	29	11,639	-56.8		277	41.8
175----	29	12,486	-56.2		273	41.8
150----	29	13,466	-56.4		273	36.3
125----	29	14,622	-57.1		267	37.5
100----	29	16,025	-59.8		271	29.1
80-----	28	17,418	-60.6		271	23.9
70-----	28	18,259	-60.1		273	20.0
60-----	28	19,213	-59.6		276	16.3
50-----	27	20,359	-58.8		280	15.0
40-----	27	21,762	-58.3		303	12.2
30-----	26	23,580	-57.1		301	13.8
25-----	25	24,731	-56.9		301	16.9
20-----	22	26,135	-55.3		296	17.5
15-----	20	27,998	-52.7		288	17.9
10-----	18	30,651	-47.0		268	33.8
7------	15	33,059	-42.6		269	45.3
5------	13	35,346	-38.4		269	52.8

Standard pressure surface (mb.)	GREAT FALLS, MONT. (885 MB.)					
	Number of observations	Dynamic height	Temperature	Relative humidity	Wind	
					Direction	Speed
SURFACE	31	1,123	- 7.1	72	247	4.3
1,000--	31	156				
950----	31	562				
900----	31	991				
850----	31	1,439	- 4.3	56	254	10.3
800----	31	1,916	- 5.0	60	266	10.5
750----	31	2,415	- 8.3	61	273	14.0
700----	31	2,953	-11.5	63	279	16.3
650----	31	3,510	-14.6	64	283	17.3
600----	31	4,120	-18.1	58	280	18.1
550----	31	4,756	-22.4	52	283	18.8
500----	31	5,459	-27.2	50	288	20.0
450----	31	6,198	-33.0	47	279	20.6
400----	31	7,028	-39.4		274	24.1
350----	31	7,929	-46.3		280	28.4
300----	31	8,937	-53.2		282	31.9
250----	31	10,095	-59.1		291	34.8
200----	31	11,489	-59.2		286	32.8
175----	31	12,332	-56.5		290	31.7
150----	31	13,313	-55.4		291	29.3
125----	30	14,473	-56.3		290	25.8
100----	29	15,886	-57.1		289	25.6
80-----	27	17,293	-57.2		292	23.3
70-----	27	18,137	-57.3		290	24.1
60-----	27	19,110	-57.5		299	21.6
50-----	26	20,275	-57.0		304	19.0
40-----	26	21,685	-57.5		307	19.4
30-----	21	23,507	-57.6		311	21.2
25-----	21	24,680	-57.0		315	20.8
20-----	19	26,103	-56.2		312	24.3
15-----	15	27,906	-54.5		304	27.2
10-----	11	30,470	-51.6		294	32.3
7------	8	32,815	-50.7			
5------	6	35,086	-44.9			

Standard pressure surface (mb.)	GREEN BAY, WIS. (992 MB.)					
	Number of observations	Dynamic height	Temperature	Relative humidity	Wind	
					Direction	Speed
SURFACE	31	210	- 5.6	80	25	2.9
1,000--	31	146				
950----	31	550	- 3.5	72	53	3.5
900----	31	976	- 4.6	69	108	1.4
850----	31	1,425	- 5.6	61	220	1.2
800----	31	1,900	- 6.6	50	262	2.1
750----	31	2,398	- 9.0	49	282	3.3
700----	31	2,934	-11.3	45	270	5.1
650----	31	3,495	-14.3	43	263	7.2
600----	31	4,102	-17.9	42	268	9.5
550----	31	4,742	-22.2	42	268	12.8
500----	31	5,440	-27.1	43	273	15.9
450----	31	6,185	-32.4	40	270	16.9
400----	31	7,010	-38.9		272	19.0
350----	31	7,914	-45.6		273	23.1
300----	31	8,925	-52.8		269	28.4
250----	31	10,087	-57.8		270	33.0
200----	31	11,495	-56.8		273	38.3
175----	31	12,345	-55.6		272	37.3
150----	31	13,328	-55.3		273	39.4
125----	31	14,491	-55.6		274	37.9
100----	31	15,910	-56.7		274	36.7
80-----	31	17,322	-57.6		272	33.4
70-----	31	18,167	-58.1		270	32.3
60-----	31	19,136	-57.9		274	31.5
50-----	31	20,287	-57.3		274	29.9
40-----	31	21,700	-56.7		270	28.8
30-----	29	23,537	-55.9		270	29.5
25-----	27	24,709	-55.2		273	28.2
20-----	24	26,144	-52.8		273	30.1
15-----	15	27,983	-50.6		282	39.4
10-----						
7------						
5------						

Standard pressure surface (mb.)	GREENSBORO, N. C. (984 MB.)					
	Number of observations	Dynamic height	Temperature	Relative humidity	Wind	
					Direction	Speed
SURFACE	31	273	2.8	79	355	2.5
1,000--	31	137				
950----	31	553	4.1	63	337	5.1
900----	31	994	1.9	64	309	5.2
850----	31	1,454	.6	66	292	8.9
800----	31	1,940	- .7	60	273	12.6
750----	31	2,454	- 2.8	56	275	18.5
700----	31	2,998	- 5.3	52	271	22.7
650----	31	3,573	- 8.5	45	275	25.5
600----	31	4,194	-11.8		278	29.1
550----	31	4,852	-15.8		275	35.2
500----	31	5,567	-20.5		275	40.8
450----	31	6,331	-26.3	33	273	45.3
400----	31	7,180	-32.4		274	55.6
350----	31	8,109	-38.9		274	66.1
300----	31	9,151	-45.9		273	71.5
250----	31	10,346	-52.9		274	74.6
200----	31	11,771	-56.3		276	79.3
175----	31	12,619	-56.6		277	77.1
150----	31	13,594	-58.1		276	65.9
125----	31	14,738	-59.9		275	60.0
100----	31	16,124	-61.9		273	50.9
80-----	30	17,507	-62.6		269	39.4
70-----	30	18,338	-61.7		268	33.4
60-----	30	19,290	-59.7		269	24.1
50-----	30	20,433	-58.6		273	19.2
40-----	30	21,840	-56.7		277	17.9
30-----	29	23,682	-54.1		267	12.0
25-----	29	24,854	-53.1		256	16.3
20-----	29	26,299	-50.7		263	20.2
15-----	28	28,185	-47.4		263	26.4
10-----	18	30,896	-40.4		254	24.9
7------						
5------						

Standard pressure surface (mb.)	GUAM, MARIANA IS. (1000 MB.)					
	Number of observations	Dynamic height	Temperature	Relative humidity	Wind	
					Direction	Speed
SURFACE	31	111	24.8	85	78	6.8
1,000--	31	112			72	6.6
950----	31	561	21.9	81	83	20.8
900----	31	1,029	18.8	79	90	21.8
850----	31	1,519	16.7	68	90	19.4
800----	31	2,035	15.6	44	89	16.5
750----	31	2,582	13.6		87	15.5
700----	31	3,159	10.9		82	14.4
650----	31	3,774	7.2		85	13.8
600----	31	4,427	3.6		87	13.8
550----	31	5,127	- .6		86	14.4
500----	31	5,883	- 5.3		89	14.0
450----	31	6,699	-10.5		91	15.0
400----	31	7,599	-16.3		81	11.1
350----	31	8,591	-23.1		65	6.2
300----	31	9,701	-31.3		79	2.9
250----	31	10,964	-41.5		262	2.7
200----	31	12,436	-53.8		231	6.4
175----	31	13,280	-60.8		226	8.2
150----	31	14,220	-68.6		219	8.5
125----	30	15,290	-76.4		190	8.9
100----	30	16,550	-82.7		147	8.5
80-----	28	17,795	-81.9		104	5.2
70-----	28	18,551	-77.8		85	1.2
60-----	27	19,448	-72.2		248	1.7
50-----	26	20,537	-67.0		247	6.6
40-----	26	21,903	-61.8		256	4.5
30-----	26	23,720	-54.2		84	8.0
25-----	26	24,895	-52.3		85	15.9
20-----	26	26,346	-50.1		88	21.8
15-----	23	28,239	-46.1		80	32.6
10-----	12	30,921	-42.5		85	36.7
7------						
5------						

Standard pressure surface (mb.)	HILO, HAWAII (1016 MB.)					
	Number of observations	Dynamic height	Temperature	Relative humidity	Wind	
					Direction	Speed
SURFACE	31	11	19.0	86	246	4.3
1,000--	31	149	20.3	80	248	3.5
950----	31	591	17.5	80	111	2.9
900----	31	1,052	14.3	82	98	5.2
850----	31	1,533	11.3	85	112	4.3
800----	31	2,038	8.6	83	111	3.5
750----	31	2,576	5.3	70	147	5.1
700----	31	3,132	2.7	45	193	2.1
650----	31	3,728	.6		236	3.9
600----	31	4,369	- 3.0		258	6.2
550----	30	5,050	- 7.2		271	14.0
500----	30	5,791	-12.0		264	13.4
450----	30	6,588	-17.6		267	17.7
400----	30	7,462	-24.0		264	22.2
350----	29	8,422	-31.0		261	30.3
300----	28	9,500	-38.6		261	37.5
250----	28	10,728	-47.6		269	48.0
200----	28	12,170	-56.7		267	61.2
175----	28	13,009	-60.6		269	63.3
150----	28	13,959	-64.9		272	58.7
125----	28	15,058	-69.4		271	46.0
100----	28	16,375	-73.4		272	32.4
80-----	27	17,675	-74.3		270	19.8
70-----	24	18,459	-71.9		263	14.8
60-----	22	19,377	-68.1		247	8.9
50-----	21	20,485	-63.4		241	6.2
40-----	20	21,872	-59.4		317	1.2
30-----	20	23,693	-55.0		76	6.0
25-----	20	24,866	-52.4		92	8.5
20-----	19	26,318	-49.8		89	9.5
15-----	18	28,216	-47.1		87	12.8
10-----	14	30,939	-42.0		93	19.0
7------	10	33,385	-38.7		88	19.4
5------	10	35,707	-36.0			

Standard pressure surface (mb.)	HUNTINGTON, W. VA. (985 MB.)					
	Number of observations	Dynamic height	Temperature	Relative humidity	Wind	
					Direction	Speed
SURFACE	31	246	2.4	71	255	0.8
1,000--	31	126				
950----	31	543	2.1	63	254	1.7
900----	31	977	.3	66	255	6.6
850----	31	1,434	- 1.3	64	267	9.9
800----	31	1,916	- 2.9	59	281	11.5
750----	31	2,425	- 5.1	55	275	13.2
700----	31	2,966	- 7.6	49	274	15.7
650----	31	3,535	-10.5	42	277	18.1
600----	30	4,149	-13.9	40	272	22.0
550----	30	4,798	-18.2	41	270	25.3
500----	30	5,509	-23.1	38	270	28.8
450----	30	6,264	-28.5		270	35.2
400----	30	7,106	-34.8		270	40.4
350----	30	8,026	-41.4		271	46.6
300----	30	9,058	-48.1		272	55.8
250----	30	10,243	-54.3		273	57.7
200----	30	11,664	-56.8		277	64.3
175----	29	12,514	-56.5		275	57.7
150----	29	13,493	-56.3		276	51.1
125----	29	14,645	-58.3		274	44.7
100----	29	16,044	-60.2		271	42.9
80-----	29	17,440	-59.5		271	36.3
70-----	29	18,280	-59.1		272	33.0
60-----	29	19,246	-58.3		272	28.0
50-----	29	20,397	-57.4		272	25.8
40-----	29	21,812	-56.3		270	22.5
30-----	28	23,652	-55.1		269	20.0
25-----	28	24,822	-53.3		262	15.3
20-----	28	26,266	-51.0		259	20.0
15-----	20	28,134	-48.8		257	29.1
10-----	8	30,835	-42.1			
7------						
5------						

Standard pressure surface (mb.)	INTERNAT. FALLS, MINN. (974 MB.)					
	Number of observations	Dynamic height	Temperature	Relative humidity	Wind	
					Direction	Speed
SURFACE	31	360	- 6.4	76	66	1.2
1,000--	31	154				
950----	31	556	- 5.1	73	143	2.3
900----	31	981	- 6.4	72	160	4.3
850----	31	1,427	- 7.5	71	184	4.5
800----	31	1,898	- 8.9	68	202	2.1
750----	31	2,393	-10.5	62	239	2.3
700----	31	2,925	-12.7	60	263	2.5
650----	31	3,484	-15.6	54	281	6.2
600----	31	4,088	-18.9	47	273	8.7
550----	31	4,724	-23.1	45	272	10.5
500----	31	5,422	-27.9	43	268	14.2
450----	31	6,167	-33.5	38	271	18.1
400----	31	6,988	-39.8		272	18.8
350----	31	7,887	-46.8		277	25.8
300----	31	8,892	-53.9		272	24.5
250----	31	10,046	-59.7		271	25.3
200----	31	11,443	-57.6		279	26.2
175----	30	12,290	-55.6		276	29.3
150----	30	13,273	-55.1		277	28.6
125----	30	14,435	-55.6		279	29.5
100----	29	15,856	-56.4		282	28.8
80-----	29	17,272	-56.7		282	27.2
70-----	28	18,125	-56.6		284	28.8
60-----	27	19,108	-57.0		287	27.2
50-----	26	20,268	-56.7		283	25.5
40-----	25	21,674	-57.0		285	24.5
30-----	23	23,542	-55.8		282	21.2
25-----	23	24,705	-55.0		283	21.0
20-----	21	26,158	-53.0		288	15.0
15-----	20	28,047	-50.9		288	17.9
10-----	17	30,753	-46.3		277	25.6
7------	15	33,181	-40.7		260	29.7
5------	5	35,471	-39.6			

Standard pressure surface (mb.)	JACKSON, MISS. (1005 MB.)					
	Number of observations	Dynamic height	Temperature	Relative humidity	Wind	
					Direction	Speed
SURFACE	31	94	7.3	79	83	0.6
1,000--	31	133			32	1.2
950----	31	556	8.3	60	270	3.7
900----	31	1,003	7.6	55	273	8.5
850----	31	1,473	5.8	46	279	13.4
800----	31	1,967	3.6	42	284	15.5
750----	31	2,487	1.5	38	277	21.2
700----	31	3,042	- .9		276	26.2
650----	31	3,630	- 4.1		279	28.2
600----	31	4,257	- 7.8		275	33.4
550----	31	4,925	-12.2		272	40.6
500----	31	5,650	-17.1		272	46.0
450----	31	6,426	-22.3		268	51.9
400----	31	7,287	-28.5		267	58.3
350----	31	8,231	-35.1		265	66.3
300----	31	9,290	-42.6		264	76.2
250----	31	10,499	-50.5		273	91.7
200----	31	11,931	-56.6		279	97.0
175----	31	12,774	-58.9		279	90.2
150----	31	13,737	-61.6		274	81.4
125----	31	14,861	-63.7		277	69.0
100----	30	16,223	-65.6			
80-----	30	17,572	-67.1			
70-----	30	18,383	-66.2		284	29.3
60-----	30	19,319	-63.5		281	21.0
50-----	29	20,452	-59.9		266	13.4
40-----	28	21,852	-57.1		276	9.3
30-----	28	23,683	-54.6		288	8.5
25-----	27	24,852	-53.2		277	8.0
20-----	25	26,294	-50.4		274	14.4
15-----	7	28,173	-48.8			
10-----						
7------						
5------						

Standard pressure surface (mb.)	JACKSONVILLE, FLA. (1016 MB.)					
	Number of observations	Dynamic height	Temperature	Relative humidity	Wind	
					Direction	Speed
SURFACE	31	5	10.5	88	287	2.7
1,000--	31	135	11.9	78	293	3.3
950----	31	564	10.7	69	284	5.2
900----	31	1,014	9.1	62	264	8.9
850----	31	1,487	7.3	53	257	13.8
800----	31	1,984	5.5	46	272	21.0
750----	31	2,510	3.4	40	276	25.3
700----	31	3,068	.9	36	272	32.4
650----	31	3,661	- 2.2	39	271	37.3
600----	31	4,292	- 6.0	38	272	43.5
550----	31	4,963	-10.6		272	49.7
500----	31	5,693	-15.8		272	56.3
450----	31	6,474	-20.9		272	62.0
400----	31	7,341	-26.7		277	68.4
350----	30	8,295	-33.0		278	77.1
300----	29	9,359	-40.6		277	82.8
250----	29	10,578	-48.9		278	94.0
200----	27	12,016	-56.6		279	100.6
175----	27	12,858	-58.9		274	91.7
150----	26	13,821	-61.7		274	78.7
125----	26	14,942	-64.9		272	61.8
100----	25	16,290	-68.0		276	58.3
80-----	25	17,624	-68.8			
70-----	24	18,428	-67.7			
60-----	24	19,353	-64.4			
50-----	23	20,474	-60.3		246	5.1
40-----	23	21,878	-56.3		260	4.1
30-----	23	23,717	-53.2		240	4.5
25-----	23	24,895	-51.6		284	5.4
20-----	22	26,351	-48.7		294	5.6
15-----	22	28,256	-45.0		285	10.9
10-----	17	31,003	-38.5		270	17.9
7------	10	33,446	-34.0			
5------						

Standard pressure surface (mb.)	KING SALMON, ALASKA (1008 MB.)					
	Number of observations	Dynamic height	Temperature	Relative humidity	Wind	
					Direction	Speed
SURFACE	31	15	-10.1	83	50	3.7
1,000--	31	79			24	4.5
950----	31	482	- 6.3	67	86	6.2
900----	31	902	- 7.4	62	127	4.1
850----	31	1,347	- 8.7	57	134	2.1
800----	31	1,815	-10.2	47	261	2.5
750----	31	2,312	-12.4	44	270	6.2
700----	31	2,835	-14.8	44	266	9.1
650----	31	3,388	-18.1	43	262	12.2
600----	31	3,986	-21.7	41	263	13.8
550----	31	4,617	-25.5	42	260	17.7
500----	31	5,309	-29.2	40	264	21.6
450----	31	6,050	-33.7		266	24.1
400----	31	6,873	-38.8		266	28.6
350----	31	7,779	-44.5		267	31.7
300----	31	8,798	-49.8		267	34.4
250----	31	9,984	-52.0		262	32.1
200----	31	11,430	-51.4		264	25.5
175----	31	12,301	-50.0		261	21.6
150----	30	13,308	-49.9		266	19.0
125----	29	14,503	-50.4		268	15.9
100----	29	15,954	-51.5		277	12.2
80-----	29	17,406	-51.1		278	10.5
70-----	29	18,275	-51.3		286	10.3
60-----	29	19,276	-51.8		289	8.4
50-----	28	20,453	-52.4		297	7.4
40-----	28	21,894	-52.9		307	7.8
30-----	26	23,748	-53.6		326	8.4
25-----	25	24,918	-53.9		323	8.9
20-----	16	26,353	-54.0		332	13.6
15-----	6	28,176	-55.0			
10-----						
7------						
5------						
4------						

Standard pressure surface (mb.)	KOROR, CAROLINE IS. (1007 MB.)					
	Number of observations	Dynamic height	Temperature	Relative humidity	Wind	
					Direction	Speed
SURFACE	31	30	26.0	89	70	6.4
1,000--	31	88	25.7	87	70	8.2
950----	31	535	23.1	85	73	17.3
900----	31	1,011	20.3	81	80	18.5
850----	31	1,504	17.7	74	88	17.7
800----	31	2,021	15.2	66	87	16.3
750----	31	2,565	12.4	65	84	16.5
700----	31	3,143	9.5	58	84	16.7
650----	31	3,755	6.1	52	87	17.3
600----	31	4,408	2.4	55	89	18.1
550----	31	5,101	- 1.3	53	95	17.3
500----	31	5,862	- 5.6	55	100	20.4
450----	31	6,679	-10.1	49	95	21.8
400----	31	7,582	-15.6	44	93	21.4
350----	31	8,576	-22.4	44	95	16.5
300----	31	9,689	-30.9	41	108	14.6
250----	31	10,955	-41.3		119	17.9
200----	30	12,429	-53.8		130	20.2
175----	29	13,274	-61.0		134	22.5
150----	27	14,215	-68.7		130	25.6
125----	26	15,284	-76.8		120	22.2
100----	23	16,544	-81.9		102	11.5
80-----	18	17,790	-79.0		91	7.4
70-----	16	18,557	-75.8		219	2.9
60-----	16	19,457	-71.3		270	9.7
50-----	16	20,546	-67.8		279	14.6
40-----	16	21,901	-63.6		280	21.0
30-----	16	23,693	-57.1		267	5.6
25-----	16	24,855	-54.1		97	17.1
20-----	15	26,294	-51.5		86	34.2
15-----	11	28,172	-47.4		84	45.9
10-----	9	30,887	-43.0			
7------						
5------						
4------						

Standard pressure surface (mb.)	KOTZEBUE, ALASKA (1016 MB.)					
	Number of observations	Dynamic height	Temperature	Relative humidity	Wind	
					Direction	Speed
SURFACE	31	5	-17.2	74	82	5.6
1,000--	31	122	-13.9	68	84	8.0
950----	31	511	-13.0	67	97	8.5
900----	31	923	-14.0	64	103	6.0
850----	31	1,356	-14.3	60	114	5.4
800----	31	1,815	-15.7	58	131	1.7
750----	31	2,294	-17.7	55	99	1.0
700----	31	2,813	-19.9	55	307	1.2
650----	31	3,356	-22.9	53	255	2.1
600----	31	3,942	-26.3	48	271	4.5
550----	31	4,561	-30.1	46	262	3.3
500----	31	5,238	-34.1	43	275	5.1
450----	31	5,964	-38.5		272	6.4
400----	31	6,771	-43.3		263	8.5
350----	31	7,660	-48.1		269	11.3
300----	31	8,666	-51.7		267	12.2
250----	31	9,848	-51.5		263	12.0
200----	31	11,304	-48.5		250	12.2
175----	31	12,183	-48.3		252	12.0
150----	31	13,197	-48.8		253	15.3
125----	31	14,394	-49.3		257	17.3
100----	31	15,852	-50.1		245	14.0
80-----	31	17,310	-50.1		262	17.7
70-----	31	18,182	-50.5		266	15.3
60-----	31	19,185	-50.9		262	17.3
50-----	31	20,370	-51.4		271	20.0
40-----	31	21,816	-52.4		270	20.6
30-----	30	23,674	-53.5		278	23.1
25-----	26	24,835	-53.9		284	24.5
20-----	24	26,271	-54.3		281	25.3
15-----	17	28,133	-54.8		271	29.1
10-----	5	30,861	-55.5			
7------						
5------						
4------						

Standard pressure surface (mb.)	KWAJALEIN, MARSHALL IS. (1011 MB.)					
	Number of observations	Dynamic height	Temperature	Relative humidity	Wind	
					Direction	Speed
SURFACE	30	4	27.0	76	66	16.9
1,000--	30	98	26.2	77	66	15.9
950----	30	547	22.4	82	68	21.8
900----	30	1,020	19.4	76	72	19.2
850----	30	1,512	16.7	77	79	16.9
800----	30	2,027	14.8	65	86	11.1
750----	30	2,572	12.8	47	88	9.3
700----	30	3,150	10.5	40	78	9.3
650----	30	3,759	7.2	34	70	8.4
600----	30	4,418	3.3	33	70	10.1
550----	30	5,112	- .7	31	66	9.7
500----	30	5,874	- 5.2	31	65	11.5
450----	30	6,690	-10.4	28	51	10.5
400----	30	7,592	-16.5	27	47	8.4
350----	30	8,583	-23.4	32	37	4.1
300----	30	9,693	-31.5	31	304	1.6
250----	30	10,957	-41.5		268	7.4
200----	30	12,432	-53.7		267	9.1
175----	30	13,277	-60.5		282	10.9
150----	30	14,220	-67.8		293	12.0
125----	28	15,298	-74.8		299	8.4
100----	24	16,577	-80.5		353	4.7
80-----	17	17,840	-78.7		315	3.3
70-----	17	18,607	-75.0		285	7.4
60-----	17	19,512	-69.8		273	15.7
50-----	17	20,607	-66.6		272	18.3
40-----	17	21,975	-61.0		264	13.6
30-----	17	23,779	-57.1		146	.8
25-----	17	24,939	-54.5		85	12.2
20-----	17	26,377	-51.6		84	30.9
15-----	16	28,268	-46.1		88	44.7
10-----	15	30,994	-40.3		88	54.2
7------	12	33,441	-37.9			
5------	9	35,747	-35.9			
4------	7	37,312	-33.6			

Standard pressure surface (mb.)	LAKE CHARLES, LA. (1016 MB.)					
	Number of observations	Dynamic height	Temperature	Relative humidity	Wind	
					Direction	Speed
SURFACE	31	5	9.4	89	55	2.9
1,000--	31	135	11.7	73	82	2.9
950----	31	563	10.9	61	231	1.4
900----	31	1,016	9.9	53	327	1.4
850----	31	1,491	8.2	43	271	8.0
800----	31	1,989	6.1	40	276	12.0
750----	31	2,519	3.9	41	278	16.9
700----	31	3,076	1.9	34	269	21.0
650----	31	3,670	- 1.0		270	28.2
600----	31	4,306	- 5.0		271	35.8
550----	31	4,979	- 9.9		268	39.4
500----	31	5,713	-15.1		266	45.3
450----	31	6,496	-20.5		265	52.5
400----	31	7,365	-26.4		265	59.7
350----	31	8,317	-32.9		266	73.3
300----	31	9,383	-40.8		265	80.2
250----	31	10,600	-49.4		266	89.0
200----	28	12,038	-57.3		269	87.8
175----	28	12,877	-60.3		263	86.5
150----	27	13,832	-63.0		264	75.4
125----	26	14,944	-65.3		265	67.0
100----	25	16,289	-68.4		262	57.3
80-----	24	17,628	-69.4		261	44.9
70-----	24	18,443	-68.6		262	32.4
60-----	24	19,359	-64.8		263	21.8
50-----	24	20,486	-60.2		258	12.2
40-----	24	21,889	-57.0		259	9.3
30-----	24	23,726	-53.8		274	6.8
25-----	24	24,904	-50.9		262	10.7
20-----	24	26,367	-47.9		261	12.8
15-----	12	28,258	-44.4			
10-----						
7------						
5------						
4------						

See reference note at end of table

RAWINSONDE DATA

Average monthly values

MARCH 1962

Standard pressure surface (mb.)	LANDER, WYO. (824 MB.)					
	Number of observations	Dynamic height	Temperature	Relative humidity	Wind	
					Direction	Speed
SURFACE	31	1,696	- 4.3	57	251	3.9
1,000	31	140				
950	31	547				
900	31	985				
850	31	1,449				
800	31	1,930	- 2.7	48	241	3.3
750	31	2,438	- 5.5	48	265	5.2
700	31	2,978	- 8.9	50	270	8.9
650	31	3,543	-12.4	49	280	13.2
600	31	4,156	-16.3	45	284	17.3
550	31	4,800	-20.6	42	291	20.8
500	31	5,505	-25.5	39	296	21.0
450	31	6,257	-30.9	38	293	21.4
400	31	7,087	-37.4		292	21.0
350	31	7,996	-44.2		293	22.2
300	31	9,014	-51.5		294	26.0
250	31	10,178	-58.1		291	31.7
200	31	11,580	-58.0		284	35.9
175	31	12,425	-56.3		280	37.1
150	31	13,409	-55.1		277	34.8
125	31	14,572	-56.3		274	31.1
100	31	15,986	-56.7		275	28.4
80	31	17,396	-57.4		278	23.3
70	31	18,244	-57.3		277	21.8
60	31	19,213	-57.7		280	19.4
50	31	20,365	-57.3		285	20.2
40	30	21,766	-57.5		290	17.3
30	25	23,595	-56.6		290	15.9
25	20	24,726	-55.4		284	18.3
20	16	26,148	-54.0		283	17.1
15	5	27,869	-54.0			
10						
7						
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Standard pressure surface (mb.)	LAS VEGAS, NEV. (938 MB.)					
	Number of observations	Dynamic height	Temperature	Relative humidity	Wind	
					Direction	Speed
SURFACE	31	660	5.9	40	263	2.7
1,000	31	134				
950	31	555				
900	31	1,004	8.1	31	315	2.1
850	31	1,473	5.0	32	326	3.7
800	31	1,965	1.5	35	303	4.9
750	31	2,478	- 2.2	37	278	5.1
700	31	3,026	- 5.5	38	275	7.2
650	31	3,597	- 9.1	39	283	9.9
600	31	4,219	-13.3	38	282	13.4
550	31	4,870	-17.8	35	278	18.5
500	31	5,582	-23.0	33	277	22.2
450	31	6,338	-28.4		274	27.0
400	31	7,181	-34.1		275	32.4
350	31	8,102	-40.8		272	40.4
300	31	9,135	-47.5		268	49.0
250	31	10,321	-54.3		268	55.6
200	31	11,737	-57.6		268	61.8
175	31	12,580	-57.4		266	59.5
150	31	13,554	-57.5		269	54.6
125	31	14,702	-58.6		266	47.4
100	31	16,097	-60.6		269	38.1
80	29	17,481	-61.7		270	28.0
70	29	18,312	-61.2		270	22.9
60	29	19,267	-60.1		272	16.5
50	27	20,410	-58.5		278	12.6
40	27	21,813	-57.8		294	8.5
30	24	23,643	-55.8		285	7.0
25	20	24,820	-54.6		275	10.5
20	9	26,277	-53.1			
15						
10						
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Standard pressure surface (mb.)	LIHUE, HAWAII (1014 MB.)					
	Number of observations	Dynamic height	Temperature	Relative humidity	Wind	
					Direction	Speed
SURFACE	31	36	19.6	77	54	6.2
1,000	31	154	20.2	76	53	8.9
950	31	593	16.8	80	70	10.7
900	31	1,054	13.3	84	78	9.1
850	31	1,533	10.1	81	90	6.4
800	31	2,036	8.1	68	107	4.3
750	31	2,567	5.9	51	140	2.1
700	31	3,130	3.2		193	1.7
650	31	3,727	.3		230	3.1
600	31	4,366	- 2.9		226	4.1
550	31	5,042	- 7.7		236	5.6
500	31	5,784	-12.9		261	8.5
450	31	6,573	-18.3		258	13.2
400	31	7,449	-24.7		268	18.7
350	31	8,407	-31.8		264	21.0
300	31	9,479	-39.6		272	28.8
250	31	10,702	-48.6		270	39.4
200	30	12,142	-56.5		272	53.0
175	29	12,984	-59.6		273	54.6
150	29	13,938	-63.9		273	50.9
125	29	15,045	-68.0		276	42.4
100	28	16,374	-71.6		275	31.5
80	27	17,688	-72.7		266	17.7
70	27	18,474	-70.6		266	11.9
60	26	19,396	-66.7		246	7.2
50	26	20,508	-63.5		244	3.7
40	26	21,895	-58.7		118	1.0
30	25	23,718	-55.0		65	1.9
25	25	24,891	-52.6		55	1.2
20	25	26,343	-49.6		316	1.9
15	21	28,246	-46.8		13	1.7
10	19	30,972	-42.4		96	8.2
7	11	33,423	-39.2			
5	8	35,782	-35.4			

Standard pressure surface (mb.)	LITTLE ROCK, ARK. (1007 MB.)					
	Number of observations	Dynamic height	Temperature	Relative humidity	Wind	
					Direction	Speed
SURFACE	31	79	5.2	74	343	2.3
1,000	31	137			358	2.3
950	31	555	4.8	63	273	3.9
900	31	997	4.3	59	274	8.7
850	31	1,463	3.5	54	278	13.4
800	31	1,954	1.7	51	278	17.1
750	31	2,471	- .9	47	275	20.6
700	31	3,021	- 3.6	42	275	23.1
650	31	3,596	- 7.1	37	270	27.4
600	31	4,224	-10.7		272	33.6
550	31	4,881	-14.8		269	41.0
500	31	5,604	-19.6		267	47.0
450	31	6,370	-25.1		267	53.8
400	31	7,225	-31.3		267	54.0
350	31	8,157	-38.0		268	59.1
300	31	9,202	-45.4		274	70.5
250	31	10,400	-52.2		279	75.6
200	31	11,828	-56.2		283	78.1
175	31	12,674	-57.0		282	69.8
150	31	13,646	-59.1		280	59.3
125	30	14,784	-61.7			
100	30	16,162	-63.2			
80	29	17,532	-63.9			
70	27	18,363	-63.3			
60	26	19,312	-61.4			
50	26	20,452	-58.8			
40	25	21,865	-56.8			
30	25	23,697	-55.2			
25	23	24,860	-53.8			
20	23	26,302	-51.3			
15	15	28,179	-47.3			
10						
7						
5						

Standard pressure surface (mb.)	McGRATH, ALASKA (1001 MB.)					
	Number of observations	Dynamic height	Temperature	Relative humidity	Wind	
					Direction	Speed
SURFACE	31	103	-13.9	66	195	0.6
1,000	31	113			223	1.4
950	31	512	-10.6	59	90	3.9
900	31	922	-11.7	58	117	5.2
850	31	1,359	-13.1	57	139	2.7
800	31	1,820	-14.4	53	169	2.3
750	31	2,308	-16.4	53	223	2.9
700	31	2,824	-19.2	52	244	4.5
650	31	3,372	-22.4	48	245	6.6
600	31	3,955	-25.6	45	235	8.5
550	31	4,581	-29.0	42	250	10.5
500	31	5,258	-33.0		252	13.4
450	31	5,990	-37.6		258	14.8
400	31	6,799	-41.9		256	19.8
350	31	7,693	-46.7		266	22.0
300	31	8,706	-50.1		268	22.7
250	30	9,896	-50.7		273	22.0
200	30	11,354	-49.3		271	19.6
175	30	12,231	-48.4		268	19.4
150	30	13,245	-48.8		274	16.5
125	30	14,440	-49.7		275	15.0
100	30	15,898	-50.3		271	13.6
80	28	17,350	-50.6		277	13.2
70	27	18,221	-50.9		276	14.4
60	27	19,217	-51.4		288	13.6
50	27	20,400	-52.0		290	13.4
40	27	21,843	-52.7		299	12.6
30	22	23,686	-53.4		294	14.4
25	16	24,850	-54.0		300	19.6
20	11	26,241	-54.9			
15						
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Standard pressure surface (mb.)	MAJURO, MARSHALL IS. (1010 MB.)					
	Number of observations	Dynamic height	Temperature	Relative humidity	Wind	
					Direction	Speed
SURFACE	31	3	26.7	83	66	10.7
1,000	31	94	26.0	83	65	13.6
950	31	541	23.1	83	69	19.8
900	31	1,017	20.1	81	76	20.6
850	31	1,510	17.1	81	83	19.4
800	31	2,027	14.7	77	84	17.1
750	31	2,572	12.4	63	80	14.6
700	31	3,149	9.8	50	83	11.7
650	31	3,760	6.1	48	81	9.1
600	31	4,414	2.6	45	82	7.4
550	31	5,108	- 1.3	45	77	8.9
500	31	5,868	- 5.4	39	67	10.7
450	31	6,686	-10.4		55	10.5
400	31	7,585	-16.2		52	5.8
350	31	8,578	-22.8		62	1.7
300	31	9,689	-31.0		228	5.2
250	31	10,955	-41.2		234	8.4
200	31	12,433	-53.4		255	9.9
175	30	13,279	-60.2		281	9.3
150	30	14,224	-67.5		287	12.2
125	30	15,300	-75.3		287	13.2
100	30	16,570	-81.4		317	7.0
80	28	17,819	-80.1		287	4.5
70	28	18,582	-75.9		271	13.8
60	27	19,485	-69.9		274	22.5
50	25	20,585	-65.9		268	23.5
40	23	21,956	-61.6		268	20.2
30	23	23,759	-56.9		261	5.1
25	23	24,921	-54.2		86	7.4
20	23	26,359	-51.8		66	32.3
15	21	28,249	-45.9		87	53.4
10	15	30,983	-40.3		91	61.4
7	12	33,442	-37.4		89	65.9
5	5	35,762	-33.6			

Standard pressure surface (mb.)	MEDFORD, OREG. (969 MB.)					
	Number of observations	Dynamic height	Temperature	Relative humidity	Wind	
					Direction	Speed
SURFACE	31	401	2.9	83	197	1.2
1,000	31	145				
950	31	565	4.2	73	251	2.1
900	31	1,003	2.7	70	205	4.1
850	31	1,463	.3	70	214	6.8
800	31	1,947	- 2.7	68	233	9.3
750	31	2,454	- 5.5	63	248	11.7
700	31	2,995	- 8.7	58	260	14.8
650	31	3,561	-11.8	58	267	14.4
600	31	4,174	-15.7	55	270	16.1
550	31	4,819	-20.0	53	279	15.9
500	31	5,525	-24.7	49	280	18.7
450	31	6,275	-30.3	45	279	18.8
400	31	7,111	-36.3	46	287	19.4
350	31	8,025	-43.0		297	21.8
300	31	9,049	-50.4		293	21.4
250	31	10,221	-56.9		304	17.1
200	31	11,624	-59.1		301	20.4
175	31	12,466	-57.2		286	21.0
150	31	13,444	-56.3		283	21.2
125	28	14,597	-57.3		289	18.8
100	27	16,018	-57.7		296	16.5
80	27	17,427	-57.8		298	13.4
70	26	18,272	-57.4		297	10.9
60	25	19,243	-57.1		306	9.7
50	25	20,396	-56.9		313	8.9
40	25	21,809	-56.9		317	8.0
30	24	23,638	-56.7		341	7.6
25	23	24,798	-56.0		348	7.8
20	22	26,231	-55.3		346	7.2
15	22	28,075	-53.3		319	6.4
10	18	30,715	-50.4		312	14.2
7	13	33,062	-47.2		291	20.8
5	10	35,328	-42.5			

Standard pressure surface (mb.)	MERIDA, MEXICO (1012 MB.)					
	Number of observations	Dynamic height	Temperature	Relative humidity	Wind	
					Direction	Speed
SURFACE	31	11	18.9	91	103	4.3
1,000	31	116	20.9	85	101	6.8
950	31	557	19.6	78	126	10.1
900	31	1,027	18.7	64	149	6.4
850	31	1,517	16.9	55	202	4.1
800	31	2,033	14.6	44	238	5.2
750	31	2,569	12.1	39	266	7.0
700	31	3,153	9.0	34	275	8.5
650	31	3,752	5.1	30	278	10.9
600	31	4,413	1.7		280	13.4
550	31	5,096	- 2.7		278	16.9
500	31	5,858	- 7.7		273	19.4
450	31	6,656	-13.2		273	21.8
400	31	7,559	-19.5		266	26.4
350	31	8,536	-26.5		265	31.5
300	31	9,631	-35.1		268	36.1
250	31	10,876	-45.0		272	43.3
200	29	12,336	-55.6		266	40.2
175	29	13,176	-61.6		263	41.8
150	29	14,121	-66.2		263	39.1
125	29	15,212	-71.0		264	39.6
100	29	16,520	-75.3		264	27.2
80	28	17,803	-77.2		269	18.1
70	28	18,574	-75.9		257	13.6
60	28	19,471	-70.9		263	11.1
50	28	20,572	-63.0		252	6.2
40	28	21,961	-58.0		21	.8
30	24	23,801	-52.9		74	10.3
25	21	24,989	-49.9		77	11.3
20	19	26,457	-46.8		90	15.0
15	5	28,353	-45.2			
10						
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5						

Standard pressure surface (mb.)	MIAMI, FLA. (1014 MB.)					
	Number of observations	Dynamic height	Temperature	Relative humidity	Wind	
					Direction	Speed
SURFACE	31	4	17.6	82	291	0.6
1,000	31	127	18.3	76	194	1.0
950	31	566	16.2	74	213	3.1
900	31	1,026	13.6	69	236	6.4
850	31	1,506	11.3	58	256	8.7
800	31	2,012	10.5	33	265	16.9
750	31	2,547	8.7		271	21.4
700	31	3,116	5.4		276	23.9
650	31	3,714	1.7		273	27.8
600	31	4,359	- 2.1		273	30.9
550	31	5,039	- 6.3		271	37.5
500	31	5,785	-11.4		272	42.7
450	31	6,580	-17.0		276	48.2
400	31	7,461	-23.0		275	54.8
350	31	8,432	-29.8		276	59.7
300	31	9,505	-38.2		277	67.2
250	31	10,734	-47.6		279	75.6
200	30	12,173	-57.1		277	80.2
175	30	13,009	-61.4		276	78.9
150	30	13,958	-64.4		273	70.5
125	30	15,062	-68.5		271	59.1
100	30	16,385	-72.8		273	49.7
80	30	17,686	-74.2		271	33.2
70	30	18,482	-72.2		272	23.5
60	30	19,383	-67.5		269	14.2
50	28	20,498	-61.5		280	5.6
40	26	21,898	-57.1		84	4.5
30	25	23,732	-53.3		87	5.8
25	23	24,915	-50.9		83	7.6
20	22	26,377	-48.0		85	8.9
15	19	28,294	-43.0		92	5.2
10	13	31,077	-35.9		250	6.8
7	9	33,573	-31.9			
5						

Standard pressure surface (mb.)	MIDLAND, TEXAS (915 MB.)					
	Number of observations	Dynamic height	Temperature	Relative humidity	Wind	
					Direction	Speed
SURFACE	30	874	4.8	54	211	2.7
1,000	30	137				
950	30	557				
900	30	1,006	7.3	43	203	6.6
850	30	1,477	6.9	36	260	10.5
800	30	1,974	5.3	31	278	16.9
750	30	2,498	2.3	33	268	20.6
700	30	3,052	- 1.3	33	263	23.7
650	30	3,634	- 5.3	34	263	27.0
600	30	4,262	- 9.3	32	263	33.2
550	30	4,924	-13.7		264	37.1
500	30	5,648	-18.5		263	42.7
450	30	6,421	-23.6		265	49.5
400	30	7,277	-29.7		262	58.5
350	30	8,217	-36.0		261	70.9
300	30	9,272	-43.0		261	81.0
250	29	10,477	-50.8		261	91.7
200	29	11,910	-56.5		266	96.4
175	29	12,754	-58.5		269	92.7
150	28	13,717	-60.3		262	79.3
125	26	14,849	-63.3		262	75.0
100	24	16,214	-66.9		267	58.9
80	24	17,559	-66.8		264	35.0
70	24	18,375	-66.1		270	24.5
60	23	19,306	-65.1		266	15.3
50	22	20,425	-60.6		262	11.3
40	21	21,826	-58.7		264	5.8
30	20	23,649	-55.9		277	4.7
25	19	24,814	-53.8		272	5.8
20	18	26,249	-52.2		268	11.5
15	18	28,126	-48.0		275	17.3
10	17	30,851	-41.0		267	35.0
7	14	33,314	-36.5		257	43.9
5	12	35,636	-34.2			

Standard pressure surface (mb.)	MONTGOMERY, ALA. (1010 MB.)					
	Number of observations	Dynamic height	Temperature	Relative humidity	Wind	
					Direction	Speed
SURFACE	31	61	7.9	80	349	1.2
1,000	31	139	8.5	72	2	2.3
950	31	562	8.3	62	318	4.1
900	31	1,011	7.6	55	284	9.9
850	31	1,481	5.8	49	276	14.2
800	31	1,975	3.4	45	279	17.1
750	31	2,495	1.5	42	280	21.4
700	31	3,050	- 1.0	39	276	26.8
650	31	3,634	- 3.9	35	272	33.0
600	31	4,266	- 7.4	32	270	39.4
550	31	4,933	-11.9		268	44.9
500	31	5,663	-16.7		269	49.7
450	31	6,437	-22.0		269	56.5
400	31	7,304	-28.0		267	62.4
350	31	8,250	-34.6		270	77.9
300	31	9,310	-42.2		270	84.3
250	31	10,512	-50.4		271	94.6
200	31	11,955	-56.3		274	100.6
175	31	12,800	-58.2		272	95.0
150	31	13,763	-60.9		269	87.4
125	30	14,890	-63.9		269	69.9
100	30	16,248	-66.3		269	58.5
80	30	17,594	-67.3		268	46.6
70	30	18,410	-65.6		272	35.2
60	27	19,340	-63.2		272	22.9
50	27	20,470	-59.7		272	18.3
40	27	21,872	-57.5		266	12.0
30	27	23,703	-54.1		267	18.5
25	26	24,880	-52.0		267	23.9
20	26	26,332	-49.7		263	24.5
15	22	28,229	-46.0		272	26.8
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Standard pressure surface (mb.)	NANTUCKET, MASS. (1012 MB.)					
	Number of observations	Dynamic height	Temperature	Relative humidity	Wind	
					Direction	Speed
SURFACE	31	14	0.9	79	346	6.8
1,000	31	108	1.4	74	351	8.4
950	31	517	- .2	67	349	13.4
900	31	951	- 1.7	63	358	11.9
850	31	1,405	- 3.4	59	354	11.1
800	31	1,883	- 5.2	52	342	11.5
750	31	2,386	- 7.1	48	328	13.0
700	31	2,924	- 9.4	45	319	15.2
650	31	3,489	-12.5	47	310	18.5
600	31	4,101	-16.1	45	305	20.2
550	31	4,744	-20.2	39	300	22.5
500	31	5,451	-24.9	40	295	24.7
450	31	6,202	-29.7	39	290	27.4
400	31	7,039	-35.6		291	30.7
350	31	7,956	-42.3		288	33.4
300	31	8,982	-49.2		286	34.6
250	31	10,161	-54.4		286	42.0
200	31	11,584	-55.3		282	41.4
175	30	12,438	-54.3		282	41.2
150	30	13,428	-53.8		280	43.1
125	28	14,598	-55.4		276	40.8
100	28	16,019	-56.5		276	38.7
80	28	17,431	-57.0		271	33.8
70	28	18,277	-56.2		271	30.3
60	28	19,259	-55.7		267	27.4
50	27	20,430	-54.7		254	23.1
40	27	21,861	-54.0		252	22.2
30	27	23,712	-52.6		240	20.8
25	26	24,890	-51.1		241	20.2
20	25	26,353	-49.5		240	25.1
15	23	28,248	-45.2		242	27.8
10	21	30,995	-39.2		248	33.0
7	16	33,484	-33.5		255	42.7
5	7	35,847	-31.2			

Standard pressure surface (mb.)	NASHVILLE, TENN. (995 MB.)					
	Number of observations	Dynamic height	Temperature	Relative humidity	Wind	
					Direction	Speed
SURFACE	31	177	4.2	83	308	1.4
1,000	31	132				
950	31	549	4.0	69	271	5.1
900	31	989	2.5	70	265	9.3
850	31	1,450	1.0	65	270	13.6
800	31	1,936	- 1.1	57	276	16.3
750	31	2,450	- 2.9	44	281	18.1
700	31	2,994	- 5.3	41	281	21.6
650	31	3,572	- 8.5	35	277	25.3
600	31	4,188	-12.6	33	279	29.3
550	31	4,845	-16.7		272	35.9
500	31	5,558	-21.5		273	39.6
450	31	6,324	-26.5		274	46.0
400	31	7,169	-32.3		274	53.4
350	31	8,098	-38.9		276	60.0
300	31	9,140	-45.8		273	66.5
250	31	10,336	-52.7		279	67.8
200	30	11,765	-56.9		279	76.7
175	30	12,610	-57.4		275	72.9
150	29	13,579	-58.4		274	70.3
125	28	14,719	-60.4		274	62.0
100	28	16,104	-62.2		272	47.8
80	28	17,480	-62.7		274	34.0
70	28	18,313	-61.9		273	28.4
60	27	19,264	-60.5		275	23.9
50	27	20,404	-58.9		270	15.7
40	27	21,811	-57.7		260	13.6
30	27	23,634	-55.4		270	10.3
25	27	24,802	-53.5		270	11.3
20	26	26,251	-51.3		255	17.7
15	23	28,138	-47.7		268	29.1
10	23	30,858	-40.6		265	40.8
7	20	33,333	-35.6		264	55.4
5	17	35,689	-32.7			

Standard pressure surface (mb.)	N. Y. INT. AP, IDLEWILD (1016 MB.)					
	Number of observations	Dynamic height	Temperature	Relative humidity	Wind	
					Direction	Speed
SURFACE	31	5	1.6	63	343	8.0
1,000	31	132	1.2	61	338	8.5
950	31	542	- .4	60	354	10.7
900	31	975	- 1.7	54	2	10.9
850	31	1,429	- 3.3	52	349	8.5
800	31	1,907	- 5.0	47	323	9.9
750	31	2,414	- 6.8	44	313	10.7
700	31	2,949	- 9.5	42	303	11.3
650	31	3,515	-12.5	39	303	15.0
600	31	4,125	-16.3	35	300	19.6
550	31	4,771	-20.3		293	23.7
500	31	5,473	-24.9		289	27.8
450	31	6,225	-30.0		289	34.8
400	31	7,060	-35.9		286	42.4
350	31	7,975	-42.7		285	46.0
300	31	8,999	-49.8		281	54.4
250	31	10,177	-55.1		279	56.5
200	31	11,596	-56.1		279	58.9
175	31	12,447	-55.2		277	57.1
150	31	13,431	-55.2		275	54.0
125	31	14,593	-56.1		275	49.2
100	31	16,005	-57.8		275	44.1
80	31	17,411	-58.4		273	36.7
70	31	18,263	-57.4		272	33.6
60	31	19,228	-56.8		270	29.1
50	31	20,385	-56.6		268	25.1
40	30	21,808	-54.9		267	23.5
30	29	23,649	-53.4		261	23.9
25	25	24,834	-52.5		249	22.7
20	25	26,283	-50.4		252	26.4
15	20	28,186	-47.7		258	31.5
10						
7						
5						

Standard pressure surface (mb.)	NOME, ALASKA (1014 MB.)					
	Number of observations	Dynamic height	Temperature	Relative humidity	Wind	
					Direction	Speed
SURFACE	30	7	-11.5	78	58	5.6
1,000	30	110	- 9.0	68	78	5.1
950	30	505	-10.1	66	112	7.2
900	30	922	-11.3	61	121	4.1
850	30	1,359	-12.4	60	113	2.1
800	30	1,821	-13.8	56	130	1.6
750	30	2,308	-16.2	51	167	1.9
700	30	2,827	-18.8	48	230	2.5
650	30	3,370	-21.8	44	251	4.3
600	30	3,961	-25.4	41	255	4.9
550	30	4,583	-29.5	38	261	6.4
500	30	5,262	-33.6		261	5.4
450	30	5,990	-38.0		273	9.1
400	30	6,799	-42.4		278	12.0
350	30	7,693	-46.6		274	16.7
300	30	8,707	-50.1		273	20.2
250	30	9,893	-51.1		268	19.6
200	30	11,350	-48.9		259	16.7
175	30	12,228	-48.6		261	15.3
150	30	13,242	-48.6		250	15.2
125	30	14,439	-49.4		251	12.8
100	30	15,900	-49.6		248	12.4
80	30	17,361	-49.9		259	12.6
70	30	18,238	-50.0		258	11.7
60	30	19,242	-50.5		265	10.3
50	30	20,431	-51.0		264	12.4
40	29	21,886	-51.8		278	11.7
30	28	23,748	-53.1		282	13.0
25	26	24,915	-53.4		287	13.6
20	25	26,358	-53.9		284	12.2
15	17	28,215	-54.2		293	7.8
10						
7						
5						

See reference note at end of table

RAWINSONDE DATA

Average monthly values

MARCH 1962

NORFOLK, VA.
(1015 MB.)

Standard pressure surface (mb)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind	
					Direction	Speed
SURFACE	31	9	4.2	75	5	4.7
1,000	31	129	4.9	66	358	6.0
950	31	543	3.3	60	338	8.5
900	31	984	1.4	57	326	9.1
850	31	1,443	- .3	56	311	11.1
800	31	1,927	- 2.2	52	301	12.8
750	31	2,432	- 4.0	46	284	15.7
700	31	2,981	- 6.4	44	281	20.0
650	31	3,548	- 9.4	41	277	24.3
600	31	4,172	-12.8	41	280	33.4
550	31	4,825	-16.9	38	276	36.7
500	31	5,540	-21.7		276	40.8
450	31	6,302	-27.0	33	275	45.9
400	31	7,147	-33.3	35	276	53.6
350	31	8,074	-39.4		276	64.5
300	31	9,114	-46.4		277	67.6
250	31	10,306	-53.6		274	76.6
200	31	11,731	-56.3		280	80.4
175	31	12,582	-55.6		278	74.6
150	30	13,558	-56.8		278	68.2
125	30	14,709	-58.5		275	60.2
100	30	16,106	-60.3		275	46.6
80	29	17,495	-61.1		274	37.1
70	29	18,327	-60.3		273	29.7
60	29	19,291	-58.9		273	24.5
50	29	20,440	-57.0		275	17.3
40	28	21,863	-55.3		263	13.2
30	28	23,705	-53.4		253	13.2
25	28	24,882	-51.5		252	15.2
20	25	26,339	-48.7		245	15.3
15	20	28,266	-44.0		250	27.2
10	8	31,041	-36.6			
7						
5						

NORTH PLATTE, NEBR.
(915 MB.)

Standard pressure surface (mb)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind	
					Direction	Speed
SURFACE	31	848	- 4.9	82	339	3.1
1,000	31	141				
950	31	547				
900	31	980	- 3.4	73	299	3.9
850	31	1,431	- 2.0	60	299	7.8
800	31	1,913	- 2.8	54	308	10.3
750	31	2,418	- 5.1	51	312	12.6
700	31	2,961	- 8.3	48	312	14.8
650	31	3,530	-12.0	48	308	16.9
600	31	4,140	-16.2	44	299	19.6
550	31	4,787	-20.6	43	293	19.8
500	31	5,488	-25.7	41	286	22.2
450	31	6,237	-31.1	38	280	24.3
400	31	7,069	-37.4		276	25.8
350	31	7,977	-44.4		270	29.0
300	31	8,992	-51.8		274	32.3
250	30	10,168	-56.6		276	40.0
200	30	11,580	-56.4		279	46.6
175	30	12,428	-55.9		272	45.1
150	29	13,409	-55.8		272	45.3
125	29	14,568	-56.5		272	41.6
100	29	15,979	-57.8		276	34.6
80	29	17,381	-58.9		280	24.3
70	27	18,219	-59.0		278	24.9
60	26	19,189	-58.3		283	22.9
50	26	20,337	-58.1		285	18.7
40	25	21,756	-57.3		286	17.5
30	25	23,582	-55.9		306	15.7
25	25	24,745	-55.2		285	18.7
20	25	26,176	-53.6		287	20.8
15	24	28,034	-50.8		284	26.6
10	24	30,705	-45.8		267	35.9
7	21	33,123	-39.5		263	48.8
5	15	35,483	-34.6			

OAKLAND, CALIF.
(1017 MB.)

Standard pressure surface (mb)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind	
					Direction	Speed
SURFACE	31	6	8.3	80	178	1.9
1,000	31	145	8.5	78	212	2.7
950	31	564	6.2	75	235	4.7
900	31	1,010	4.8	62	253	6.2
850	31	1,475	2.5	59	263	7.0
800	31	1,963	.2	53	267	7.8
750	31	2,475	- 2.5	47	275	9.9
700	31	3,023	- 5.7	41	273	14.0
650	31	3,595	- 9.5	37	282	15.0
600	31	4,213	-13.5		291	17.1
550	31	4,864	-18.1	34	286	20.8
500	31	5,575	-23.1		286	20.0
450	31	6,329	-29.0		291	22.5
400	31	7,170	-35.4		294	25.1
350	31	8,088	-42.3		294	30.7
300	31	9,116	-49.0		293	34.2
250	31	10,296	-55.6		284	29.7
200	31	11,706	-58.7		276	36.9
175	30	12,545	-56.7		277	36.5
150	28	13,531	-56.9		274	34.6
125	27	14,683	-58.0		279	31.7
100	26	16,084	-59.4		279	26.2
80	26	17,478	-60.0		281	20.0
70	26	18,313	-59.5		287	17.3
60	26	19,276	-59.1		292	12.8
50	26	20,421	-58.1		300	9.9
40	26	21,829	-57.5		331	8.2
30	26	23,646	-56.9		339	8.0
25	25	24,805	-55.6		319	5.8
20	24	26,231	-54.8		317	7.2
15	22	28,080	-52.5		304	10.5
10	18	30,737	-48.1		287	16.9
7	11	33,146	-44.7		277	35.6
5	7	35,382	-40.5			

OKLAHOMA CITY, OKLA.
(969 MB.)

Standard pressure surface (mb)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind	
					Direction	Speed
SURFACE	31	392	3.6	74	215	1.6
1,000	31	135				
950	31	554	5.0	63	216	4.1
900	31	995	4.7	54	245	11.9
850	31	1,460	3.6	44	263	14.8
800	31	1,951	1.8	40	274	16.9
750	31	2,470	- .6	36	278	19.2
700	31	3,018	- 4.1	36	273	23.1
650	31	3,595	- 8.0	36	271	26.4
600	31	4,216	-12.1	34	272	29.5
550	31	4,873	-16.4	33	267	35.6
500	31	5,587	-21.0		264	42.4
450	31	6,351	-26.4		264	50.9
400	31	7,198	-32.6		264	58.7
350	31	8,125	-39.3		262	69.0
300	31	9,164	-46.5		261	77.7
250	31	10,356	-53.0		263	88.4
200	31	11,780	-56.5		267	92.5
175	31	12,626	-57.2		268	88.8
150	31	13,597	-58.5		267	81.0
125	30	14,737	-60.5		268	69.2
100	29	16,123	-62.3		269	51.5
80	25	17,511	-62.6		269	37.9
70	25	18,344	-61.9		270	29.1
60	25	19,292	-60.8		269	21.8
50	23	20,434	-58.4		263	14.4
40	23	21,843	-57.0		261	14.8
30	22	23,677	-55.2		265	12.4
25	22	24,845	-53.9		261	13.6
20	21	26,282	-51.6		263	15.7
15	20	28,173	-47.1		266	26.6
10	11	30,921	-41.3			
7						
5						

OMAHA, NEBR.
(967 MB.)

Standard pressure surface (mb)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind	
					Direction	Speed
SURFACE	31	403	- 4.4	87	25	1.2
1,000	31	138				
950	31	545	- 3.1	77	283	1.0
900	31	974	- 1.9	64	281	5.2
850	31	1,429	- 2.5	59	301	7.8
800	31	1,909	- 4.0	56	305	8.5
750	31	2,415	- 6.4	53	295	10.3
700	31	2,953	- 9.1	50	296	13.0
650	31	3,519	-12.5	48	294	15.2
600	31	4,131	-16.4	47	288	17.5
550	31	4,774	-20.7	47	289	20.4
500	31	5,478	-25.6	43	283	22.2
450	31	6,223	-31.3	41	276	25.5
400	31	7,058	-37.7		274	29.0
350	30	7,963	-44.6		273	30.7
300	29	8,979	-50.8		274	37.3
250	29	10,150	-56.2		272	44.7
200	28	11,568	-56.7		274	48.6
175	28	12,417	-55.5		273	50.5
150	28	13,398	-55.8		273	49.9
125	28	14,556	-56.7		272	45.3
100	27	15,960	-58.4		275	41.8
80	27	17,360	-59.3		275	36.3
70	26	18,205	-59.6		277	32.1
60	26	19,163	-59.5		280	29.1
50	26	20,305	-59.0		280	27.6
40	25	21,711	-57.6		283	25.6
30	22	23,539	-56.8		280	24.5
25	22	24,697	-55.6		279	27.2
20	20	26,122	-53.8		279	26.4
15	10	28,045	-53.0			
10						
7						
5						

PEORIA, ILL.
(993 MB.)

Standard pressure surface (mb)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind	
					Direction	Speed
SURFACE	31	200	- 2.0	81	17	2.5
1,000	31	138	- 8.6			
950	31	546	- 1.1	71	67	.8
900	31	978	- 2.4	69	294	3.1
850	31	1,432	- 2.5	56	301	6.2
800	31	1,913	- 3.8	48	294	9.3
750	31	2,419	- 6.0	44	281	11.3
700	31	2,958	- 8.9	45	277	13.2
650	31	3,525	-12.2	43	278	16.1
600	31	4,137	-16.0	45	275	19.4
550	31	4,785	-20.1	41	276	22.3
500	31	5,487	-25.0	38	274	25.6
450	31	6,239	-30.6	35	271	30.1
400	31	7,071	-36.7		269	33.2
350	31	7,982	-43.4		267	39.4
300	31	9,004	-50.1		268	44.7
250	31	10,179	-55.2		267	54.8
200	31	11,599	-55.4		271	57.3
175	31	12,452	-55.0		269	56.0
150	31	13,436	-55.5		270	53.6
125	30	14,600	-56.8		271	48.0
100	30	16,009	-57.8		271	42.0
80	30	17,411	-58.8		274	34.6
70	30	18,254	-59.0		271	31.3
60	29	19,215	-58.3		273	30.9
50	29	20,365	-57.2		276	24.9
40	29	21,777	-56.7		271	23.9
30	29	23,609	-54.9		267	27.6
25	28	24,786	-53.9		267	25.6
20	28	26,225	-51.7		265	24.7
15	27	28,105	-47.9		257	30.1
10	24	30,844	-40.1		256	38.1
7	14	33,310	-37.7		261	44.1
5						

PITTSBURGH, PA.
(974 MB.)

Standard pressure surface (mb)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind	
					Direction	Speed
SURFACE	31	353	- 0.8	74	16	1.4
1,000	31	144				
950	31	555	- .6	65	1	1.2
900	31	986	- 2.0	64	278	1.7
850	31	1,439	- 3.5	65	273	6.4
800	31	1,918	- 4.8	58	279	8.7
750	31	2,423	- 6.7	54	285	10.3
700	31	2,960	- 9.2	50	288	11.1
650	30	3,529	-12.4	44	283	15.0
600	30	4,140	-16.2	43	278	19.0
550	30	4,783	-20.6	43	277	22.9
500	30	5,488	-25.0	41	276	26.0
450	30	6,238	-30.4		273	31.9
400	30	7,072	-36.6		276	37.5
350	30	7,984	-43.3		284	41.2
300	29	8,998	-50.6		281	41.4
250	29	10,170	-56.5		285	50.3
200	29	11,583	-56.3		286	58.1
175	29	12,433	-55.4		284	55.6
150	28	13,419	-56.0		283	52.3
125	28	14,577	-56.8		282	47.4
100	28	15,986	-58.5		279	39.4
80	27	17,385	-58.3		276	32.4
70	27	18,229	-58.2		278	30.5
60	27	19,196	-57.8		275	27.0
50	27	20,347	-57.5		272	21.0
40	27	21,761	-56.3		276	19.8
30	27	23,594	-54.8		269	17.7
25	27	24,762	-53.8		261	18.3
20	27	26,201	-51.9		260	19.8
15	25	28,092	-47.4		250	23.9
10	23	30,811	-41.6		253	37.7
7	17	33,278	-37.2		257	49.0
5	14	35,613	-34.6			

POINT ARGUELLO, CALIF.
(1005 MB.)

Standard pressure surface (mb)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind	
					Direction	Speed
SURFACE	30	113	6.7	90	349	2.5
1,000	30	154	7.4	84	356	3.7
950	30	578	7.4	65	350	6.4
900	30	1,022	5.8	54	340	6.6
850	30	1,488	3.4	45	330	8.0
800	30	1,977	1.2	38	319	10.1
750	30	2,493	- 1.2	27	306	12.0
700	30	3,042	- 4.1	23	297	12.8
650	30	3,617	- 7.6	23	294	15.7
600	30	4,241	-11.8	27	287	19.8
550	30	4,896	-16.7	28	284	22.3
500	30	5,611	-21.5	30	284	26.4
450	30	6,373	-27.2	27	284	30.9
400	30	7,217	-33.3	23	283	35.6
350	30	8,142	-39.9	26	274	41.6
300	30	9,178	-47.2		274	45.1
250	30	10,364	-54.3		271	54.2
200	30	11,776	-58.0		267	61.0
175	30	12,617	-57.6		265	56.5
150	30	13,589	-58.3		268	55.6
125	29	14,729	-59.6		270	50.7
100	28	16,110	-62.0		268	38.7
80	27	17,491	-62.3		276	23.1
70	26	18,323	-61.8		274	25.3
60	25	19,275	-60.8		288	13.4
50	25	20,412	-59.5		282	12.6
40	22	21,820	-57.8		294	6.8
30	21	23,646	-56.7		283	4.7
25	20	24,807	-55.3		278	6.8
20	20	26,237	-53.4		275	8.7
15	19	28,105	-49.4		273	13.6
10	16	30,790	-41.9		265	33.2
7	9	33,237	-35.6			
5						

PONAPE, CAROLINE, IS.
(1005 MB.)

Standard pressure surface (mb)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind	
					Direction	Speed
SURFACE	31	39	26.3	82	57	7.8
1,000	31	81	26.1	82	60	9.3
950	31	524	22.6	84	74	18.1
900	31	1,003	19.6	85	78	21.6
850	31	1,495	17.1	81	83	18.8
800	31	2,013	15.1	70	84	16.1
750	31	2,553	12.3	64	86	12.2
700	31	3,135	9.1	61	91	11.9
650	31	3,742	6.1	54	91	14.8
600	31	4,400	2.5	46	85	15.7
550	31	5,092	- 1.1	41	84	18.7
500	31	5,855	- 5.4		81	19.2
450	31	6,668	-10.1		72	20.2
400	31	7,575	-15.8		68	18.3
350	31	8,568	-22.5		66	15.2
300	31	9,681	-30.7		71	9.9
250	31	10,949	-40.9		102	7.0
200	31	12,425	-53.2		126	4.3
175	31	13,271	-60.1		138	3.7
150	31	14,216	-67.5		44	.8
125	31	15,291	-75.4		27	8.5
100	30	16,561	-81.4		63	10.9
80	25	17,824	-79.7		60	6.0
70	23	18,586	-75.5		298	6.4
60	22	19,489	-70.7		271	14.6
50	22	20,582	-66.7		272	23.5
40	22	21,948	-61.8		269	21.0
30	21	23,749	-57.0		273	8.5
25	21	24,909	-55.1		61	6.4
20	16	26,340	-51.6		84	24.1
15	16	28,224	-47.7		90	44.5
10	12	30,938	-41.0			
7	5	33,341	-37.7			
5						

PORTLAND, ME.
(1012 MB.)

Standard pressure surface (mb)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind	
					Direction	Speed
SURFACE	31	20	- 2.6	81	332	6.0
1,000	31	115	- .8	68	339	8.7
950	31	522	- 1.6	60	357	14.2
900	31	954	- 3.6	58	5	12.4
850	31	1,404	- 5.5	54	5	13.0
800	31	1,879	- 7.3	52	360	14.8
750	31	2,375	- 9.2	49	349	14.0
700	31	2,911	-11.4	47	337	13.6
650	31	3,469	-14.2	43	327	15.3
600	31	4,080	-17.6	47	313	17.7
550	31	4,719	-21.8	48	310	19.4
500	31	5,422	-26.1	45	309	20.8
450	31	6,167	-31.5	43	307	21.0
400	31	7,002	-37.5	43	295	22.3
350	31	7,912	-43.9		291	26.0
300	31	8,932	-50.5		288	30.7
250	31	10,105	-55.6		283	37.9
200	31	11,523	-56.0		279	40.6
175	31	12,376	-54.4		278	37.3
150	31	13,364	-54.3		273	37.5
125	31	14,530	-54.9		274	37.1
100	31	15,953	-56.1		272	35.0
80	29	17,374	-56.4		269	30.5
70	29	18,227	-56.4		268	28.0
60	29	19,202	-55.5		264	26.8
50	27	20,367	-55.0		256	28.6
40	26	21,799	-54.2		254	27.2
30	25	23,642	-53.5		246	30.5
25	25	24,818	-52.6		244	32.1
20	23	26,264	-50.6		245	42.9
15	15	28,138	-45.3			
10						
7						
5						

RAPID CITY, S. DAK.
(902 MB.)

Standard pressure surface (mb)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind	
					Direction	Speed
SURFACE	31	966	- 5.6	83	348	4.9
1,000	31	147				
950	31	554				
900	31	982			350	5.1
850	31	1,434	- 1.7	55	312	10.7
800	31	1,916	- 3.2	50	311	12.6
750	31	2,419	- 6.3	49	306	14.0
700	31	2,959	- 9.8	50	298	14.4
650	31	3,522	-13.3	48	295	15.5
600	31	4,132	-17.4	46	296	16.1
550	31	4,775	-21.8	42	291	17.7
500	31	5,473	-26.7	41	292	20.4
450	31	6,219	-32.1	38	297	21.6
400	31	7,045	-38.6		297	24.1
350	31	7,948	-45.7		296	24.1
300	30	8,958	-52.8		295	27.6
250	30	10,119	-58.2		290	31.7
200	30	11,521	-57.7		283	36.3
175	30	12,367	-55.7		279	37.1
150	30	13,350	-55.4		279	35.6
125	30	14,510	-56.4		279	35.4
100	30	15,924	-57.2		280	31.7
80	29	17,337	-57.2		280	28.4
70	29	18,185	-57.6		280	26.2
60	28	19,161	-57.4		287	24.9
50	28	20,313	-57.5		287	20.4
40	26	21,736	-57.2		296	18.3
30	22	23,573	-56.4		307	16.1
25	14	24,754	-55.8		315	13.2
20	9	26,136	-54.7			
15						

ST. CLOUD, MINN.
(979 MB.)

Standard pressure surface (mb)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind	
					Direction	Speed
SURFACE	31	316	- 6.3	84	25	1.7
1,000	31	149				
950	31	552	- 4.8	78	118	1.7
900	31	978	- 5.3	76	179	2.5
850	31	1,426	- 5.7	67	250	2.3
800	31	1,900	- 6.6	61	270	4.9
750	31	2,400	- 8.5	58	275	6.4
700	31	2,935	-11.3	58	281	7.4
650	31	3,495	-14.5	55	284	7.8
600	31	4,103	-17.8	50	280	10.5
550	31	4,745	-22.2	47	282	12.6
500	31	5,442	-27.1	45	283	13.8
450	31	6,184	-32.9	44	278	15.3
400	31	7,010	-39.3		279	17.9
350	31	7,911	-46.6		275	20.0
300	31	8,916	-54.1		272	23.7
250	31	10,069	-59.4		276	26.0
200	31	11,468	-57.6		278	32.3
175	31	12,314	-56.3		279	32.6
150	31	13,294	-55.5		279	33.0
125	31	14,455	-56.1		279	33.2
100	31	15,869	-57.4		279	32.6
80	31	17,279	-57.8		280	31.3
70	31	18,121	-58.0		282	30.5
60	31	19,093	-58.1		282	28.0
50	30	20,252	-58.1		274	25.1
40	28	21,681	-57.3		283	25.3
30	27	23,516	-56.5		287	23.5
25	26	24,672	-56.5		278	24.1
20	22	26,110	-54.9		271	22.9
15	11	28,013	-52.7			

ST. PAUL IS., ALASKA
(1006 MB.)

Standard pressure surface (mb)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind	
					Direction	Speed
SURFACE	31	10	- 3.1	86	93	5.6
1,000	31	53			117	7.4
950	31	456	- 5.3	81	138	7.2
900	31	881	- 6.6	71	181	7.6
850	31	1,327	- 7.6	63	195	7.6
800	31	1,798	- 9.0	54	214	7.8
750	31	2,295	-11.1	49	223	10.1
700	31	2,823	-13.7	46	231	12.2
650	31	3,381	-16.8	47	236	15.7
600	31	3,981	-20.2	49	234	17.5
550	31	4,618	-24.0	49	241	16.3
500	31	5,310	-28.5	49	240	17.1
450	31	6,055	-33.5	47	238	18.7
400	31	6,875	-39.2		242	20.0
350	31	7,777	-45.4		235	15.7
300	31	8,792	-50.6		221	18.8
250	31	9,967	-54.3		218	17.7
200	31	11,404	-51.5		235	20.0
175	31	12,275	-49.9		237	16.3
150	31	13,284	-49.7		235	16.1
125	31	14,476	-50.0		232	14.2
100	31	15,932	-50.4		231	12.2
80	31	17,387	-50.7		234	10.5
70	31	18,258	-50.9		233	8.4
60	31	19,262	-51.1		234	6.8
50	31	20,447	-51.5		217	4.1
40	31	21,895	-52.2		248	2.5
30	30	23,756	-52.9		160	.8
25	28	24,926	-53.2		81	2.1
20	20	26,375	-53.3		93	4.9
15	6	28,303	-53.6			

SALEM, OREG.
(1008 MB.)

Standard pressure surface (mb)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind	
					Direction	Speed
SURFACE	31	61	3.6	89	189	4.3
1,000	31	128			195	4.3
950	31	542	3.7	75	217	4.5
900	31	984	1.5	72	229	6.4
850	31	1,443	- 1.1	68	242	10.3
800	31	1,924	- 3.7	65	247	11.3
750	31	2,427	- 6.2	61	254	13.4
700	31	2,969	- 9.1	59	255	12.8
650	31	3,535	-12.6	55	258	13.8
600	31	4,146	-16.2	52	261	14.4
550	31	4,791	-20.4	50	264	15.9
500	31	5,494	-25.4	51	264	17.7
450	31	6,245	-31.0	51	271	20.2
400	31	7,075	-37.0	51	281	22.2
350	31	7,986	-43.3		288	23.7
300	31	9,008	-50.3		296	25.6
250	31	10,179	-57.0		300	27.8
200	30	11,582	-59.1		295	27.6
175	30	12,424	-56.8		292	25.3
150	30	13,403	-56.2		289	24.9
125	30	14,561	-56.4		287	22.5
100	30	15,976	-57.0		294	20.4
80	30	17,389	-56.9		293	15.9
70	29	18,237	-56.3		303	14.8
60	28	19,220	-56.6		306	12.0
50	27	20,370	-56.3		313	9.9
40	26	21,789	-56.1		318	9.3
30	22	23,621	-56.4		323	9.9
25	19	24,788	-56.3		342	9.7
20	15	26,192	-56.1		338	9.3
15	5	28,072	-54.6			

SALT LAKE CITY, UTAH
(870 MB.)

Standard pressure surface (mb)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind	
					Direction	Speed
SURFACE	31	1,288	- 1.9	82	168	6.0
1,000	31	165				
950	31	579				
900	31	1,020				
850	31	1,475	1.1	58	184	6.4
800	31	1,961	- 1.3	53	202	6.6
750	31	2,470	- 4.8	57	249	7.8
700	31	3,012	- 8.7	57	272	10.7
650	31	3,582	-12.1	53	277	13.0
600	31	4,191	-16.1	49	280	12.8
550	31	4,843	-20.4	44	278	14.6
500	31	5,540	-25.3	42	277	17.3
450	31	6,291	-31.0		274	19.4
400	31	7,123	-37.0		277	20.8
350	31	8,033	-43.8		280	23.7
300	31	9,052	-51.0		280	25.6
250	31	10,222	-56.5		282	31.3
200	31	11,631	-57.7		278	34.8
175	31	12,476	-56.3		273	35.0
150	31	13,456	-55.9		274	34.8
125	31	14,615	-57.1		273	32.1
100	30	16,022	-57.8		274	25.8
80	30	17,427	-58.0		274	22.2
70	27	18,287	-57.9		279	17.9
60	26	19,254	-57.2		281	15.0
50	23	20,410	-57.4		282	13.8
40	23	21,821	-56.9		291	10.7
30	18	23,657	-56.7		303	12.0
25	15	24,820	-56.1		301	11.3
20	9	26,283	-54.0			
15						

See reference note at end of table

RAWINSONDE DATA

Average monthly values

MARCH 1962

Standard pressure surface (mb.)	SAN ANTONIO, TEXAS (987 MB.)						SAN DIEGO, CALIF. (1002 MB.)						SAN JUAN, P. R. (1015 MB.)						SANTA MONICA, CALIF. (1013 MB.)						SAULT STE. MARIE, MICH. (992 MB.)					
					Wind						Wind						Wind						Wind						Wind	
	Number of observations	Dynamic height	Temperature	Relative humidity	Direction	Speed	Number of observations	Dynamic height	Temperature	Relative humidity	Direction	Speed	Number of observations	Dynamic height	Temperature	Relative humidity	Direction	Speed	Number of observations	Dynamic height	Temperature	Relative humidity	Direction	Speed	Number of observations	Dynamic height	Temperature	Relative humidity	Direction	Speed
SURFACE	31	243	10.0	74	2	3.1	31	124	8.3	85		0.0	31	6	21.8	86	123	1.6	31	38	9.6	72	26	2.5	31	221	- 5.7	79	67	2.3
1,000	31	135					31	143				.0	31	134	22.7	78	101	7.4	31	145	10.4	65	20	2.1	31	154				
950	31	565	11.0	[illegible]	77	1.4	31	563	8.2	67	273	2.7	31	580	20.0	75	102	7.8	31	570	8.8	60	34	1.6	31	560	- 3.6	61	99	4.7
900	31	1,015	9.9	54	192	4.1	31	1,014	6.3	58	275	3.7	31	1,045	16.8	72	82	6.4	31	1,017	6.7	56		.0	31	985	- 5.1	57	98	1.9
850	31	1,489	8.6	47	226	8.0	31	1,481	3.9	53	275	5.6	31	1,530	14.4	62	86	4.3	31	1,485	4.2	51	263	2.5	31	1,433	- 6.8	57	74	.8
800	31	1,990	7.0	39	242	11.9	31	1,972	1.7	40	280	8.7	31	2,041	12.5	48	77	4.1	31	1,976	2.1	40	272	6.8	31	1,906	- 7.9	50	277	1.6
750	31	2,518	4.6	37	251	16.7	31	2,485	- .5		287	11.1	31	2,579	10.8	36	71	3.3	31	2,493	- .6	29	277	10.7	31	2,405	- 9.9	47	288	4.5
700	31	3,078	1.7	33	256	23.5	31	3,040	- 3.3		283	13.4	31	3,154	8.9		69	2.5	31	3,043	- 3.6		281	14.0	31	2,936	-12.2	43	297	6.2
650	31	3,669	- 1.5		255	30.7	31	3,617	- 6.8		282	18.7	31	3,756	6.0		14	2.3	31	3,620	- 7.3		279	17.1	31	3,496	-15.1	38	298	8.4
600	31	4,307	- 5.8		254	35.4	31	4,244	-10.6		279	23.9	31	4,415	2.5		283	3.9	31	4,243	-11.4		288	20.8	31	4,101	-18.8		288	10.5
550	31	4,979	-10.4	31	253	40.0	31	4,899	-15.1		277	27.0	31	5,107	- 1.8		285	7.0	31	4,900	-15.8		284	25.1	31	4,740	-22.9		279	13.0
500	31	5,712	-15.3		256	47.8	31	5,623	-19.7		275	32.3	31	5,865	- 6.8		292	9.1	31	5,617	-20.9		279	29.1	31	5,436	-28.0	35	279	15.5
450	31	6,496	-20.5		258	58.1	31	6,387	-25.5		270	38.1	31	6,671	-12.3		289	14.0	31	6,380	-26.5		276	32.6	31	6,178	-33.7		277	16.9
400	31	7,364	-26.4	40	258	65.7	31	7,243	-31.6		268	45.9	31	7,568	-19.1		287	17.5	31	7,227	-32.9		276	39.2	31	6,999	-40.1		276	19.4
350	31	8,315	-33.1		260	76.9	31	8,175	-37.9		270	55.4	31	8,547	-26.3		286	22.3	31	8,154	-39.3		277	46.4	31	7,898	-46.9		277	23.5
300	31	9,382	-40.9		262	87.4	31	9,222	-44.9		269	67.2	31	9,643	-34.5		287	25.8	30	9,195	-46.5		277	50.1	31	8,904	-53.8		274	26.8
250	31	10,598	-49.9		261	97.2	31	10,420	-52.4		268	76.2	31	10,892	-43.8		277	33.8	30	10,385	-53.7		275	56.9	31	10,060	-59.0		271	31.5
200	30	12,027	-57.5		263	107.1	31	11,841	-58.4		263	74.2	31	12,355	-54.9		270	38.1	30	11,801	-58.5		270	60.4	31	11,462	-57.4		276	32.8
175	30	12,866	-60.0		263	98.9	31	12,680	-58.8		264	70.9	31	13,196	-60.9		266	40.8	30	12,641	-57.9		266	58.3	31	12,308	-56.2		275	34.2
150	30	13,819	-63.5		263	87.0	30	13,651	-59.2		265	61.8	31	14,141	-67.2		268	42.4	30	13,612	-58.4		267	54.2	31	13,291	-55.4		277	34.8
125	30	14,931	-66.6		263	75.0	30	14,787	-61.6		265	55.6	31	15,227	-71.9		272	31.5	30	14,752	-60.8		268	47.2	31	14,452	-56.0		275	35.6
100	30	16,272	-69.5		263	63.9	30	16,163	-63.2		264	44.3	31	16,527	-76.6		273	22.0	30	16,133	-62.3		268	39.4	31	15,870	-56.6		276	32.4
80	28	17,595	-70.0		265	46.6	30	17,532	-63.6		268	32.6	30	17,803	-79.0		278	13.2	30	17,507	-63.6		270	27.2	30	17,285	-56.9		275	32.6
70	26	18,407	-68.2		269	33.4	30	18,356	-63.2		270	24.1	30	18,575	-76.2		273	8.7	29	18,318	-62.8		272	22.9	30	18,131	-57.3		273	31.5
60	24	19,320	-65.7		267	21.8	30	19,302	-62.1		273	15.5	30	19,469	-70.9		283	5.2	29	19,274	-61.3		280	17.5	30	19,105	-57.5		272	32.6
50	24	20,438	-61.2		264	13.6	29	20,435	-59.8		283	9.1	30	20,568	-64.4		214	.6	28	20,410	-59.9		276	10.5	30	20,258	-56.9		269	29.9
40	24	21,833	-58.1		261	8.2	28	21,837	-57.8		282	8.2	30	21,951	-58.4		67	7.4	28	21,811	-57.7		283	7.4	30	21,673	-56.5		269	32.1
30	23	23,656	-54.7		272	11.5	23	23,680	-55.6		284	8.0	29	23,785	-53.6		86	12.4	27	23,625	-56.8		292	7.4	29	23,501	-55.6		265	34.2
25	22	24,826	-52.5		268	17.1	20	24,830	-54.2		288	12.4	27	24,963	-50.7		87	14.4	26	24,782	-55.1		287	9.3	28	24,660	-54.5		264	38.1
20	17	26,282	-50.0		264	21.8	13	26,265	-51.9				24	26,422	-47.2		99	14.4	24	26,214	-53.3		282	12.4	27	26,082	-53.5		263	42.7
15	15	28,167	-46.2		263	26.8							14	28,336	-44.8		104	14.2	20	28,084	-49.9		269	22.7	26	27,940	-50.0		261	44.9
10	13	30,881	-38.8										5	31,113	-39.4										25	30,617	-45.8		258	58.3
7																									20	32,997	-42.8		259	63.5
5																									14	35,288	-37.6			

Standard pressure surface (mb.)	SEATTLE, WASH. (999 MB.)						SHEMYA, ALASKA (996 MB.)						SHREVEPORT, LA. (1008 MB.)						SPOKANE, WASH. (929 MB.)						SWAN ISLAND, W. I. (1012 MB.)					
					Wind						Wind						Wind						Wind						Wind	
	Number of observations	Dynamic height	Temperature	Relative humidity	Direction	Speed	Number of observations	Dynamic height	Temperature	Relative humidity	Direction	Speed	Number of observations	Dynamic height	Temperature	Relative humidity	Direction	Speed	Number of observations	Dynamic height	Temperature	Relative humidity	Direction	Speed	Number of observations	Dynamic height	Temperature	Relative humidity	Direction	Speed
SURFACE	31	125	3.7	82	151	3.1	31	38	0.6	86	175	6.4	31	79	7.9	85	345	1.4	31	722	- 1.1	83	152	4.1	31	10	24.9	78	113	7.4
1,000	31	120			110	2.9	31	4			205	8.2	31	143	8.1	75		.0	31	131					31	116	24.1	78	112	9.1
950	31	536	3.2	73	199	8.2	31	412	- 2.3	81	193	9.1	31	569	7.8	60	257	4.5	31	544					31	561	20.6	79	127	12.0
900	31	974	.7	71	222	8.9	31	841	- 5.3	80	202	11.9	31	1,013	7.3	54	264	10.7	31	979	.2	74	201	7.2	31	1,030	17.6	73	136	10.1
850	31	1,432	- 2.0	69	226	9.9	31	1,288	- 7.9	72	215	12.0	31	1,482	5.9	45	269	13.4	31	1,437	- 1.7	69	227	9.7	31	1,518	15.6	58	134	6.4
800	31	1,912	- 4.6	64	239	10.3	31	1,756	-10.7	61	220	13.0	31	1,977	3.4	41	274	14.6	31	1,917	- 4.5	67	240	10.9	31	2,030	13.4	50	113	4.7
750	31	2,417	- 7.3	60	252	11.1	31	2,252	-13.2	53	214	13.6	31	2,498	.5	43	280	19.6	31	2,419	- 7.7	64	245	12.4	31	2,575	11.9	32	96	4.5
700	31	2,952	-10.3	58	258	13.4	31	2,773	-16.0	51	214	16.7	31	3,049	- 1.7	36	277	24.1	31	2,956	-11.0	61	256	12.2	31	3,148	9.9		67	3.3
650	31	3,519	-13.4	55	264	15.2	31	3,324	-19.3	48	208	18.7	31	3,636	- 4.7	35	272	29.3	31	3,517	-14.2	57	259	14.6	31	3,756	6.5		12	1.6
600	31	4,126	-17.1	54	264	15.9	31	3,919	-23.2	45	212	19.2	31	4,262	- 8.6	32	267	34.4	31	4,125	-17.9	54	261	14.8	31	4,412	2.7		322	3.7
550	31	4,770	-21.4	51	263	18.1	31	4,547	-27.1	44	211	23.3	31	4,928	-12.8		267	40.8	31	4,766	-22.2	50	265	16.7	31	5,101	- 1.6		296	4.5
500	31	5,470	-26.3	49	272	20.2	31	5,232	-31.6	43	216	24.9	31	5,653	-17.8		266	48.0	31	5,463	-27.1	49	275	18.5	31	5,862	- 6.5		281	5.8
450	31	6,217	-31.7	48	277	22.5	31	5,969	-36.7		219	27.6	31	6,427	-23.2		267	52.8	31	6,213	-32.5	46	275	20.4	31	6,672	-12.0		279	8.5
400	31	7,047	-37.8	49	284	24.9	31	6,776	-42.0		221	30.1	31	7,286	-29.6	39	263	61.0	31	7,036	-38.2		281	22.5	31	7,568	-18.5		276	12.0
350	31	7,955	-44.2		289	27.6	31	7,670	-47.0		223	32.8	31	8,225	-36.0		263	71.1	31	7,942	-44.9		280	26.2	31	8,550	-25.8		285	16.3
300	31	8,973	-50.7		291	31.7	31	8,682	-50.7		229	34.8	31	9,280	-43.3		265	81.4	31	8,957	-51.6		288	29.0	31	9,648	-34.1		284	22.3
250	31	10,144	-56.7		295	32.1	31	9,866	-51.8		229	31.7	31	10,486	-51.3		267	94.2	31	10,124	-57.4		290	33.0	31	10,900	-43.7		279	27.8
200	31	11,547	-58.1		295	28.4	31	11,322	-49.1		225	28.6	31	11,915	-56.8		268	98.3	31	11,526	-58.5		292	30.3	31	12,362	-55.2		266	35.4
175	31	12,392	-56.1		295	26.4	30	12,199	-48.0		221	28.2	31	12,758	-58.8		267	89.6	31	12,372	-56.2		287	28.8	31	13,202	-61.2		263	38.1
150	31	13,373	-55.2		297	23.5	30	13,215	-47.9		222	25.8	31	13,721	-61.1		267	76.9	31	13,356	-54.7		289	25.1	29	14,142	-67.1		264	36.7
125	31	14,537	-55.4		301	21.8	29	14,411	-48.2		223	21.2	30	14,839	-64.2		267	74.0	31	14,521	-55.6		293	23.9	29	15,228	-72.3		264	28.6
100	31	15,959	-56.2		301	21.4	28	15,879	-48.7		212	18.7	30	16,197	-66.2		268	55.2	31	15,941	-56.3		288	21.2	27	16,523	-77.0		264	17.9
80	31	17,379	-55.7		306	19.8	28	17,345	-49.0		215	12.2	29	17,552	-66.2		267	46.6	30	17,363	-55.9		297	17.5	26	17,796	-78.7		263	9.3
70	31	18,232	-56.1		311	17.5	28	18,219	-49.4		210	10.3	29	18,378	-66.0		266	39.6	30	18,213	-55.8		305	17.7	26	18,565	-75.9		276	7.6
60	29	19,227	-55.4		317	12.8	28	19,230	-49.6		201	8.0	29	19,302	-63.1		274	22.2	30	19,193	-55.9		306	17.3	25	19,465	-71.3		275	4.3
50	29	20,390	-55.4		325	11.3	28	20,422	-50.3		198	6.8	29	20,433	-59.9		259	18.1	29	20,367	-55.4		313	13.8	25	20,561	-64.6		265	4.5
40	26	21,828	-55.7		335	11.9	28	21,875	-51.4		180	5.1	29	21,834	-57.6		272	12.6	28	21,796	-56.0		318	11.7	24	21,944	-58.0		83	1.0
30	20	23,681	-55.0		338	10.3	27	23,738	-52.5		159	3.9	27	23,661	-55.2		264	18.8	28	23,624	-55.8		324	13.6	22	23,781	-53.0		92	8.5
25	19	24,846	-55.3		348	10.1	25	24,919	-52.8		156	3.3	25	24,831	-53.5		264	16.9	25	24,794	-56.0		315	12.2	21	24,967	-50.3		86	11.7
20	13	26,231	-54.9		343	12.2	21	26,360	-53.0		120	4.9	25	26,276	-50.7		266	19.4	12	26,266	-55.8		354	7.0	16	26,435	-45.9		83	15.5
15							9	28,267	-52.8				25	28,168	-46.5		263	26.2							6	28,358	-42.5			
10													20	30,895	-39.1		266	36.7												
7													15	33,346	-35.2		267	55.0												
5													10	35,644	-32.6															

Standard pressure surface (mb.)	TAMPA, FLA. (1016 MB.)						TATOOSH IS., WASH. (1010 MB.)						TOPEKA, KANS. (984 MB.)						TRUK, CAROLINE IS. (1010 MB.)						TUCSON, ARIZ. (924 MB.)					
					Wind						Wind						Wind						Wind						Wind	
	Number of observations	Dynamic height	Temperature	Relative humidity	Direction	Speed	Number of observations	Dynamic height	Temperature	Relative humidity	Direction	Speed	Number of observations	Dynamic height	Temperature	Relative humidity	Direction	Speed	Number of observations	Dynamic height	Temperature	Relative humidity	Direction	Speed	Number of observations	Dynamic height	Temperature	Relative humidity	Direction	Speed
SURFACE	31	8	14.1	83	8	1.7	31	31	5.2	82	107	4.9	31	269	- 0.5	78	31	2.5	31	2	27.2	79	44	6.8	31	789	5.9	56	169	5.2
1,000	31	138	15.0	77	45	1.2	31	114			126	3.5	31	135					31	88	26.6	79	52	9.9	31	134				
950	31	573	13.5	70	248	3.3	31	528	3.2	71	184	4.1	31	546	.0	67	93	1.6	31	536	23.6	79	74	19.2	31	560				
900	31	1,026	11.5	63	241	8.4	31	968	.5	70	222	5.4	31	980	.1	54	232	4.7	31	1,013	20.5	78	81	19.0	31	1,006	10.0	38	185	4.9
850	31	1,503	10.1	56	257	11.7	31	1,425	- 2.4	69	226	7.4	31	1,437	- 1.0	51	272	7.0	31	1,506	17.5	77	90	17.3	31	1,479	7.7	37	218	4.5
800	31	2,007	8.6	44	266	16.9	31	1,904	- 4.9	59	246	8.2	31	1,920	- 2.7	48	281	11.1	31	2,024	15.1	66	91	15.5	31	1,976	4.3	38	243	7.2
750	31	2,538	6.9	39	268	22.7	31	2,408	- 7.8	58	251	10.3	31	2,430	- 4.9	45	278	13.0	31	2,574	13.2	49	91	14.8	31	2,494	.7	37	252	9.9
700	31	3,104	4.2	33	269	27.4	31	2,942	-10.7	56	262	10.9	31	2,969	- 8.2	45	274	14.8	31	3,148	10.1	44	89	14.2	31	3,048	- 2.7		255	14.0
650	31	3,699	.6		270	31.5	31	3,503	-14.1	53	269	12.0	31	3,535	-11.6	40	277	18.8	31	3,763	6.5	38	92	15.9	31	3,625	- 5.7		259	21.0
600	31	4,341	- 3.4		271	36.5	31	4,112	-17.9	51	273	16.1	31	4,150	-15.5	39	279	22.3	31	4,414	2.9		93	18.8	31	4,256	- 9.4		262	27.8
550	31	5,016	- 7.8		271	41.2	31	4,751	-21.7	47	275	19.4	31	4,799	-19.8	40	275	28.0	31	5,111	- .9		94	20.2	31	4,913	-13.9		268	32.4
500	31	5,759	-12.8	32	271	46.0	31	5,454	-26.2	42	277	22.2	31	5,502	-24.9	39	272	31.1	31	5,871	- 5.0		94	23.9	31	5,640	-18.8		263	39.2
450	31	6,548	-18.3	34	270	53.4	31	6,197	-31.5	40	282	23.7	31	6,254	-30.4		269	36.9	31	6,689	- 9.8		90	24.7	31	6,406	-24.1		265	47.4
400	31	7,425	-24.1	34	270	61.4	31	7,032	-37.5	39	288	23.9	31	7,087	-36.5		266	41.4	31	7,595	-15.4		83	23.3	31	7,267	-30.0		262	54.4
350	31	8,385	-30.7		271	66.6	31	7,941	-43.9		285	25.3	31	8,000	-43.2		268	46.4	31	8,590	-22.0		79	21.0	31	8,205	-36.4		265	58.5
300	31	9,462	-38.3		273	75.2	31	8,959	-50.9		278	25.3	31	9,024	-49.5		269	55.8	31	9,706	-30.4		91	13.2	30	9,266	-43.8		265	68.8
250	31	10,691	-47.7		276	81.6	31	10,129	-57.0		285	29.9	31	10,205	-54.4		270	66.3	31	10,976	-40.5		109	11.5	30	10,468	-51.8		266	78.3
200	31	12,134	-56.5		275	85.1	31	11,531	-58.3		287	25.8	31	11,626	-56.3		268	70.3	31	12,457	-52.7		116	11.1	30	11,892	-57.9		272	71.3
175	30	12,984	-60.4		272	81.6	30	12,376	-56.3		292	20.4	31	12,476	-55.8		269	67.2	31	13,306	-59.5		114	9.5	30	12,732	-58.7		274	65.9
150	26	13,929	-63.7		273	80.1	30	13,358	-54.8		301	19.6	31	13,457	-55.9		269	60.2	31	14,254	-67.1		106	6.4	30	13,698	-59.6		272	62.8
125	26	15,040	-67.1		271	66.1	30	14,523	-55.3		303	19.4	31	14,613	-57.8		269	51.5	31	15,332	-75.3		93	10.3	30	14,831	-62.1		269	57.9
100	25	16,371	-70.7		271	56.2	30	15,943	-56.2		307	16.5	31	16,015	-59.4		269	43.3	31	16,601	-82.1		101	15.9	30	16,201	-64.3		267	49.0
80	25	17,691	-71.2		272	42.0	30	17,360	-56.1		312	16.7	31	17,409	-60.5		274	35.2	29	17,855	-78.9		82	7.6	30	17,563	-64.8		269	36.7
70	25	18,495	-69.7		272	29.7	30	18,205	-56.2		317	15.2	31	18,243	-60.5		275	32.1	28	18,620	-75.1		19	2.9	30	18,382	-64.4		271	28.4
60	25	19,411	-65.9		266	14.2	30	19,188	-56.0		326	15.0	31	19,203	-60.1		274	26.6	27	19,523	-70.6		275	7.6	30	19,325	-62.6		283	17.3
50	24	20,534	-61.2		273	9.3	30	20,346	-56.3		327	15.5	30	20,356	-58.5		274	22.3	27	20,613	-67.0		277	11.7	28	20,464	-60.0		272	9.9
40	24	21,934	-56.8		298	1.9	29	21,771	-56.1		336	11.7	29	21,770	-57.3		273	17.9	27	21,979	-61.9		275	11.7	28	21,864	-57.7		270	5.8
30	22	23,780	-52.6		20	2.7	27	23,622	-56.1		345	12.6	28	23,601	-56.1		268	15.5	26	23,777	-57.4		273	6.2	25	23,694	-55.0		273	9.1
25	20	24,964	-50.5		54	4.7	26	24,777	-56.2		350	10.1	28	24,763	-55.5		272	17.9	26	24,939	-53.9		101	9.7	25	24,864	-53.4		268	13.6
20	18	26,419	-47.5		4	1.7	24	26,201	-55.4		350	10.3	24	26,198	-53.9		279	24.3	26	26,378	-51.8		91	29.9	25	26,306	-51.5		266	19.2
15	13	28,343	-43.3		36	1.6	20	28,045	-54.2		324	13.4	16	28,072	-49.9		278	28.6	24	28,265	-47.0		95	45.5	25	28,194	-47.2		267	26.6
10							17	30,680	-51.7		333	9.7							16	30,977	-41.6		80	67.6	24	30,925	-40.6		261	39.6
7																									10	33,329	-35.7			

See reference note at end of table

RAWINSONDE DATA

Average monthly values

MARCH 1962

WAKE IS., PACIFIC AREA (1016 MB.)

Standard pressure surface (mb.)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind Direction	Wind Speed
SURFACE	31	5	24.2	77	65	13.8
1,000	31	148	23.0	77	66	17.5
950	31	591	19.7	79	74	17.3
900	31	1,058	16.2	81	83	16.1
850	31	1,543	13.4	74	85	13.8
800	31	2,053	12.8	38	81	12.2
750	31	2,591	10.9		77	10.9
700	31	3,165	8.4		64	7.8
650	31	3,771	5.4		41	6.4
600	31	4,423	1.6		3	6.8
550	31	5,113	- 2.6		345	5.8
500	31	5,868	- 7.6		334	7.6
450	31	6,676	-13.0		338	14.6
400	31	7,569	-18.8		329	22.5
350	31	8,551	-25.4		317	23.7
300	31	9,651	-33.5		310	25.5
250	31	10,906	-43.1		315	32.4
200	31	12,374	-54.0		313	38.3
175	31	13,220	-60.0		308	39.1
150	31	14,167	-66.7		306	34.8
125	31	15,250	-73.5		300	30.5
100	31	16,536	-79.1		303	23.3
80	31	17,797	-80.3		302	15.7
70	31	18,553	-77.4		308	11.1
60	29	19,453	-72.1		308	5.8
50	29	20,543	-65.8		350	1.4
40	29	21,920	-59.3		103	5.1
30	29	23,744	-54.2		74	7.6
25	29	24,920	-51.7		89	8.2
20	29	26,377	-48.5		76	7.8
15	27	28,288	-45.8		80	14.6
10	23	31,008	-42.0		66	15.7
7	18	33,471	-36.8		85	22.9
5	14	35,797	-34.1		80	24.5

WASHINGTON, D. C. (1006 MB.)

Standard pressure surface (mb.)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind Direction	Wind Speed
SURFACE	31	84	0.3	76	328	3.1
1,000	31	136			328	4.9
950	31	548	.9	58	338	8.5
900	31	982	- 1.0	58	331	9.3
850	31	1,437	- 2.2	54	322	10.1
800	31	1,918	- 3.6	50	308	11.9
750	31	2,428	- 5.4	45	305	13.0
700	31	2,966	- 8.0	42	292	12.4
650	31	3,536	-11.0		287	16.7
600	31	4,149	-15.1	38	285	19.4
550	31	4,803	-19.1	38	285	24.5
500	31	5,507	-23.3		282	31.9
450	31	6,262	-28.6		278	35.2
400	31	7,104	-34.9		277	40.6
350	31	8,023	-41.6		274	48.8
300	31	9,051	-48.8		274	56.7
250	31	10,232	-54.8		274	68.2
200	31	11,650	-56.4		274	71.5
175	30	12,506	-55.6		275	63.7
150	30	13,487	-56.3		276	59.3
125	30	14,640	-57.8		273	52.8
100	30	16,042	-59.2		274	43.7
80	30	17,438	-59.8		272	36.9
70	29	18,280	-58.7		273	29.0
60	29	19,240	-57.9		270	28.8
50	29	20,391	-57.2		270	26.0
40	28	21,808	-56.3		265	21.2
30	26	23,642	-54.0		257	22.0
25	24	24,827	-52.9		255	17.7
20	18	26,258	-51.2		254	21.2
15	17	28,141	-48.0		255	24.9
10	6	30,852	-43.3			
7						
5						

WINNEMUCCA, NEV. (867 MB.)

Standard pressure surface (mb.)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind Direction	Wind Speed
SURFACE	31	1,310	- 1.6	82	226	0.8
1,000	31	158				
950	31	570				
900	31	1,011				
850	31	1,470	.3	62	213	2.1
800	31	1,954	- 2.2	57	243	6.0
750	31	2,458	- 5.2	56	253	9.7
700	31	3,002	- 8.5	53	261	12.0
650	31	3,567	-12.0	50	261	13.2
600	31	4,183	-15.8	47	269	16.3
550	31	4,823	-20.3	43	278	17.9
500	31	5,533	-24.8	41	277	18.7
450	31	6,281	-30.3	37	277	19.0
400	31	7,119	-36.8		276	20.6
350	31	8,029	-43.7		281	21.8
300	31	9,049	-50.6		302	18.8
250	31	10,220	-56.8		297	25.5
200	31	11,623	-58.6		285	29.3
175	31	12,466	-56.4		285	26.2
150	31	13,445	-56.6		277	26.4
125	30	14,602	-56.9		283	24.1
100	30	16,011	-58.0		282	22.3
80	29	17,422	-58.5		286	16.9
70	28	18,266	-58.1		294	12.8
60	28	19,238	-57.7		300	11.7
50	26	20,404	-56.8		305	8.0
40	24	21,824	-56.0		319	7.0
30	22	23,661	-56.4		321	7.8
25	18	24,836	-55.5		339	4.1
20	15	26,286	-54.8		314	7.4
15	6	28,165	-52.3			
10						
7						
5						

WINSLOW, ARIZ. (850 MB.)

Standard pressure surface (mb.)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind Direction	Wind Speed
SURFACE	31	1,492	- 0.8	66	205	5.2
1,000	31	168				
950	31	579				
900	31	1,020				
850	31	1,487			202	3.5
800	31	1,976	2.1	42	251	8.9
750	31	2,494	- 1.0	39	259	12.0
700	31	3,042	- 4.9	41	257	13.8
650	31	3,614	- 8.8	37	258	15.5
600	31	4,236	-13.1		262	19.0
550	31	4,886	-17.2		266	24.7
500	31	5,603	-21.8		265	29.5
450	31	6,364	-27.5		266	33.2
400	31	7,209	-33.4		268	40.2
350	31	8,133	-39.8		268	50.3
300	31	9,172	-46.2		268	62.2
250	31	10,363	-53.2		269	66.5
200	31	11,787	-56.4		268	67.8
175	31	12,633	-57.0		268	62.6
150	31	13,606	-58.1		266	58.7
125	31	14,749	-59.6		266	52.5
100	29	16,135	-61.7		262	41.6
80	27	17,505	-62.4		263	31.7
70	27	18,338	-61.5		264	23.7
60	26	19,285	-60.9		265	17.9
50	25	20,422	-59.6		270	15.7
40	24	21,827	-57.8		277	13.6
30	22	23,658	-56.0		272	9.1
25	19	24,832	-54.4		271	16.1
20	8	26,330	-52.2			
15						
10						
7						
5						

YAKUTAT, ALASKA (1010 MB.)

Standard pressure surface (mb.)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind Direction	Wind Speed
SURFACE	31	12	- 4.7	89	113	5.1
1,000	31	93			121	8.4
950	31	501	- 2.7	69	138	10.5
900	31	928	- 5.2	66	164	8.5
850	31	1,375	- 7.9	66	189	8.2
800	31	1,843	-10.9	63	202	8.5
750	31	2,335	-13.9	60	217	9.1
700	31	2,858	-16.9	55	234	11.5
650	31	3,410	-19.6	54	248	13.8
600	31	4,001	-23.1	54	264	14.0
550	31	4,632	-27.0	52	269	16.1
500	31	5,315	-31.2	49	266	22.2
450	31	6,051	-35.7	46	276	26.4
400	31	6,866	-40.7		271	33.8
350	31	7,765	-46.1		273	39.2
300	31	8,778	-51.1		272	42.6
250	31	9,957	-52.8		281	39.4
200	31	11,400	-51.4		288	29.5
175	31	12,269	-50.6		291	28.2
150	31	13,275	-50.4		290	22.3
125	31	14,461	-51.3		295	22.9
100	31	15,909	-51.9		303	18.5
80	30	17,358	-52.2		313	16.5
70	30	18,220	-52.8		320	18.7
60	30	19,215	-52.7		330	18.5
50	29	20,386	-53.3		331	19.2
40	28	21,820	-53.8		334	19.2
30	23	23,663	-54.2		342	22.2
25	22	24,823	-54.7		343	24.7
20	19	26,263	-54.5		352	22.5
15	17	28,097	-54.5		350	24.5
10						
7						
5						

YAP, CAROLINE IS. (1008 MB.)

Standard pressure surface (mb.)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind Direction	Wind Speed
SURFACE	30	17	26.9	84	61	10.3
1,000	30	88	26.4	83	68	12.0
950	30	528	23.1	82	76	18.3
900	30	1,010	20.1	78	84	22.5
850	30	1,503	17.6	67	89	21.8
800	30	2,020	15.6	52	93	19.4
750	30	2,562	13.1	42	91	18.3
700	30	3,143	10.1	37	91	18.1
650	30	3,747	6.6		92	18.3
600	30	4,408	2.9		96	19.8
550	30	5,099	- 1.0	37	94	22.2
500	29	5,862	- 5.3		100	22.3
450	29	6,677	-10.1		98	22.9
400	29	7,581	-15.9		93	18.1
350	29	8,575	-22.6		91	16.7
300	29	9,688	-31.1		91	13.8
250	29	10,954	-41.3		116	11.1
200	28	12,428	-53.5		133	12.0
175	28	13,273	-60.7		137	11.3
150	28	14,215	-68.5		132	13.6
125	28	15,286	-76.2		131	15.9
100	28	16,552	-81.4		118	14.0
80	27	17,806	-80.1		129	6.8
70	26	18,571	-76.1		141	2.3
60	25	19,468	-71.9		252	4.3
50	25	20,556	-67.5		270	10.1
40	25	21,916	-62.8		286	11.7
30	25	23,715	-56.4		299	3.5
25	25	24,881	-54.1		95	8.7
20	25	26,323	-51.3		85	22.0
15	25	28,212	-46.8		90	37.5
10	21	30,936	-42.5		89	51.3
7	9	33,358	-39.6			
5	5	35,669	-37.4			

YUCCA FLAT, NEV. (880 MB.)

Standard pressure surface (mb.)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind Direction	Wind Speed
SURFACE	31	1,196	- 1.6	64	324	2.5
1,000	31	161				
950	31	574				
900	31	1,012				
850	31	1,476	3.7	39	347	4.1
800	31	1,965	.5	39	324	1.9
750	31	2,476	- 2.4	38	278	2.9
700	31	3,024	- 5.6	37	260	5.4
650	31	3,595	- 9.4	39	268	10.1
600	31	4,214	-13.7	38	280	12.8
550	31	4,866	-18.2	36	284	17.7
500	31	5,575	-23.3	37	281	20.0
450	31	6,328	-29.1		280	22.5
400	31	7,169	-35.1		281	24.1
350	31	8,087	-41.6		278	30.1
300	31	9,118	-48.2		274	41.0
250	31	10,301	-54.8		270	46.0
200	31	11,715	-57.6		268	52.7
175	31	12,560	-56.7		269	52.8
150	31	13,536	-57.6		267	47.0
125	31	14,685	-58.3		268	43.9
100	30	16,077	-59.6		270	35.0
80	29	17,471	-60.5		268	27.0
70	28	18,304	-60.1		274	21.4
60	28	19,267	-59.1		276	16.3
50	28	20,413	-58.2		280	14.6
40	25	21,817	-57.4		286	10.3
30	24	23,638	-56.0		307	9.7
25	20	24,802	-55.4		314	8.0
20	8	26,244	-53.5			
15						
10						
7						
5						

YUMA, ARIZ. (998 MB.)

Standard pressure surface (mb.)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind Direction	Wind Speed
SURFACE	31	131	9.0	44	331	1.0
1,000	31	115			360	2.1
950	31	542	12.6	33	294	6.2
900	31	997	10.0	31	293	7.2
850	31	1,470	7.1	30	287	5.6
800	31	1,965	3.7	31	262	5.6
750	31	2,484	.6	27	264	8.4
700	31	3,037	- 2.3	23	261	11.9
650	31	3,614	- 6.0	21	259	17.5
600	31	4,244	-10.1	23	262	24.7
550	31	4,902	-14.3	22	264	30.1
500	31	5,626	-19.4	23	258	35.6
450	31	6,392	-24.8	24	257	40.8
400	31	7,247	-31.0	29	256	49.7
350	31	8,181	-37.8	35	253	62.0
300	31	9,227	-44.6		252	71.7
250	31	10,428	-52.3		253	83.7
200	30	11,846	-57.7		252	84.9
175	28	12,682	-58.4		250	81.4
150	25	13,654	-58.9		250	73.8
125	23	14,790	-61.6		249	66.3
100	23	16,168	-62.8		250	54.2
80	19	17,538	-63.5		253	43.9
70	19	18,362	-63.4		256	36.9
60	18	19,312	-62.7		257	31.7
50	15	20,450	-59.9		256	18.5
40	15	21,851	-57.7		261	12.4
30	14	23,671	-56.0		261	14.0
25	12	24,838	-54.4		252	16.7
20	11	26,278	-52.0			
15	5	28,116	-47.6			
10						
7						
5						

Note: All observations scheduled at 1200, G. C T Pressures shown under station names are the average monthly station pressures for the month of record, corrected to the height of the floors of the instrument shelters used for rawinsonde purposes. "Number of observations" refers to those of dynamic height only. Although the number of temperature observations at any given pressure surface is usually the same as for height, it is possible for temperature to be missing for one or more pressure surfaces of some observations. Relative humidity averages are limited to those observations with temperatures warmer than -40°C Observations of wind speed and direction are sometimes lost due to limiting angles, i. e., elevation angles less than 6° above the horizon, or any obstruction above the horizon.

The temperature and wind values are based on 15 or more observations at the surface or 5 observations at a standard pressure level for temperature and 10 for wind. Relative humidity data are not published for standard pressure surfaces for which less than 16 observations are available.

Relative humidity data are computed and expressed on the basis of vapor pressure over water. Unless otherwise indicated, they are obtained from lithium chloride hygristors.

These average values for standard pressure surfaces were obtained by rawinsondes; dynamic height (geopotential) in units of .98 dynamic meter, temperature in degrees Celsius, relative humidity in percent, and resultant winds in degrees and knots.

SOLAR RADIATION DATA

Solar radiation intensities, tabulated in langleys per minute on a surface normal to the direction of the sun.

MARCH 1962

BLUE HILL OBS., MASS.

Date	Sun's zenith distance								
	A M				*	P M			
	78.7°	75.7°	70.7°	60.0°		60.0°	70.7°	75.7°	78.7°
	Air mass								
	4.89	3.92	2.94	1.96	*	1.96	2.94	3.92	4.89
Mar.									
1-----	0.90	0.99	1.17	1.39	1.52	1.41	1.24	1.11	1.00
2-----	1.07	1.18	1.25	1.41	1.49	1.36	1.22	1.11	1.00
3-----	1.08	1.17	1.30	1.42	1.50	1.40	1.20	1.07	.98
7-----	----	----	----	----	----	1.22	1.04	.93	.86
8-----	----	----	----	----	1.41	1.33	1.20	1.08	1.00
9-----	1.07	1.15	1.23	1.33	----	----	----	----	----
10----	----	----	----	----	1.40	1.30	1.15	1.01	.91
11----	.99	1.07	1.18	1.33	1.45	----	----	----	----
14----	----	----	----	----	1.41	1.32	1.15	1.01	.91
15----	.96	1.07	1.16	1.32	1.41	1.27	1.11	.99	.89
18----	1.07	1.16	1.25	1.39	1.49	1.32	1.17	1.04	.93
19----	----	----	----	----	1.40	1.28	1.11	.94	.82
20----	.83	.93	1.07	1.23	1.37	1.15	.99	.81	.69
22----	----	----	----	----	1.42	1.21	1.00	.84	.74
23----	.83	.89	1.01	1.21	1.40	1.15	.95	.77	.65
24----	.83	.91	1.05	1.20	1.34	----	----	----	----
25----	----	----	1.10	1.23	1.35	1.20	1.06	.93	.83
26----	.88	.95	1.06	1.22	----	----	----	----	----
28----	----	----	----	----	----	----	.96	.84	.72
29----	.67	.76	.88	1.04	1.25	----	----	----	----
Averages	0.93	1.02	1.13	1.29	1.41	1.28	1.10	0.97	0.86

MAUNA LOA OBS., HAWAII

Date	Sun's zenith distance								
	A M				*	P M			
	78.7°	75.7°	70.7°	60.0°		60.0°	70.7°	75.7°	78.7°
	Air mass								
	3.36	2.69	2.01	1.34	*	1.34	2.01	2.69	3.36
Mar.									
2-----	1.30	1.37	1.47	1.58	1.67	1.52	1.41	1.32	1.24
6-----	1.25	1.34	1.43	1.55	----	----	----	----	----
7-----	1.28	1.36	1.45	1.56	1.64	----	----	----	----
8-----	1.22	1.31	----	----	----	----	----	----	----
10----	1.26	1.35	1.44	1.55	----	----	----	----	----
11----	1.26	1.34	----	----	----	----	----	----	----
15----	----	----	----	----	----	1.56	1.44	1.35	1.28
16----	1.28	1.36	1.45	1.56	----	----	----	----	----
17----	1.29	1.37	1.46	1.57	1.66	1.50	----	----	----
21----	----	----	----	----	----	1.54	1.42	1.33	1.26
22----	1.26	1.35	1.44	1.56	1.67	----	----	----	----
23----	1.21	1.31	1.41	1.52	----	----	----	----	----
24----	1.17	1.26	1.37	1.49	----	----	----	----	----
25----		Instrument inoperative							
26----	1.20	1.29	1.39	1.49	----	----	----	----	----
27----	1.12	1.21	1.33	1.39	----	----	----	----	----
28----	1.18	1.27	1.38	1.51	1.64	----	----	----	----
29----	1.19	1.27	1.41	1.51	----	----	----	----	----
30----	1.19	1.27	1.38	----	----	----	----	----	----
31----	1.09	1.19	1.29	1.46	1.64	1.45	1.30	1.19	1.08
Averages	1.22	1.31	1.41	1.52	1.65	1.51	1.39	1.30	1.22

ALBUQUERQUE, N. MEX.

Date	Sun's zenith distance								
	A M				*	P M			
	78.7°	75.7°	70.7°	60.0°		60.0°	70.7°	75.7°	78.7°
	Air mass								
	4.19	3.35	2.51	1.67	*	1.67	2.51	3.35	4.19
Mar.									
1-----	----	----	----	----	----	1.39	1.26	1.15	1.05
2-----	1.12	1.21	1.31	(1.32)	1.54	1.37	----	----	----
3-----	.97	1.09	1.19	1.22	1.42	(1.24)	(1.13)	1.03	.91
4-----	1.08	1.16	1.26	1.37	1.49	1.38	1.26	1.15	1.07
14----	----	----	(.51)	----	(.71)	----	----	----	----
15----	.96	1.04	1.14	1.29	1.41	1.28	1.14	1.05	.95
16----	.96	1.07	1.16	1.28	1.49	1.38	----	----	----
17----	----	----	----	1.33	1.49	1.33	1.17	----	.91
18----	1.08	1.16	1.27	1.40	1.54	1.37	1.23	1.12	1.01
19----	1.03	1.14	1.24	1.35	----	----	----	----	----
20----	----	----	----	1.21	----	(1.26)	(.85)	----	----
21----	(.85)	(.96)	(1.09)	----	----	----	----	----	----
22----	(.85)	.96	1.04	1.17	1.39	----	----	----	----
24----	D (.78)	D (.85)	D (.97)	D(1.15)	D(1.38)	D(1.24)	D(1.08)	D (.89)	D (.75)
25----	.91	.99	1.10	1.25	1.42	----	----	----	----
26----	.98	1.09	1.19	1.31	1.44	1.31	1.17	1.09	1.01
27----	.89	.98	1.09	1.24	----	----	----	----	----
28----	.85	.95	1.06	1.22	1.43	----	----	----	----
29----	----	----	----	1.19	----	----	----	----	----
30----	.77	.84	----	----	----	----	----	----	----
31----	.86	.97	1.10	1.28	1.45	----	1.14	1.02	.93
Averages	0.96	1.05	1.17	1.27	1.46	1.35	1.20	1.09	0.98

GUAM, M. I.

Date	Sun's zenith distance								
	A M				*	P M			
	78.7°	75.7°	70.7°	60.0°		60.0°	70.7°	75.7°	78.7°
	Air mass								
	4.92	3.93	2.95	1.97	*	1.97	2.95	3.93	4.92
	No observations during March								

D Dust
( ) Clouds present
* Values corresponding to true solar noon

Langley is the unit used to denote one gram calorie per square centimeter. An explanation of the formula used in computing the air mass values for each station listed above appears in the February 1957 issue, Vol. 8, No. 2, page 63, of this publication.

SOLAR RADIATION DATA

Daily totals and weekly averages of solar radiation (direct and diffuse) received on a horizontal surface, tabulated in langleys.

1962	Albuquerque, N.Mex.	Ames, Iowa	Annette, Alaska	Apalachicola, Fla.	Astoria, Oreg.	Barrow, Alaska	Bethel, Alaska	Bismarck, N. Dak.	Blue Hill Obs., Mass.	Boise, Idaho	Boston, Mass.	Brownsville, Tex.	Canton Island, Pacific Area
Mar. 5-----	471	462	327	572	56	208	153	449	82	265	82	581	703
Mar. 6-----	367	474	148	587	---	142	142	349	82	100	78	448	694
Mar. 7-----	255	---	34	576	127	145	163	300	259	248	260	354	599
Mar. 8-----	228	---	337	555	228	157	124	437	375	274	368	461	674
Mar. 9-----	348	---	245	416	359	167	281	174	363	324	343	361	690
Mar. 10-----	421	---	357	354	253	164	314	176	456	396	425	308	687
Mar. 11-----	573	---	63	323	368	171	325	295	458	315	462	561	657
Average-------	381	---	216	483	232	165	215	312	296	275	288	439	672
Mar. 12-----	398	---	32	535	444	179	327	285	46	403	33	559	692
Mar. 13-----	489	---	81	572	436	185	315	458	205	524	---	176	580
Mar. 14-----	512	497	83	279	422	182	326	497	393	---	448	93	682
Mar. 15-----	612	544	65	306	283	197	394	471	482	484	494	244	686
Mar. 16-----	606	---	40	600	343	193	269	484	462	391	421	626	653
Mar. 17-----	599	508	82	634	466	218	216	451	277	467	302	288	626
Mar. 18-----	628	407	363	610	109	220	355	213	522	453	534	193	697
Average-------	549	489	107	505	357	196	314	408	341	454	372	311	659
Mar. 19-----	553	508	197	597	256	219	311	312	493	397	462	355	662
Mar. 20-----	459	219	307	219	272	186	397	211	498	204	510	409	---
Mar. 21-----	425	529	408	232	63	198	401	465	90	301	122	495	---
Mar. 22-----	585	392	292	74	185	238	402	418	485	151	490	365	650
Mar. 23-----	330	302	109	535	143	252	416	166	538	547	520	625	656
Mar. 24-----	631	302	135	496	147	260	475	291	508	154	518	552	436
Mar. 25-----	632	475	323	301	356	232	264	387	512	289	527	627	670
Average-------	516	390	253	351	203	226	381	321	447	292	450	490	615
Mar. 26-----	650	479	316	603	188	296	245	478	395	355	354	631	434
Mar. 27-----	609	492	317	609	280	253	385	467	82	166	101	645	537
Mar. 28-----	645	481	157	627	545	---	390	188	259	563	288	490	673
Mar. 29-----	407	143	434	537	531	201	396	368	506	558	482	362	469
Mar. 30-----	355	527	401	550	522	325	237	365	506	577	496	406	---
Mar. 31-----	673	212	455	125	304	254	---	364	355	559	354	177	613
Apr. 1-----	---	194	482	633	113	353	468	309	34	553	55	655	572
Average-------	557	361	366	526	355	280	353	363	305	476	304	481	550

1962	Caribou, Maine	Charleston, S. C.	Cleveland, Ohio	Columbia, Mo.	Corvallis, Oreg.	Dodge City, Kans.	E. Lansing, Mich.	El Paso, Texas	Ely, Nev.	Fairbanks, Alaska	Flaming Gorge, Utah	Fort Worth, Texas	Fresno, Calif.
Mar. 5-----	160	529	85	293	103	---	257	577	221	90	416	568	204
Mar. 6-----	286	411	86	514	250	---	196	512	165	---	405	544	273
Mar. 7-----	442	393	300	429	223	---	---	217	391	107	209	200	387
Mar. 8-----	437	496	339	83	257	---	285	229	408	112	301	---	408
Mar. 9-----	447	132	101	104	294	---	112	363	310	81	331	261	458
Mar. 10-----	415	218	111	97	132	334	413	425	469	230	247	452	409
Mar. 11-----	433	120	198	289	435	190	234	524	513	241	365	545	361
Average-------	374	328	174	258	242	---	250	407	354	144	325	428	357
Mar. 12-----	332	415	225	161	492	483	185	637	549	129	467	570	464
Mar. 13-----	153	579	61	173	476	584	157	(622)	601	233	547	497	(457)
Mar. 14-----	337	347	63	373	459	557	85	(261)	591	268	574	148	432
Mar. 15-----	225	77	98	492	283	553	164	617	590	152	602	575	424
Mar. 16-----	436	428	172	259	434	561	344	(542)	533	199	577	575	256
Mar. 17-----	449	598	441	526	451	504	518	(623)	385	---	547	569	385
Mar. 18-----	485	597	446	300	450	550	522	(631)	579	---	470	270	421
Average-------	345	434	215	326	435	542	282	(562)	547	196	540	458	(405)
Mar. 19-----	---	589	41	386	155	557	58	(224)	549	308	498	181	439
Mar. 20-----	481	488	180	40	373	405	421	478	324	308	505	429	267
Mar. 21-----	499	300	80	399	127	521	253	(603)	520	310	198	(544)	454
Mar. 22-----	492	493	135	472	308	552	129	661	394	319	535	313	227
Mar. 23-----	399	346	218	438	159	444	196	539	461	328	357	573	487
Mar. 24-----	186	591	477	466	93	35	451	676	626	336	602	393	503
Mar. 25-----	282	493	423	276	186	383	487	671	534	356	560	320	486
Average-------	390	471	222	354	200	414	285	(550)	487	323	465	(393)	409
Mar. 26-----	---	291	459	573	106	579	566	674	544	271	(606)	568	(476)
Mar. 27-----	352	614	488	563	405	570	551	555	589	246	604	563	473
Mar. 28-----	338	620	446	439	565	538	444	680	318	288	268	533	275
Mar. 29-----	431	479	444	86	570	453	407	553	598	332	(629)	350	498
Mar. 30-----	433	337	61	500	553	248	480	692	642	200	642	34	441
Mar. 31-----	124	213	207	330	466	464	551	683	627	262	628	607	506
Apr. 1-----	127	569	147	319	161	667	363	690	604	225	575	642	467
Average-------	301	446	322	401	404	503	480	647	560	261	(564)	471	(448)

1962	Gainesville, Fla.	Glasgow, Mont.	Grand Junction, Colo.	Great Falls, Mont.	Greensboro, N. C.	Griffin, Ga.	Cape Hatteras, N.C.	Hilo, Hawaii	Indianapolis, Ind.	Ithaca, N. Y.	Lake Charles, La.	Lander, Wyo	Laramie, Wyo.
Mar. 5-----	553	346	385	291	122	460	79	484	136	148	532	287	368
Mar. 6-----	569	418	404	380	185	381	183	449	160	67	494	392	432
Mar. 7-----	573	417	353	384	493	584	116	487	288	431	303	116	181
Mar. 8-----	524	395	391	310	493	335	512	497	152	441	200	166	146
Mar. 9-----	428	187	282	255	83	142	166	391	58	182	343	409	424
Mar. 10-----	250	278	199	335	388	198	254	549	70	327	78	363	434
Mar. 11-----	462	358	399	437	64	77	108	350	95	382	453	478	120
Average-------	480	343	345	342	261	311	203	458	137	283	343	359	387
Mar. 12-----	242	470	393	392	321	620	235	(228)	110	56	---	405	478
Mar. 13-----	572	485	578	438	543	610	544	170	113	157	401	536	534
Mar. 14-----	450	441	579	428	510	402	(492)	382	141	202	33	501	494
Mar. 15-----	78	439	566	365	162	552	191	104	244	192	---	523	516
Mar. 16-----	561	477	524	413	538	638	425	289	258	79	565	523	512
Mar. 17-----	643	520	454	428	588	661	574	515	356	300	504	494	409
Mar. 18-----	634	453	496	328	590	648	570	356	465	417	472	515	500
Average-------	454	469	513	399	465	590	(433)	(292)	241	200	395	500	492
Mar. 19-----	625	372	492	255	218	582	498	341	456	430	261	542	476
Mar. 20-----	427	441	488	269	495	258	514	289	211	116	123	530	524
Mar. 21-----	193	168	354	419	390	623	187	350	28	65	---	513	355
Mar. 22-----	85	453	293	369	199	299	141	434	207	189	164	520	260
Mar. 23-----	387	184	190	341	344	575	450	387	159	518	---	234	337
Mar. 24-----	547	431	600	345	572	636	565	452	365	522	287	527	547
Mar. 25-----	86	352	604	356	396	88	583	487	350	529	566	441	(498)
Average-------	336	343	431	336	373	437	420	391	254	338	280	473	(428)
Mar. 26-----	570	389	581	397	203	284	69	406	515	522	562	460	520
Mar. 27-----	660	633	613	143	586	658	600	525	549	504	565	526	486
Mar. 28-----	600	361	422	364	618	683	---	644	508	524	518	335	197
Mar. 29-----	528	286	471	469	517	585	(612)	529	439	365	306	409	475
Mar. 30-----	501	407	653	190	488	270	---	374	259	266	335	565	547
Mar. 31-----	283	500	641	405	137	153	454	636	353	42	168	522	325
Apr. 1-----	289	544	630	496	494	701	238	636	148	49	599	575	563
Average-------	490	446	573	352	435	476	(395)	536	396	325	436	485	445

**Note.--Langley is the unit used to denote one gram calorie per square centimeter.
Values in parentheses are interpolated.**

SOLAR RADIATION DATA

Daily totals and weekly averages of solar radiation (direct and diffuse) received on a horizontal surface, tabulated in langleys.

1962	Las Vegas, Nev.	Lemont, Ill.	Little Rock, Ark.	Los Angeles, Calif.	Los Angeles, Calif. (Urban)	Madison, Wis.	Manhattan, Kans.	Matanuska, Alaska	Mauna Loa Obs., Hawaii	Medford, Oreg.	Miami, Fla.	Midland, Tex.	Nashville, Tenn.	Newport, R. I.	North Omaha, Nebr.	Oak Ridge, Tenn.	Oklahoma City, Okla.	Page, Ariz.	Phoenix, Ariz.	Prosser, Wash.	Pullman, Wash.	Rapid City, S. Dak.	Riverside, Calif.	St. Cloud, Minn.	Salt Lake City,Utah	San Antonio, Tex.	Santa Maria, Calif.	S. Ste. Marie, Mich.	Sayville, N. Y.	Seattle, Wash.	Seattle-Tacoma,Wash.	Shreveport, La	Spokane, Wash.	State College, Pa.	Stillwater, Okla.	Tampa, Fla.	Tucson, Ariz.	Washington, D. C. (Obs & Test Dev Ctr.)
Mar. 5-----	241	235	513	(185)	205	440	492	60	294	143	442	529	210	136	498	259	536	287	378	---	---	418	170	468	308	524	349	208	114	129	135	495	193	160	461	493	516	80
Mar. 6-----	367	175	585	343	200	255	454	207	---	368	592	428	150	77	442	147	488	432	450	---	220	392	155	333	338	356	359	352	55	260	(237)	(468)	331	114	447	463	333	95
Mar. 7-----	538	148	495	535	476	262	364	187	665	179	599	234	74	251	361	313	310	---	109	---	266	306	474	254	145	197	582	387	279	299	316	260	155	474	305	541	166	563
Mar. 8-----	535	102	34	504	491	145	75	186	410	362	560	210	62	412	169	185	233	---	460	---	128	416	533	212	---	228	553	422	393	56	247	74	243	511	201	562	351	538
Mar. 9-----	429	146	481	412	409	218	106	210	600	261	561	147	142	250	271	49	458	335	447	---	199	397	308	389	375	406	445	414	218	324	270	349	---	140	426	537	458	208
Mar. 10-----	379	78	119	549	493	---	104	259	422	135	562	512	79	428	111	165	520	278	520	---	318	254	425	165	350	514	532	449	364	393	181	351	310	256	409	545	576	280
Mar. 11-----	526	67	552	537	475	---	308	287	384	333	580	545	136	472	98	183	530	533	558	---	349	424	539	135	515	558	548	206	421	228	310	467	259	265	238	483	465	254
Average-------	431	136	397	(438)	393	264	272	200	462	254	557	372	122	289	278	183	439	373	418	---	247	372	372	279	338	398	481	348	263	241	(242)	(352)	248	274	355	518	409	288
Mar. 12-----	559	23	540	542	528	---	176	84	447	478	477	550	438	61	235	462	617	450	572	---	249	413	594	223	508	553	576	84	41	393	405	524	483	278	468	213	606	469
Mar. 13-----	593	144	564	561	534	222	324	348	264	481	408	346	183	272	298	152	562	534	598	---	415	499	624	492	575	247	571	169	216	411	419	496	447	250	471	422	629	196
Mar. 14-----	593	221	223	500	506	395	352	210	631	393	469	154	372	285	538	356	353	571	609	---	455	389	586	331	536	97	502	207	325	363	420	51	434	204	367	113	624	409
Mar. 15-----	595	356	561	538	528	349	544	107	596	167	524	544	387	488	547	257	555	568	605	---	458	501	584	454	568	452	388	468	420	348	389	432	422	402	510	13	640	471
Mar. 16-----	428	261	561	380	265	(508)	572	235	610	288	237	534	409	412	550	358	540	436	547	---	479	531	378	481	520	562	523	428	397	260	327	542	401	377	507	398	546	488
Mar. 17-----	558	483	552	495	401	578	474	147	695	484	623	533	462	398	474	514	552	542	616	---	448	387	416	512	479	154	402	433	399	340	332	508	422	444	498	645	636	542
Mar. 18-----	586	372	336	133	193	496	373	171	646	494	572	392	459	514	336	505	407	511	616	---	---	313	275	463	542	93	136	429	459	64	68	416	322	553	321	638	644	549
Average-------	559	266	477	450	422	(425)	402	186	555	398	473	436	387	347	426	372	512	516	595	---	417	433	494	422	533	308	442	317	322	311	337	424	419	358	449	349	618	446
Mar. 19-----	315	132	268	523	281	299	560	186	608	250	510	331	---	479	535	215	437	---	442	---	108	501	237	(417)	553	96	330	145	419	187	131	197	121	340	292	604	576	295
Mar. 20-----	478	173	---	243	134	384	12	330	521	284	591	561	76	487	119	190	308	---	---	---	355	502	240	516	483	401	265	187	340	208	228	64	125	286	212	488	344	380
Mar. 21-----	517	283	594	581	528	380	567	358	572	151	530	520	98	128	547	298	574	458	---	---	193	313	518	549	349	553	620	484	60	116	117	510	---	27	522	392	426	45
Mar. 22-----	549	98	326	364	238	466	282	358	657	331	489	549	272	500	398	179	369	260	---	---	412	414	294	481	463	372	245	512	440	224	236	282	235	408	384	329	636	338
Mar. 23-----	629	99	566	610	583	388	363	366	412	236	274	567	581	515	440	514	563	409	---	---	68	69	621	117	(461)	583	---	---	472	176	152	531	97	489	504	284	479	475
Mar. 24-----	639	375	539	598	599	513	164	375	627	165	424	320	553	493	140	510	172	594	---	---	---	415	630	248	593	592	---	523	483	181	174	341	379	567	60	545	664	518
Mar. 25-----	637	420	247	609	601	492	479	385	692	249	205	576	35	534	---	143	324	587	---	---	---	438	631	143	574	593	---	595	476	284	405	224	238	571	439	90	661	546
Average-------	538	226	424	504	423	418	347	337	584	238	432	489	269	448	363	293	393	462	---	---	227	379	453	(353)	(497)	456	365	408	384	197	206	307	199	384	345	390	541	371
Mar. 26-----	620	458	585	(578)	541	454	466	103	520	426	416	574	---	519	470	103	588	585	---	---	---	485	625	233	495	585	---	447	458	223	236	543	188	521	536	486	666	524
Mar. 27-----	570	476	578	384	529	531	516	199	382	405	664	549	---	170	504	532	588	581	---	---	229	462	577	326	594	580	---	502	229	230	219	538	315	552	545	606	485	567
Mar. 28-----	472	315	526	(112)	103	471	549	206	605	541	615	545	554	342	518	552	572	553	---	---	463	179	192	386	433	535	---	209	512	297	521	525	421	565	431	641	658	593
Mar. 29-----	615	255	137	(425)	142	95	422	255	702	556	(477)	529	546	508	283	503	263	451	---	---	547	350	157	133	608	269	---	141	502	507	529	339	522	525	167	573	578	502
Mar. 30-----	658	420	48	(613)	575	552	436	181	730	542	455	414	67	482	383	166	385	617	---	---	568	487	614	545	623	110	---	231	479	497	531	88	541	358	298	588	657	524
Mar. 31-----	659	472	497	(583)	604	247	497	261	733	542	614	594	82	379	311	127	639	619	---	619	565	444	630	190	617	534	---	489	376	---	526	211	544	45	550	547	685	178
Apr. 1-----	622	347	634	---	569	247	340	75	742	534	442	592	413	62	234	398	646	611	---	573	529	476	602	465	602	613	---	600	72	211	253	592	512	85	587	104	681	138
Average-------	602	392	429	(449)	438	371	461	183	631	506	(526)	543	332	352	386	340	526	574	---	---	484	412	485	325	567	461	---	374	375	328	402	405	435	379	445	506	630	432

Note.--Langley is the unit used to denote one gram calorie per square centimeter.
Values in parentheses are interpolated.

TOTAL OZONE DATA

. The total amount of ozone is expressed in 10^{-3} cm. at STP. These data are provisional values applicable to local noon, and are obtained from measurements with a Dobson ozone spectrophotometer using the sun or zenith sky as a light source (see explanation below).

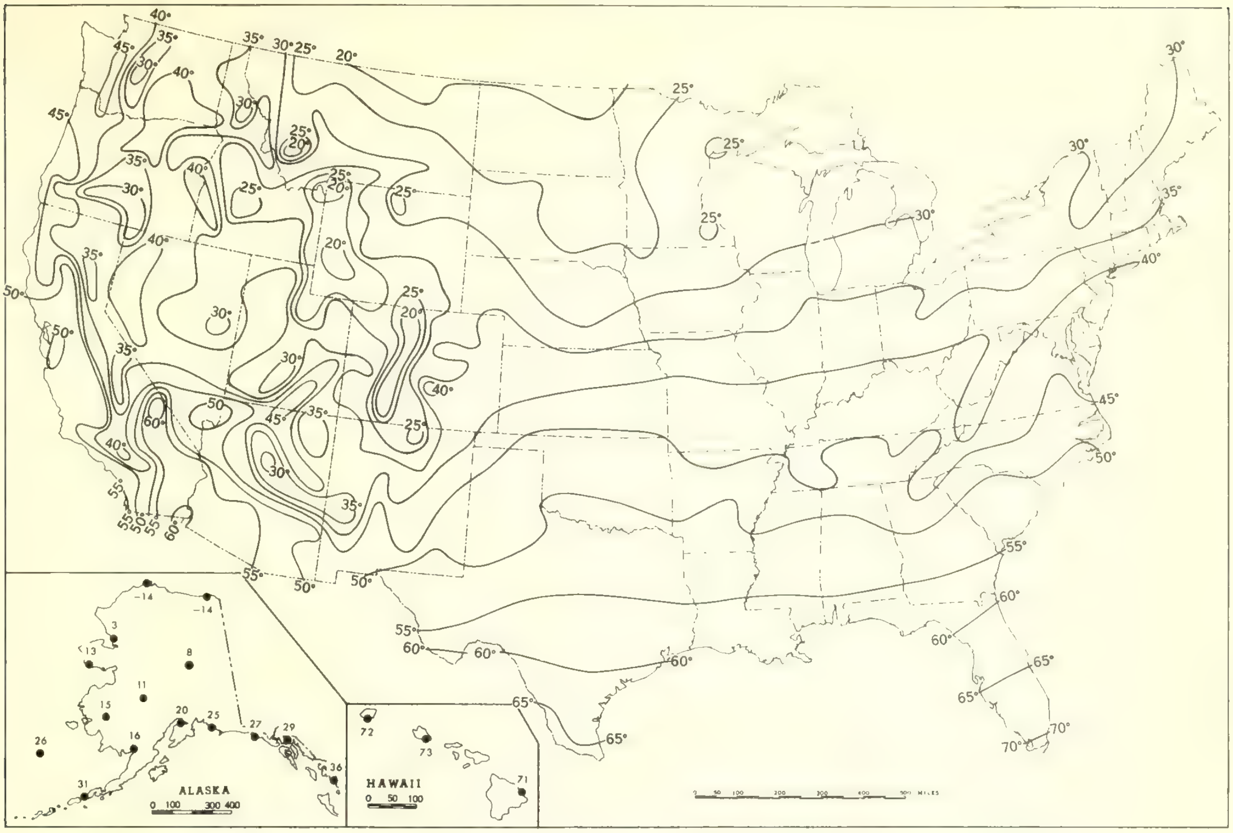
MARCH 1962

Station	Day of month																														
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31
Bismarck, N. Dak.	---	475	---	---	353	---	337	358	---	---	---	---	---	---	---	381	---	443	---	---	402	---	---	---	---	389	354	---	---	---	424
Caribou, Maine	---	---	---	---	---	---	370	416	410	393	340	---	---	---	---	417	434	465	499	438	403	419	437	---	---	---	---	408	---	---	---
Green Bay, Wis.	365	378	439	---	389	367	---	---	335	---	---	---	---	---	---	389	393	375	---	---	---	---	---	389	346	390	380	---	---	---	---
Hallett Station	261	†230	*258	245	*250	*243	*275	*240	*232	*232	*245	*280	*280	*272	*290	*310	†292	*28[illegible]	*300	*290	*260	†240	*240	*293	*295	272	*400	*320	279	*280	*350
Mauna Loa, Hawaii	---	303	---	---	---	310	303	281	289	295	2[illegible]8	---	---	293	297	292	293	295	291	---	293	292	283	291	310	299	304	301	303	299	310
Nashville, Tenn.	---	---	---	---	---	---	---	---	---	---	---	340	---	314	334	411	409	393	380	---	---	---	339	335	---	---	339	336	344	---	---
Sterling Va.	---	356	382	395	*429	---	---	441	---	---	---	*334	---	†360	*349	405	430	432	---	*370	---	*402	431	395	390	*472	443	397	*346	326	*378

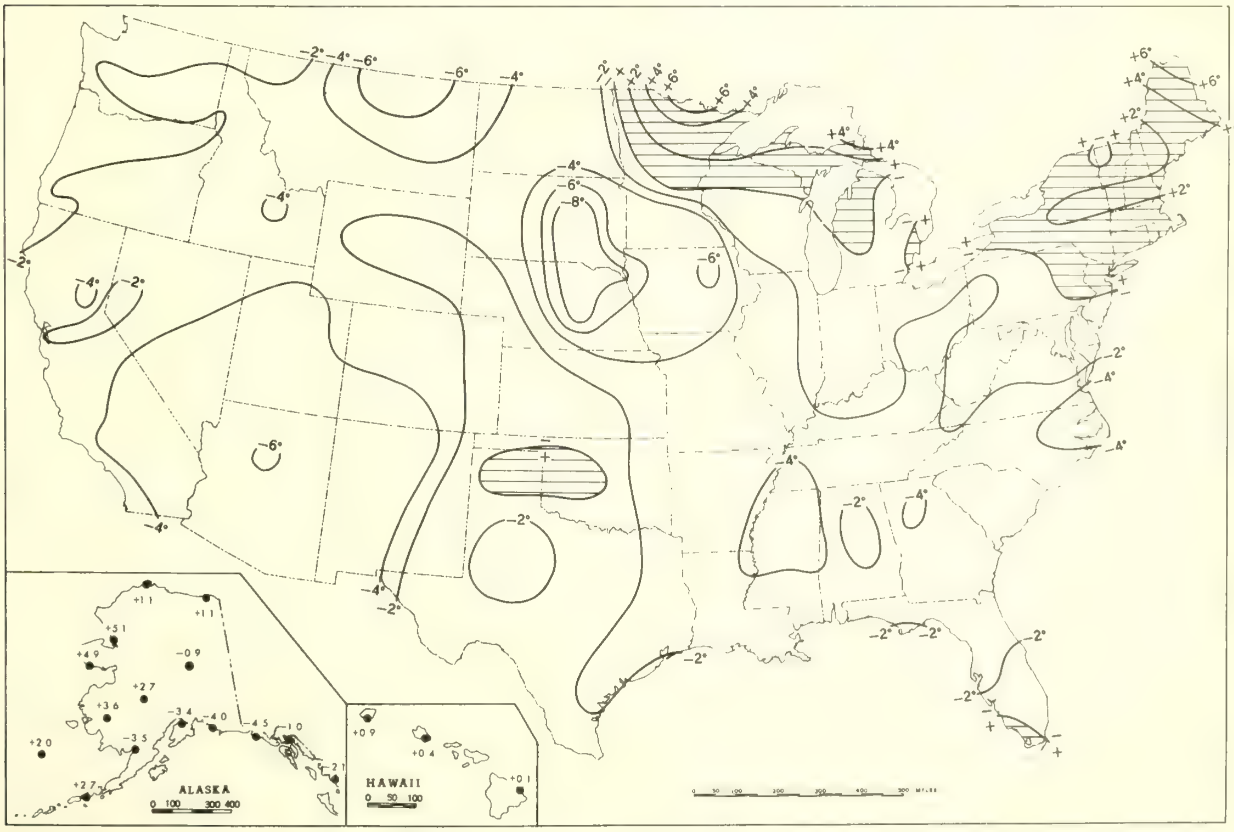
The spectrophotometer measures the total amount of ozone in the atmosphere, i.e., the amount contained in a vertical column of air extending from the ground to the top of the atmosphere in the vicinity of the station. The amount of ozone in this column is expressed in terms of thickness of a layer it would occupy at standard temperature and pressure.

The standard method of measurement is that on direct sun using A(3055Å and 3254Å) and D(3176Å and 3398Å) wavelength pairs. Observations made on the clear zenith sky are slightly less accurate, and are marked with a dagger (†). Observations made on zenith cloud are least reliable, and are marked with an asterisk (*). A detailed description of the spectrophotometer and observational procedures may be found in the "Observers' Handbook For the Ozone Spectrophotometer", Annals of the International Geophysical Year, Volume V, Pergaman Press, 1957.

Chart I. A. Average Temperature (°F.) at Surface, March 1962.



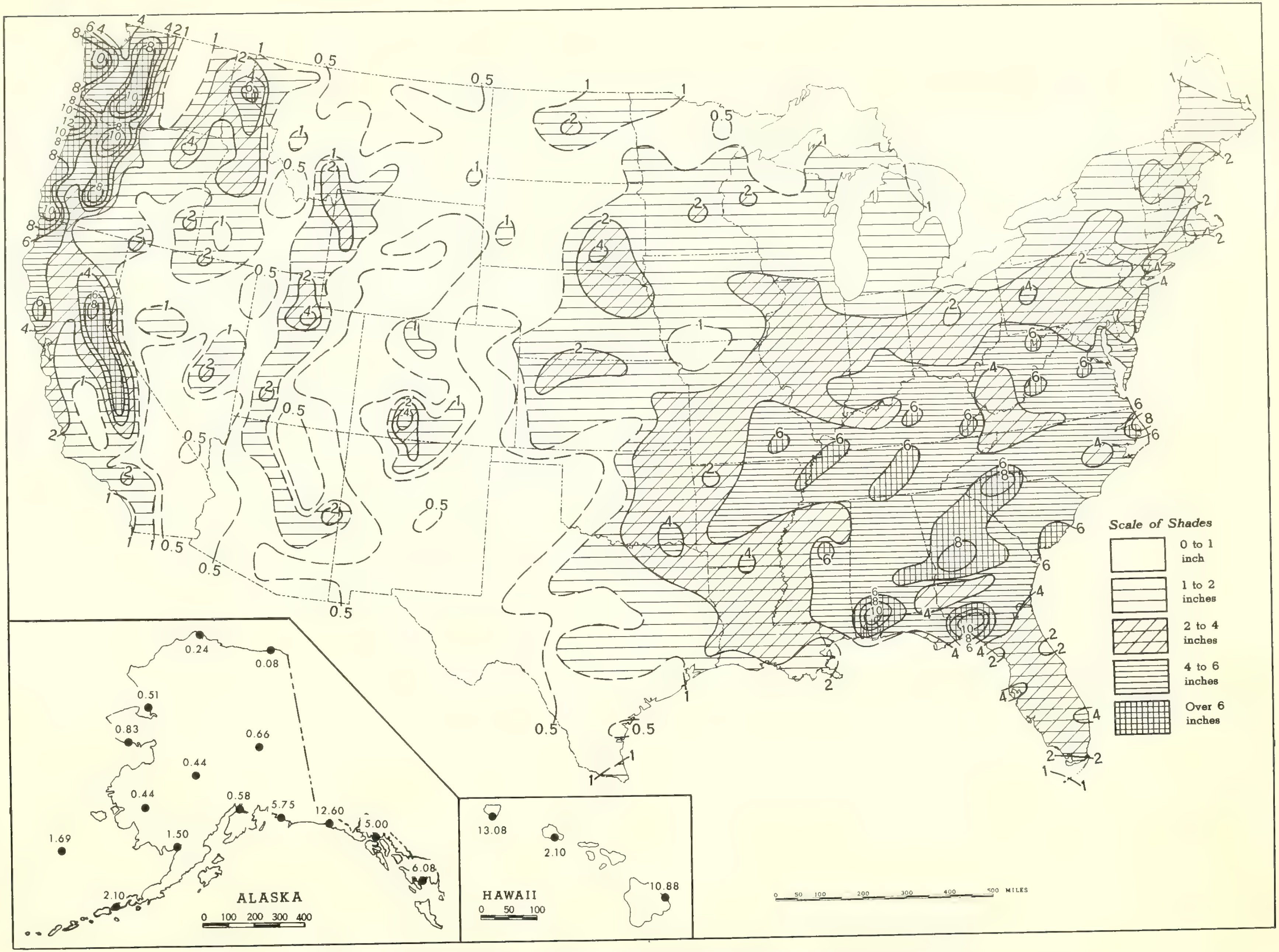
B. Departure of Average Temperature from Normal (°F.), March 1962.



A. Based on reports from over 870 Weather Bureau and cooperative stations. The monthly average is half the sum of the monthly average maximum and monthly average minimum, which are the average of the daily maxima and daily minima, respectively.

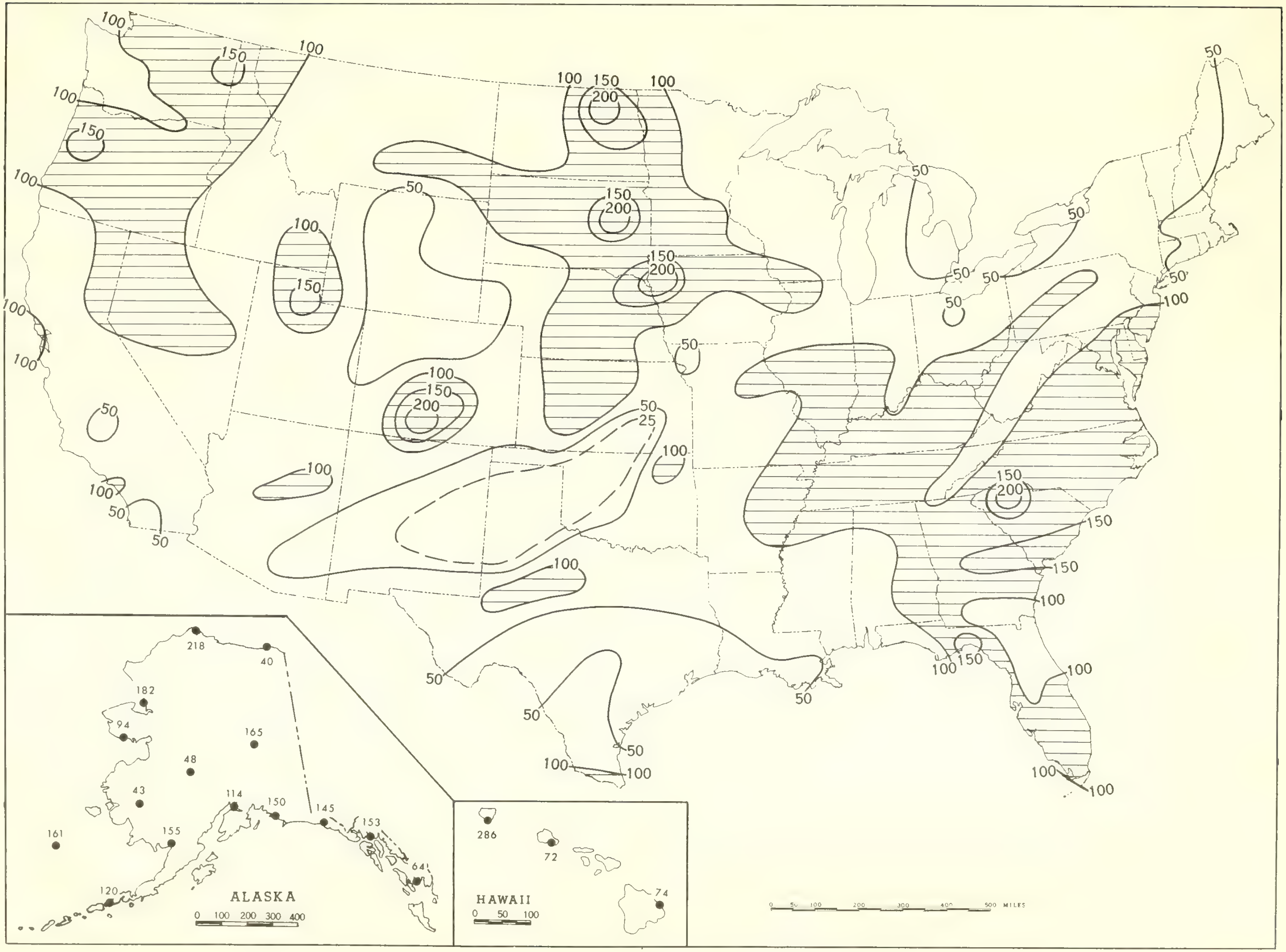
B. Departures from normal are based on the 30-yr. normals (1931-60) for first-order Weather Bureau stations.

Chart II. Total Precipitation (Inches), March 1962.



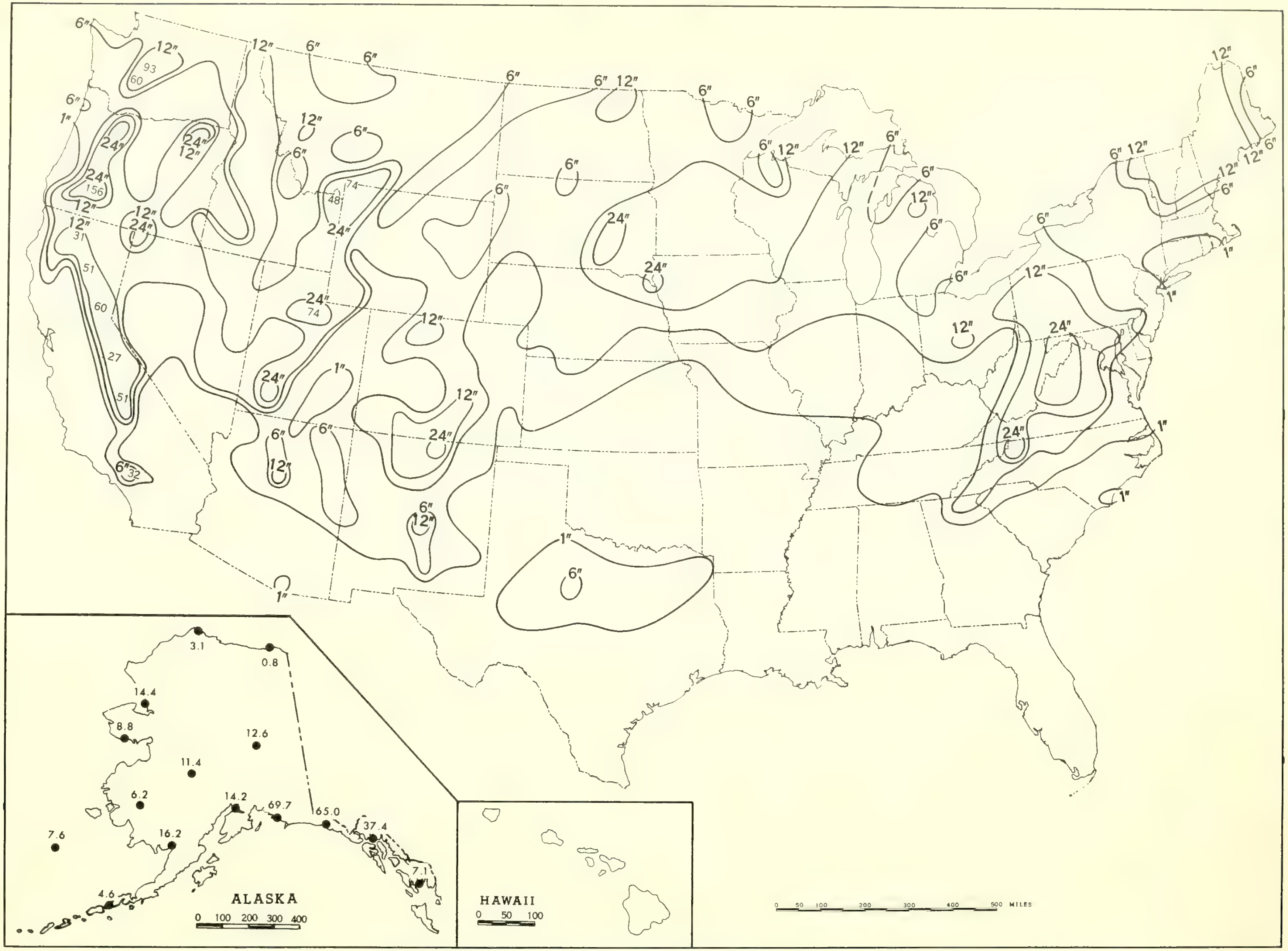
Based on daily precipitation records at about 870 Weather Bureau and cooperative stations.

Chart III. Percentage of Normal Precipitation, March 1962.



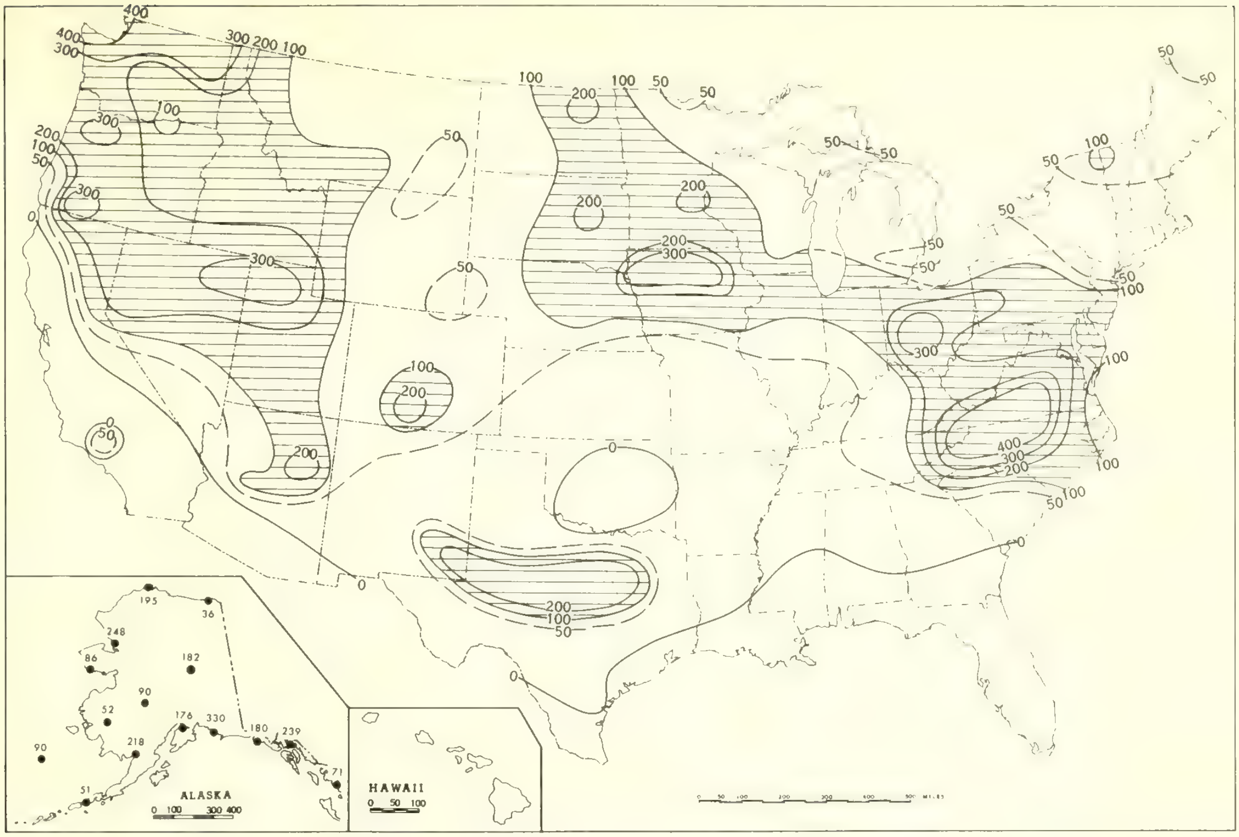
Normal monthly precipitation amounts are computed from the records for 1931-60 for first-order Weather Bureau stations.

Chart IV. Total Snowfall (Inches), March 1962.

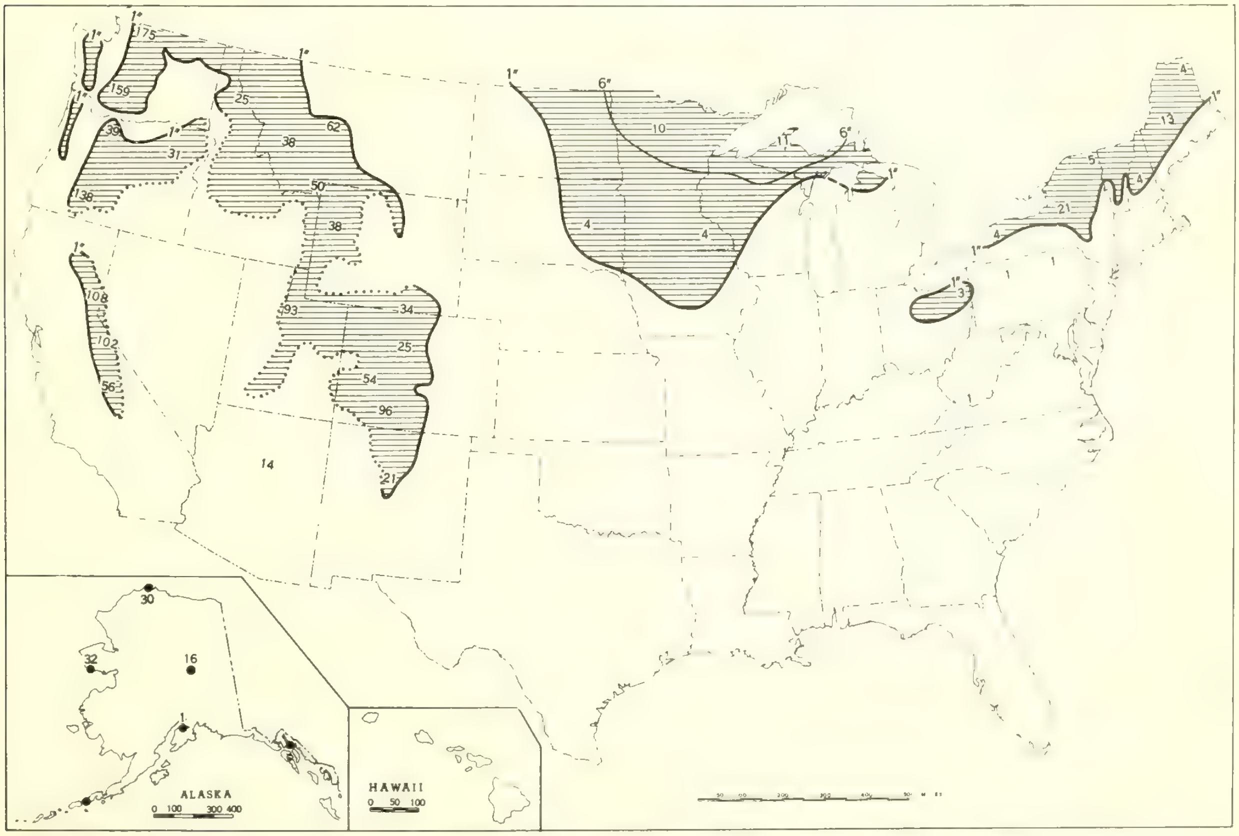


This is the total of unmelted snowfall recorded during the month at Weather Bureau and cooperative stations. This chart and Chart V are published only for the months of November through April although of course there is some snow at higher elevations, particularly in the far West, earlier and later in the year.

Chart V. A. Percentage of Mean Monthly Snowfall, March 1962.

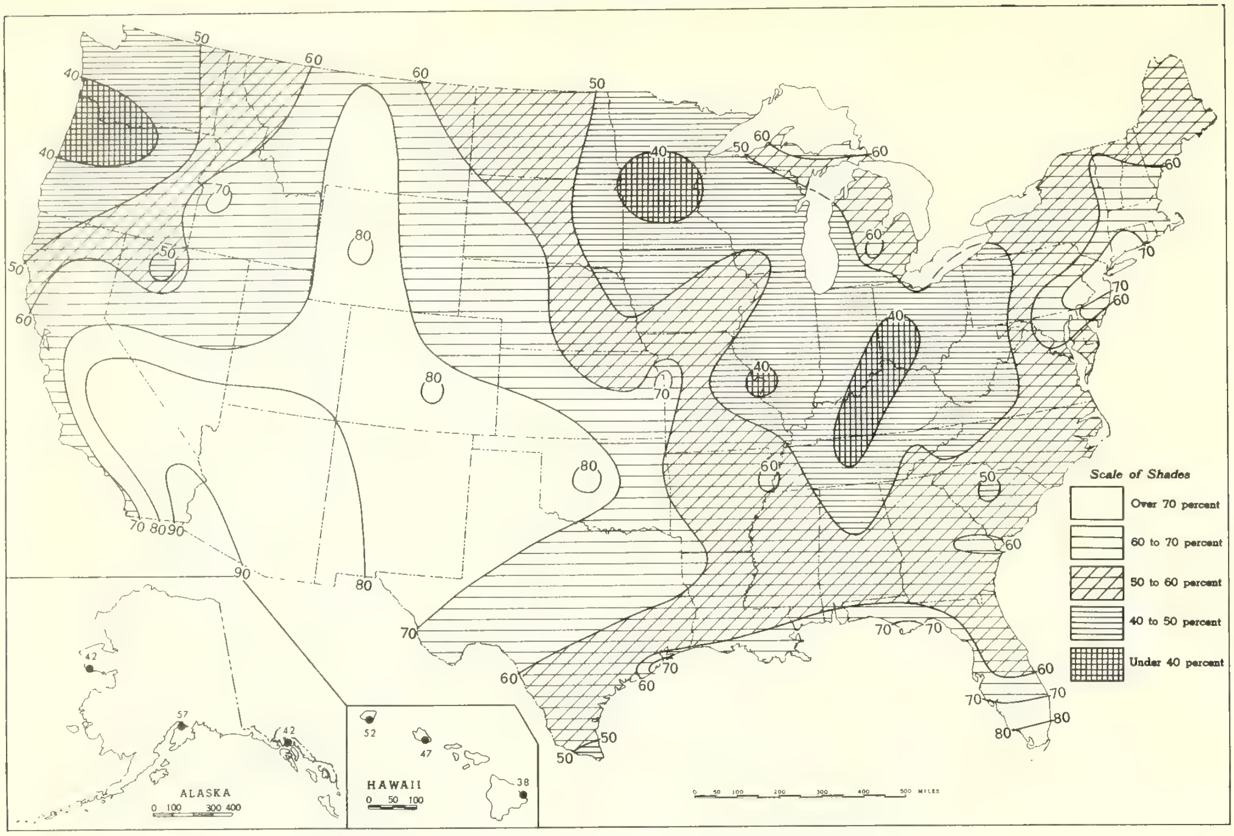


B. Depth of Snow on Ground (Inches), 7:00 a. m. E. S. T., April 2, 1962.

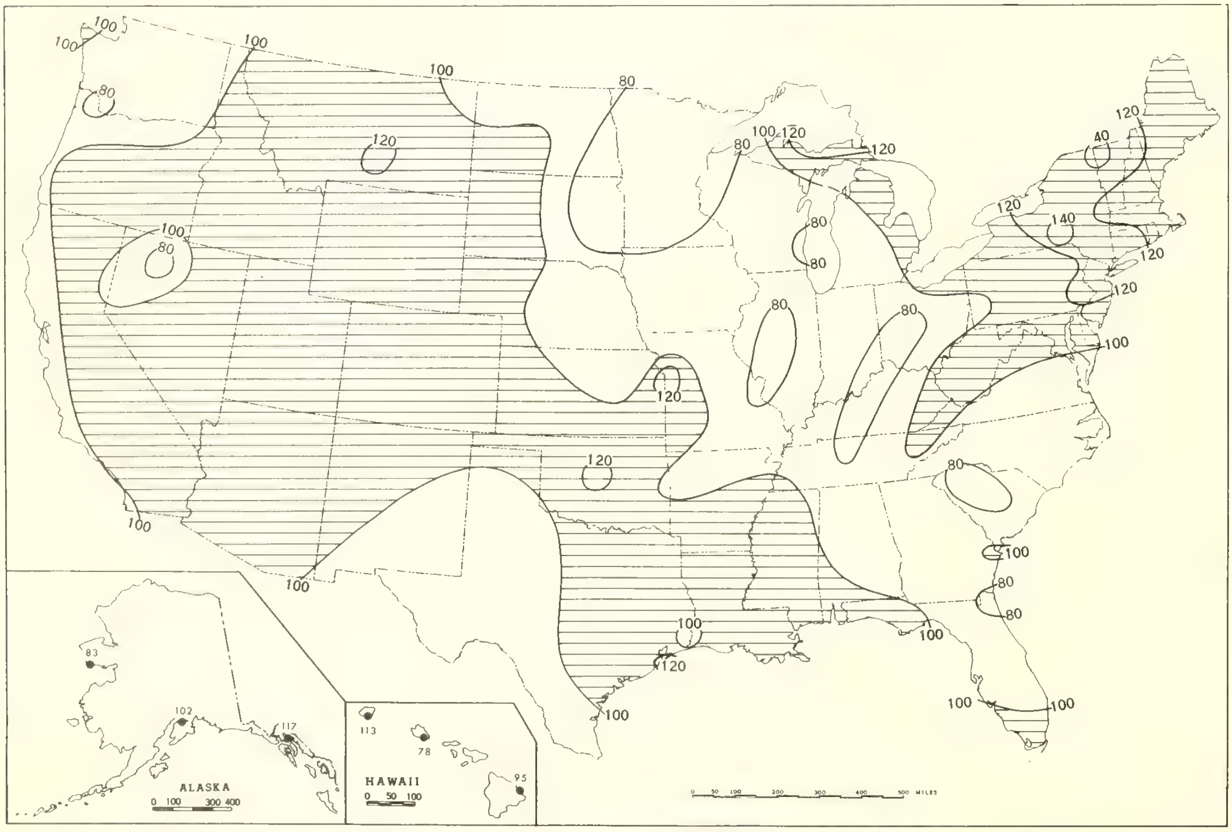


A. Amount of mean monthly snowfall is computed for Weather Bureau stations having at least 10 years of record.
B. Shows depth currently on ground at 7:00 a. m. E.S.T., of the Monday nearest the end of the month.
It is based on reports from Weather Bureau and cooperative stations.

Chart VI. A. Percentage of Possible Sunshine, March 1962.

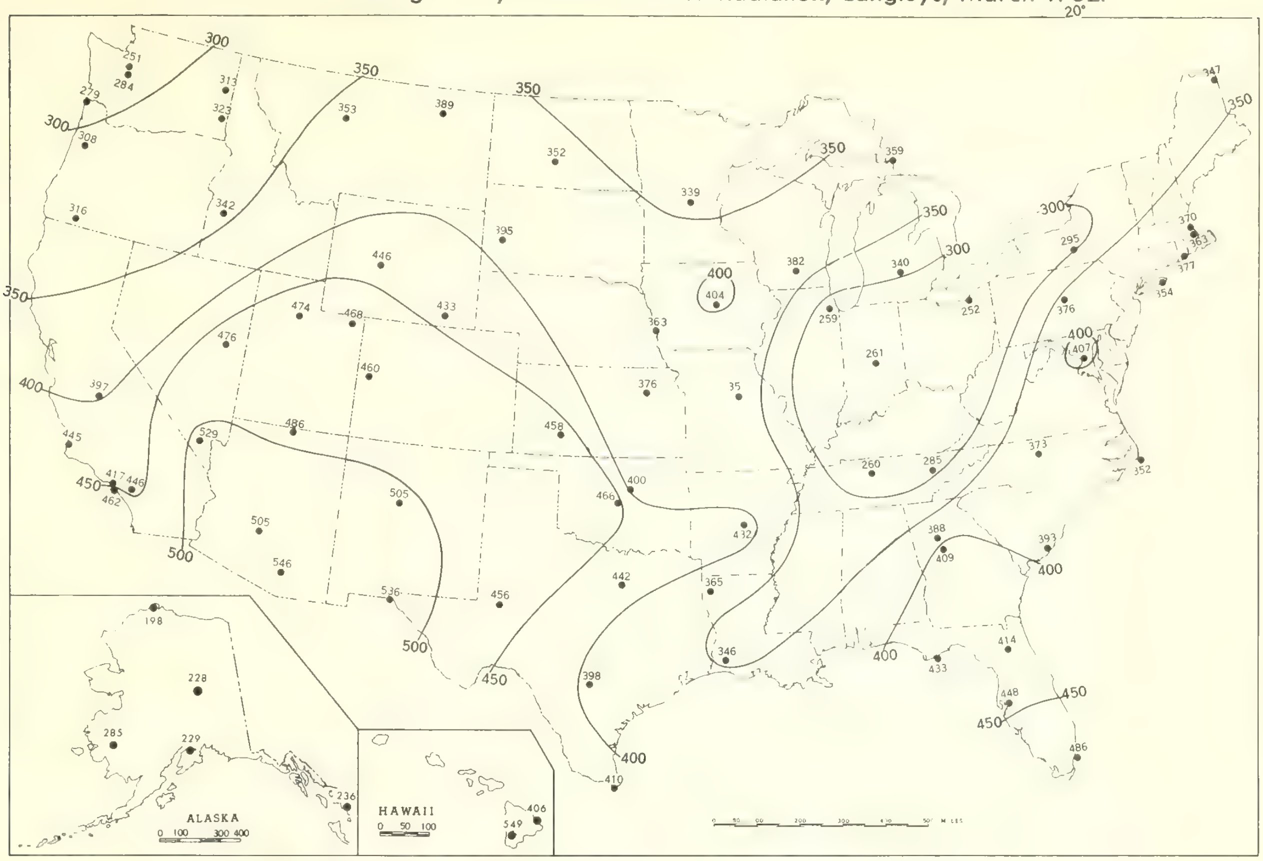


B. Percentage of Mean Monthly Sunshine, March 1962.

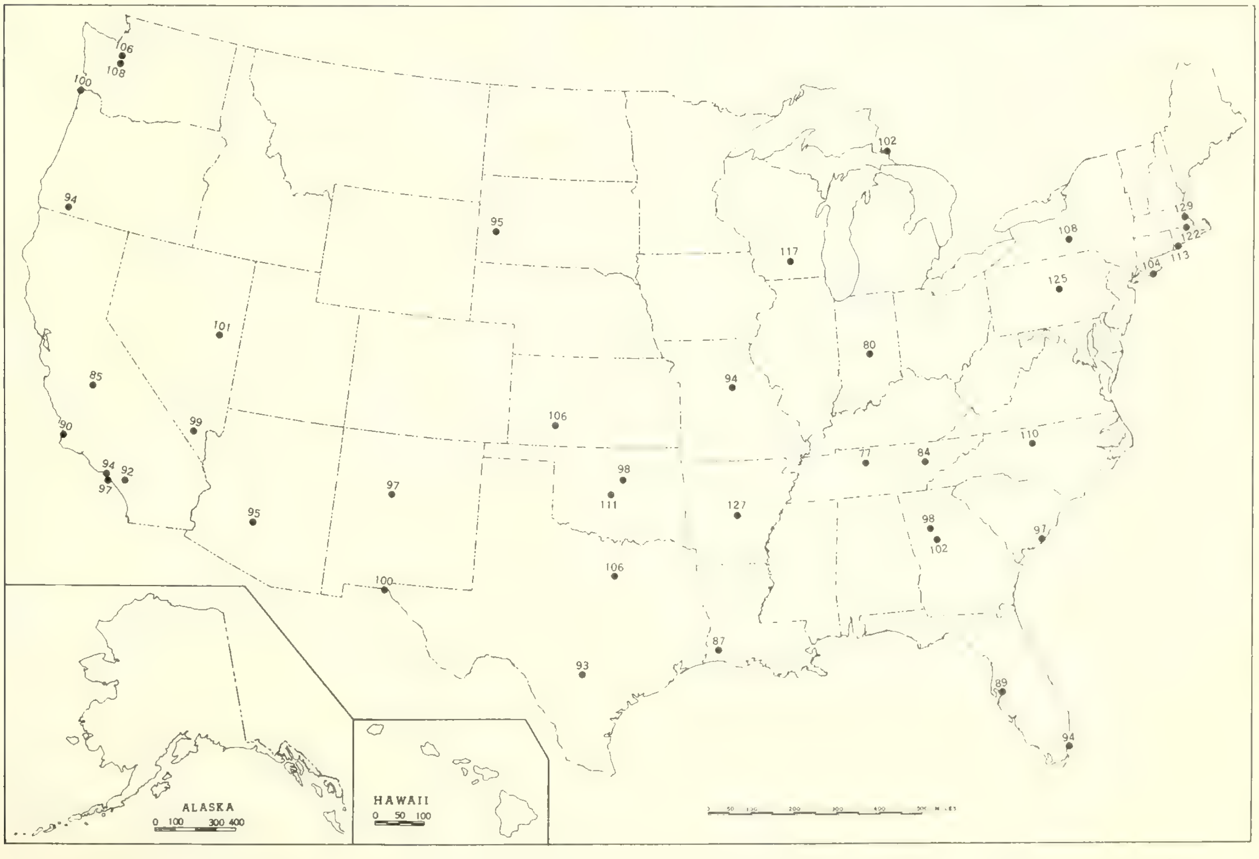


A. Computed from total number of hours of observed sunshine in relation to total number of possible hours of sunshine during month. B. Means are computed for stations having at least 10 years of record.

Chart VII. A. Average Daily Values of Solar Radiation, Langleys, March 1962.



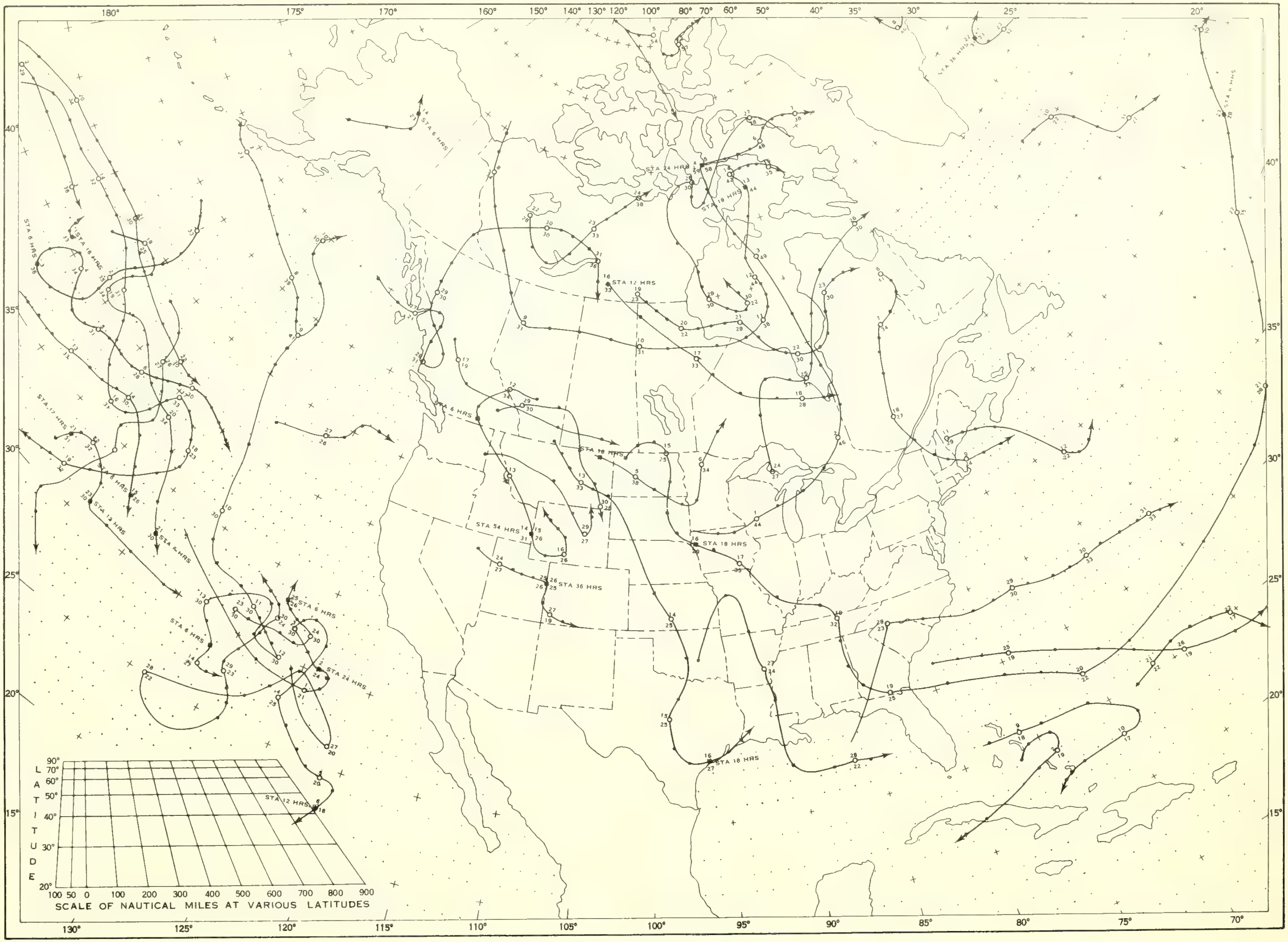
B. Percentage of Mean Daily Solar Radiation, March 1962.



A. Mean daily solar radiation, direct + diffuse, received on a horizontal surface in langleys (1 langley = 1 gm. cal. cm. $^{-2}$) and recorded in International Pyrheliometer Scale of 1956.

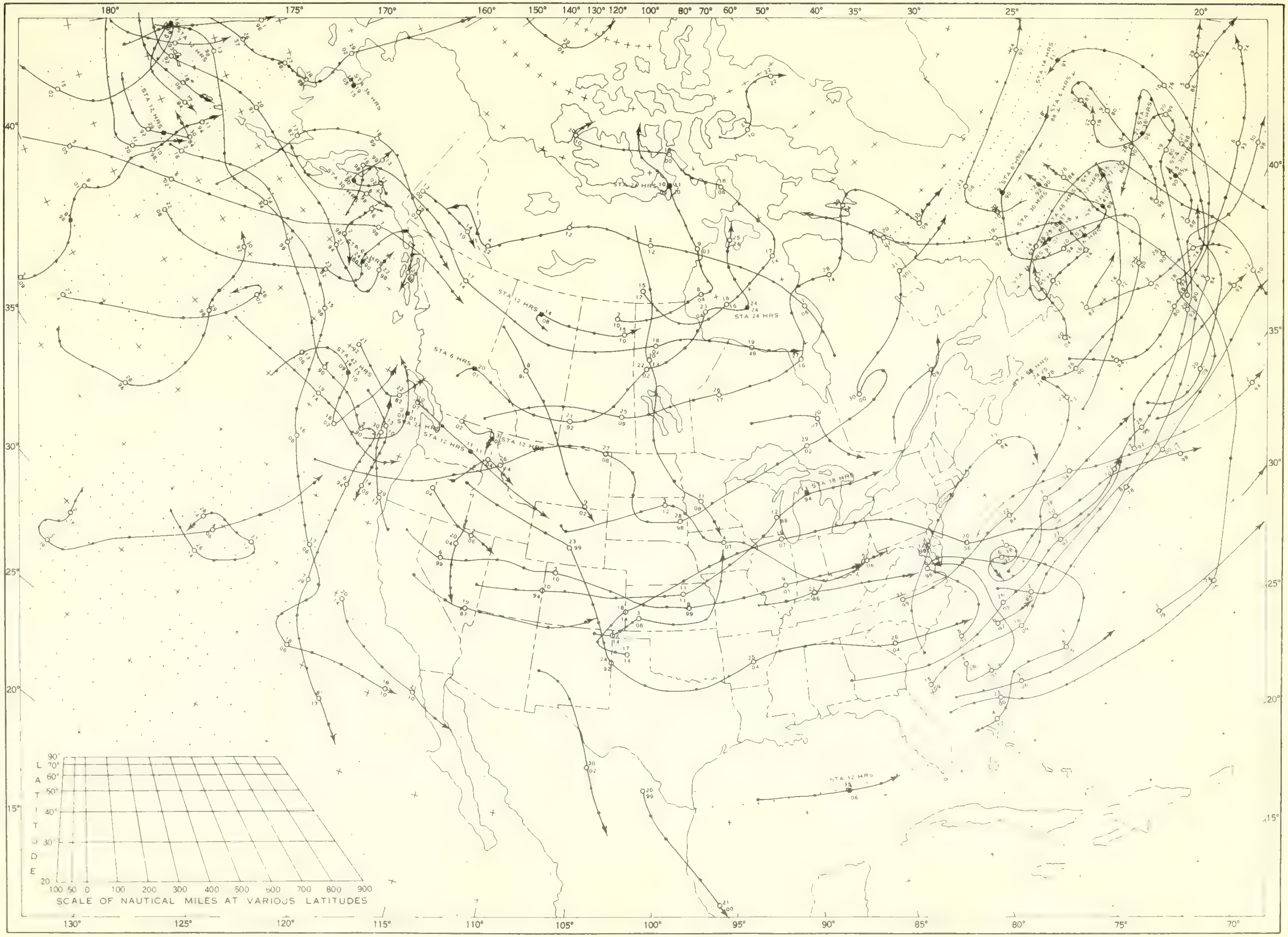
B. Percentage of the mean based on the period 1953-57, and corrected to the International Pyrheliometer Scale of 1956.

Chart VIII. Tracks of Centers of Anticyclones at Sea Level, March 1962.



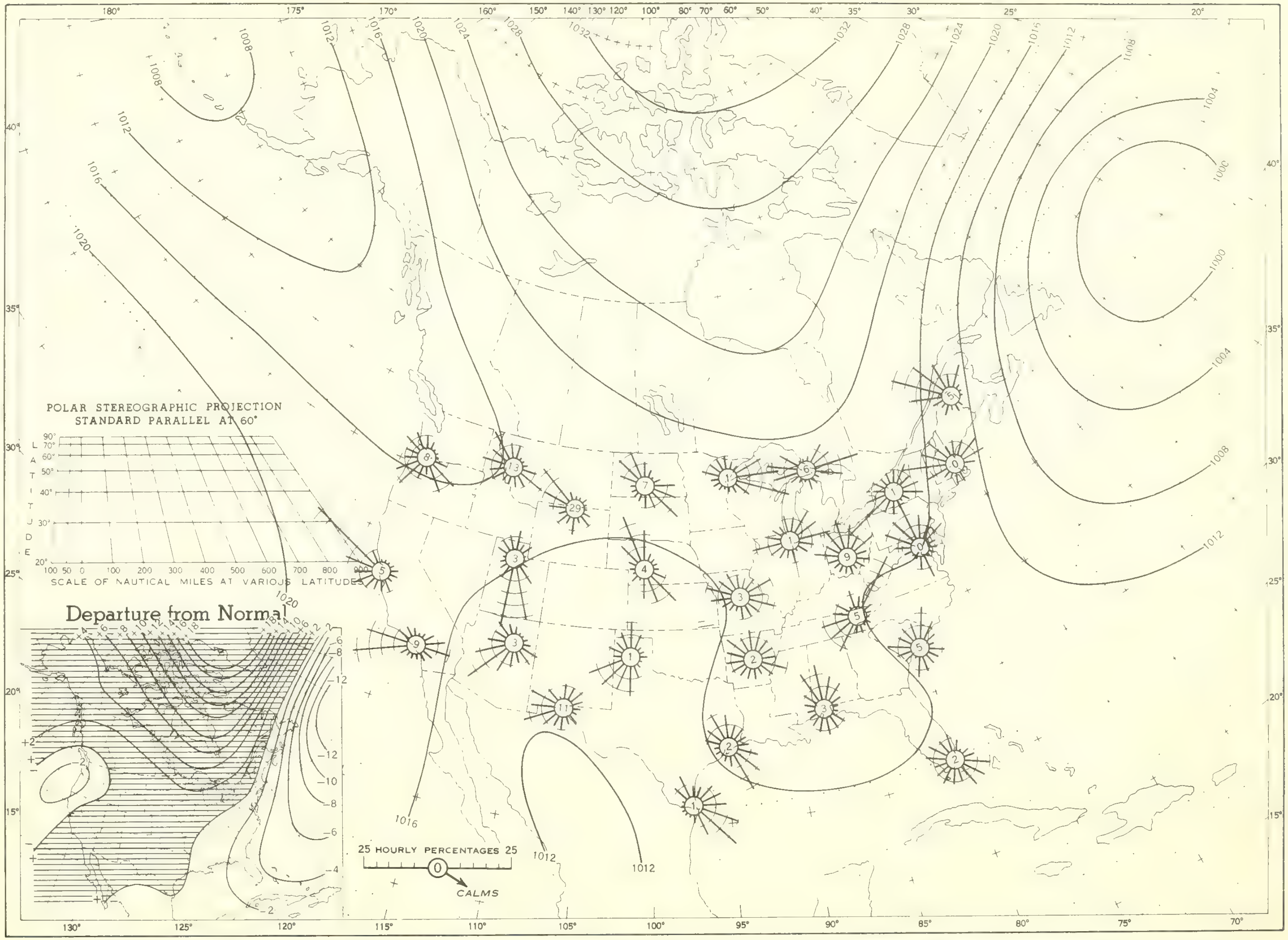
Circle indicates position of center at 7:00 a. m. E. S. T. Figure above circle indicates date, figure below, pressure to nearest millibar. Dots indicate intervening 6-hourly positions. Squares indicate position of stationary center for period shown. Dashed line in track indicates reformation at new position. Only those centers which could be identified for 24 hours or more are included.

Chart IX. Tracks of Centers of Cyclones at Sea Level, March 1962.



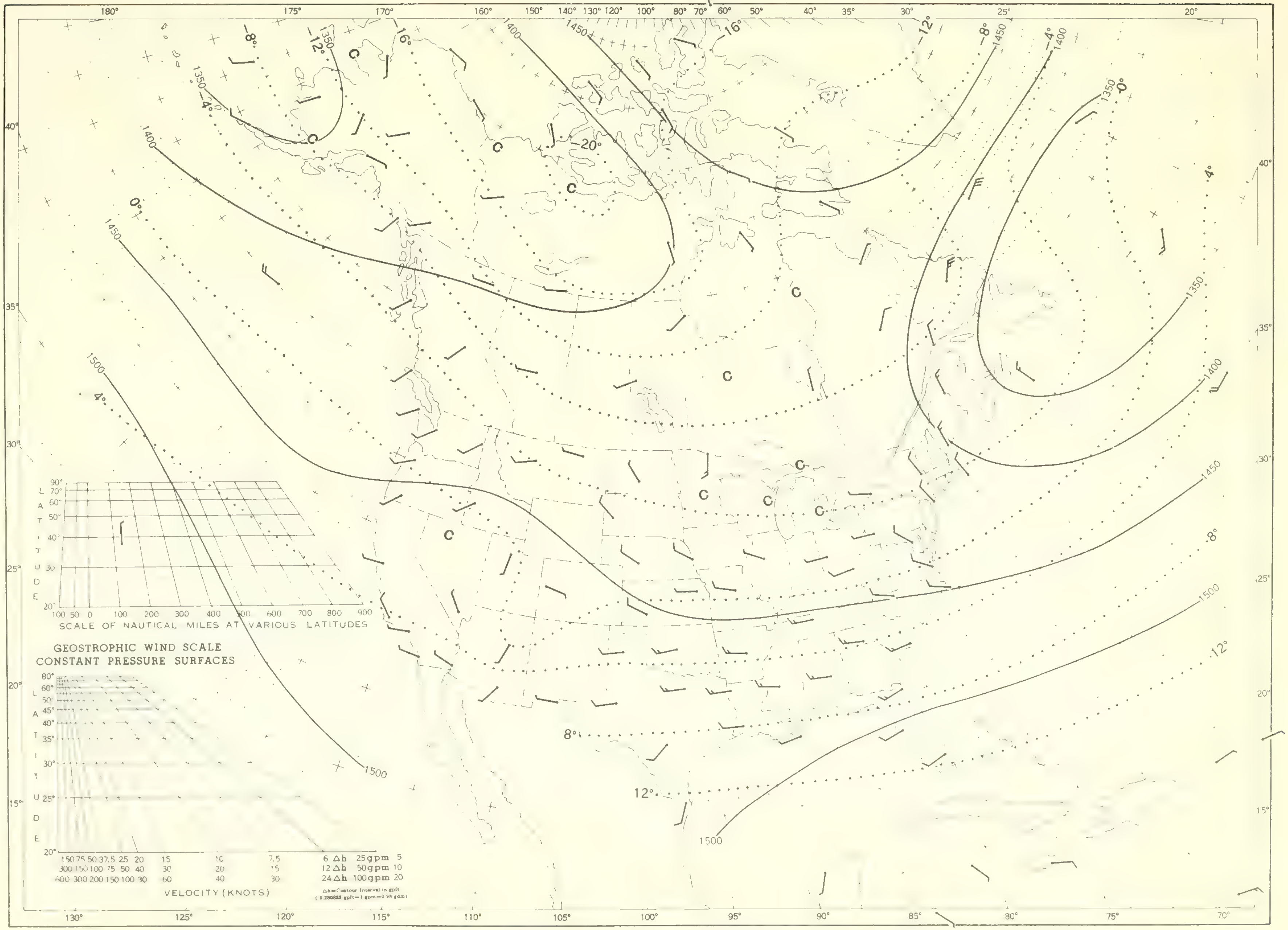
Circle indicates position of center at 7:00 a. m. E. S. T. See Chart VIII for explanation of symbols.

Chart X. Average Sea Level Pressure (mb.) and Surface Windroses, March 1962. Inset: Departure of Average Pressure (mb.) from Normal, March 1962.



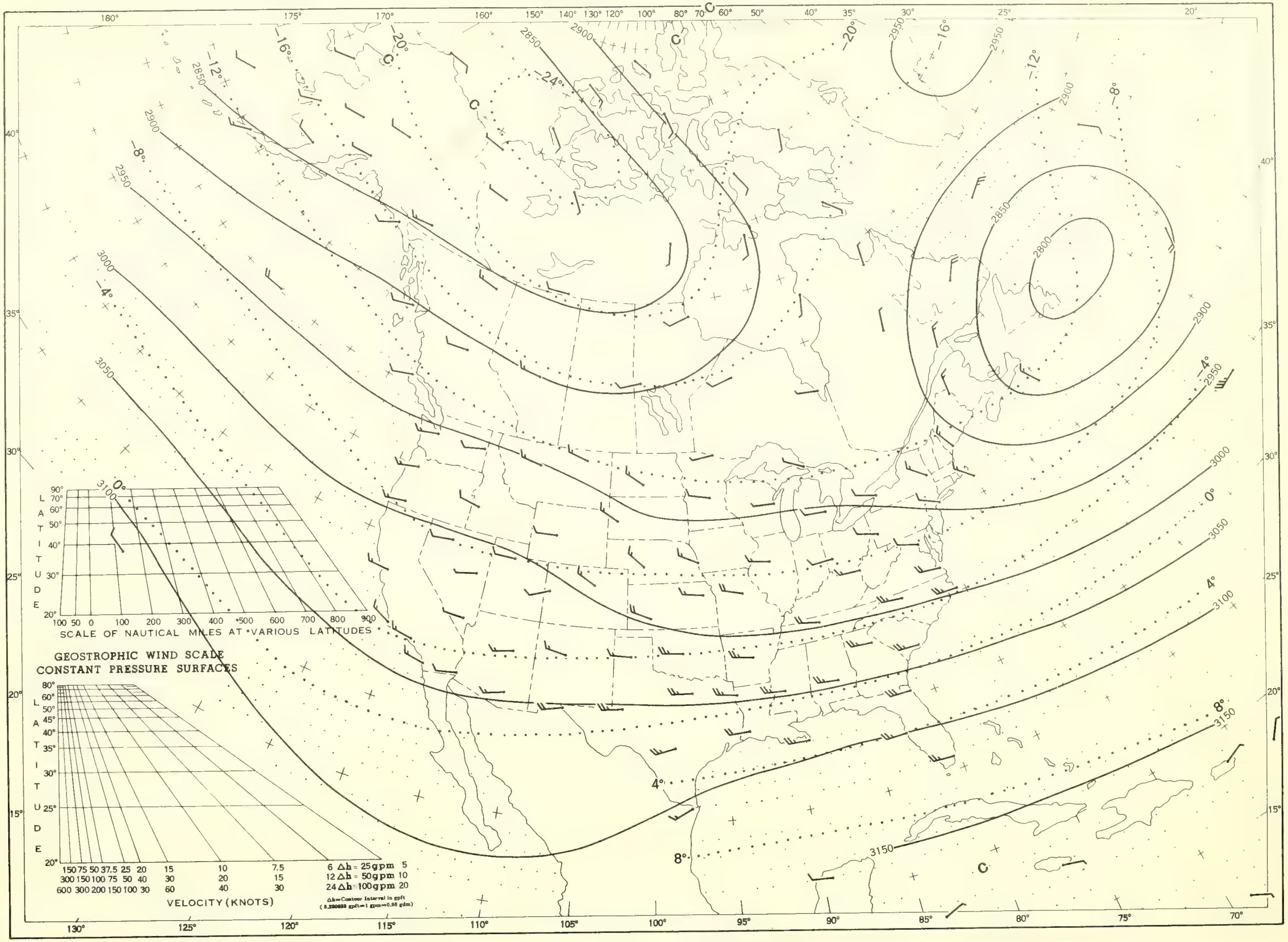
Average sea level pressures are obtained from the averages of the 7:00 a. m. and 7:00 p. m. E. S. T. readings. Windroses show percentage of time wind blew from 16 compass points or was calm during the month. Pressure normals are computed for stations having at least 10 years of record and for 10° intersections in a diamond grid based on readings from the Historical Weather Maps (1899-1939) for the 20 years of most complete data coverage prior to 1940.

Chart XI. 850-mb. Surface, 1200 GMT, March 1962. Average Height and Temperature, and Resultant Winds.



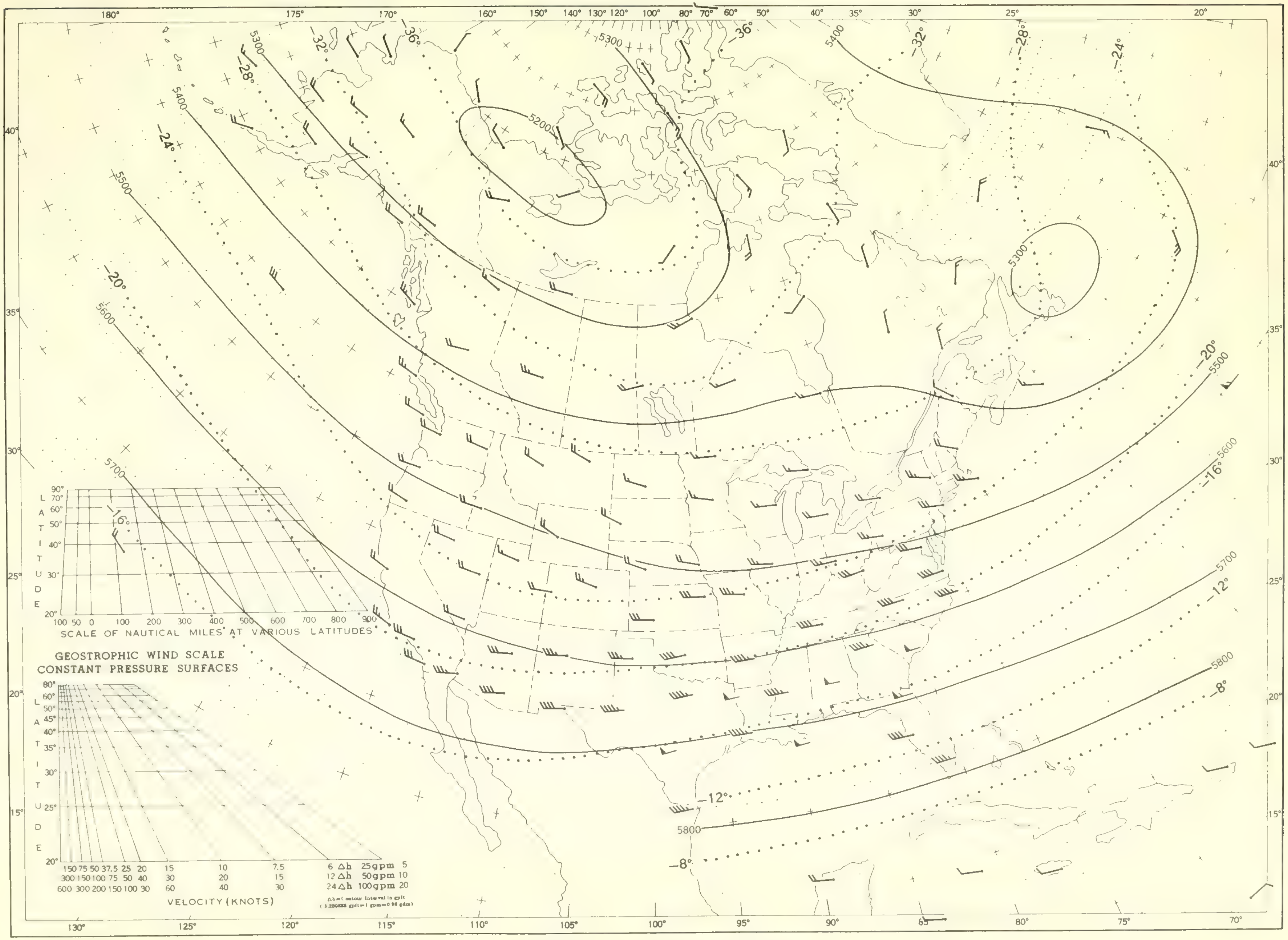
Height in geopotential meters (1 g.p.m. = 0.98 dynamic meters). Temperature in °C. Wind speed in knots; flag represents 50 knots, full feather 10 knots, and half feather 5 knots. All wind data are based on rawin observations.

Chart XII. 700-mb. Surface, 1200 GMT, March 1962. Average Height and Temperature, and Resultant Winds.



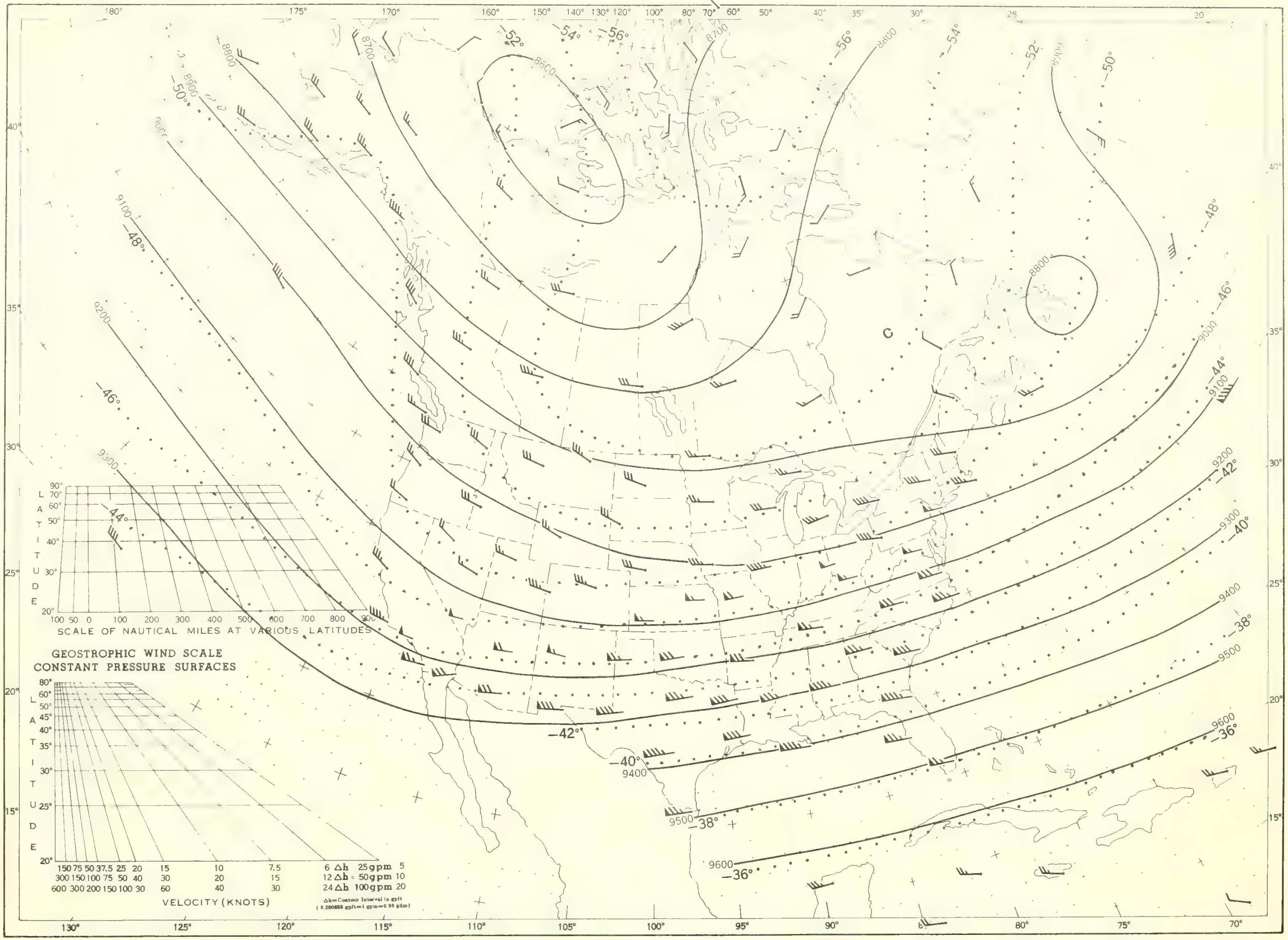
See Chart XI for explanation of map.

Chart XIII. 500-mb. Surface, 1200 GMT, March 1962. Average Height and Temperature, and Resultant Winds.



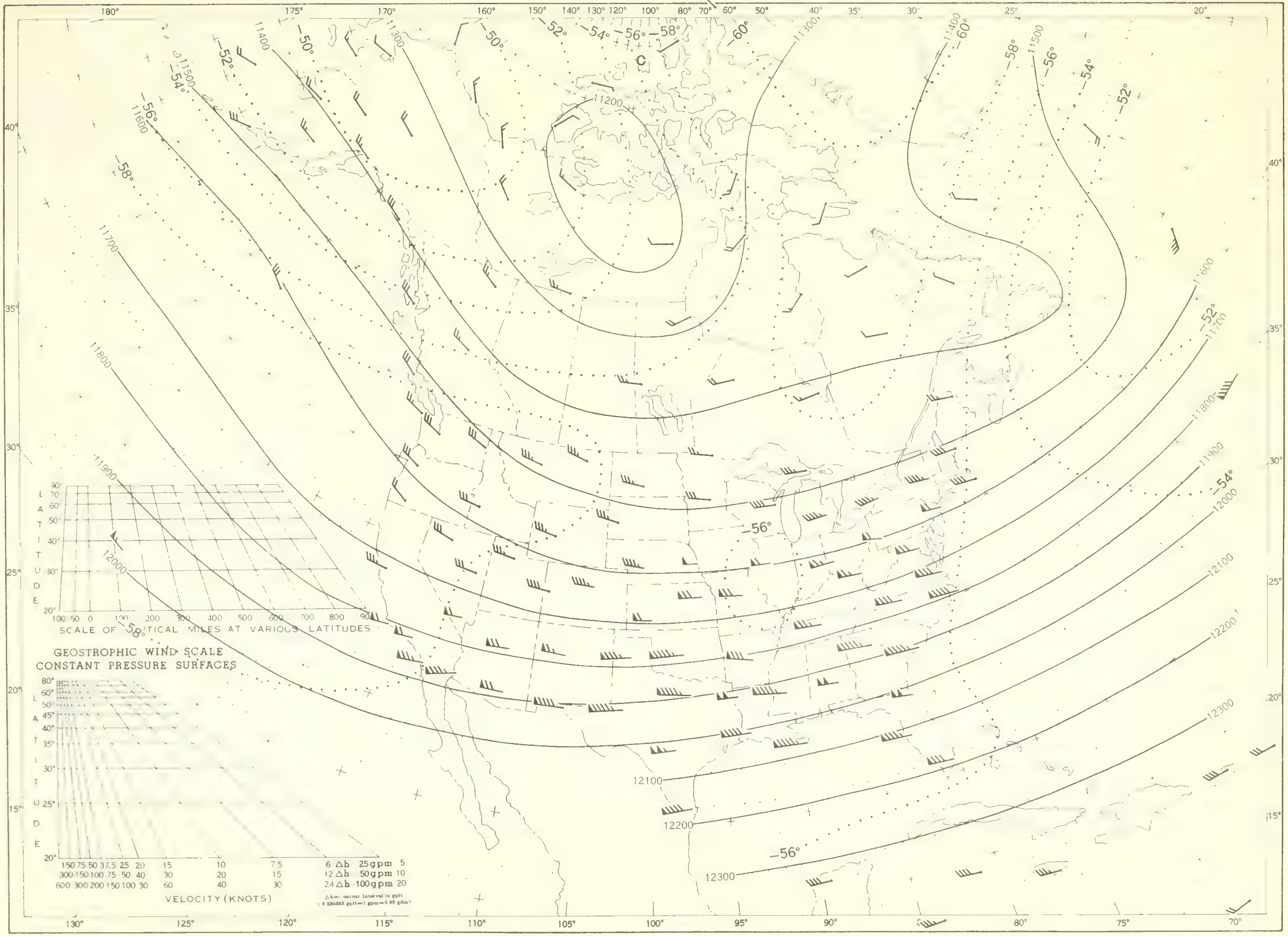
See Chart XI for explanation of map.

Chart XIV. 300-mb. Surface, 1200 GMT, March 1962. Average Height and Temperature, and Resultant Winds



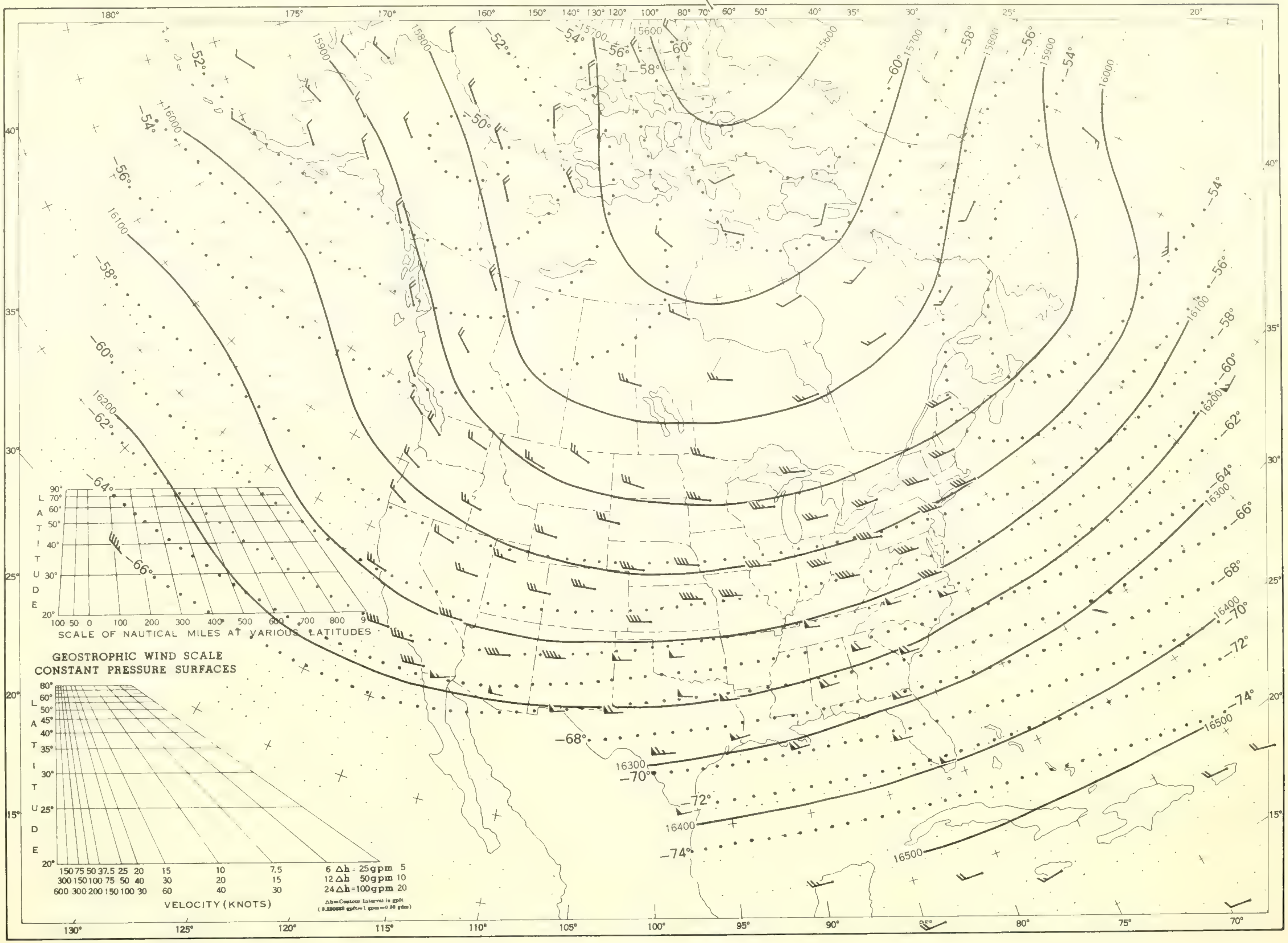
See Chart XI for explanation of map.

Chart XV. 200-mb. Surface, 1200 GMT, March 1962. Average Height and Temperature, and Resultant Winds.



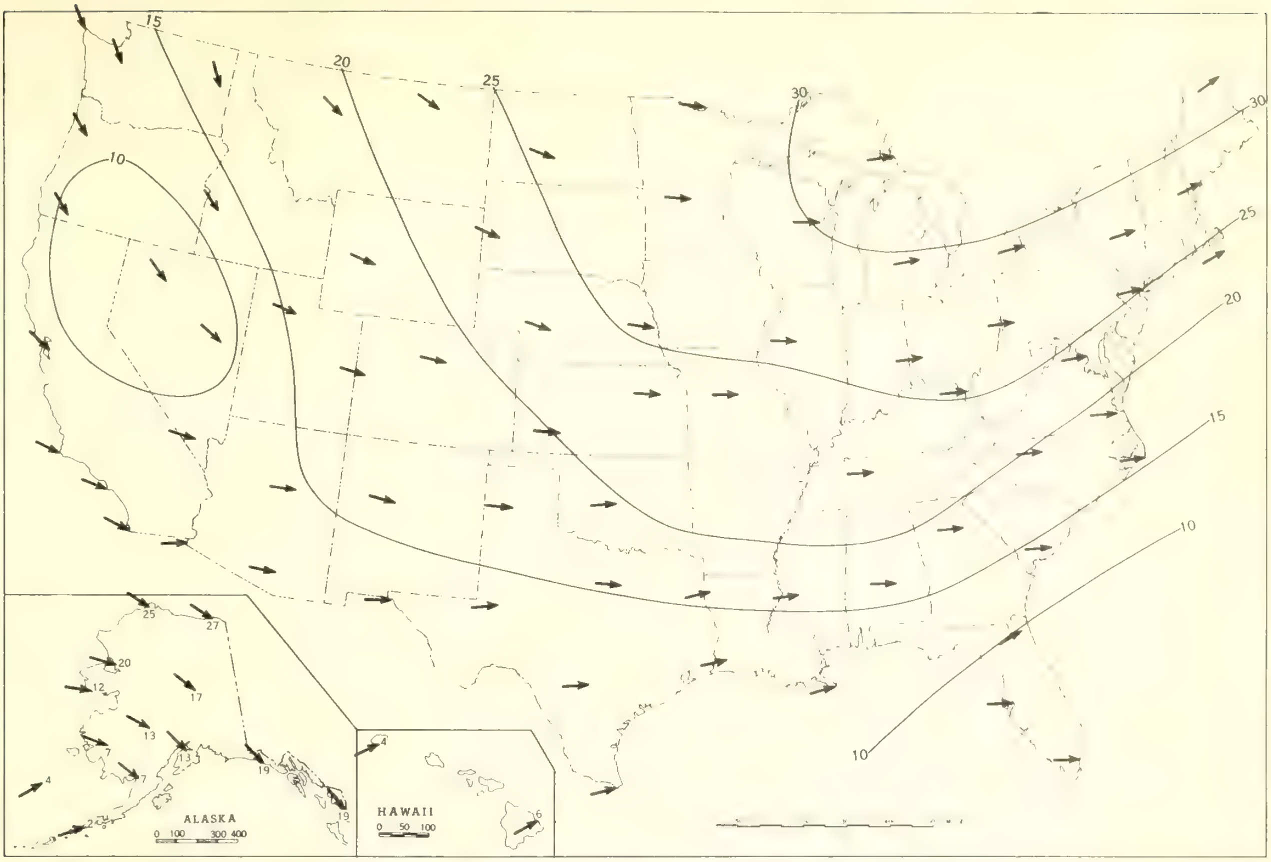
See Chart XI for explanation of map.

Chart XVI. 100-mb. Surface, 1200 GMT, March 1962. Average Height and Temperature, and Resultant Winds.

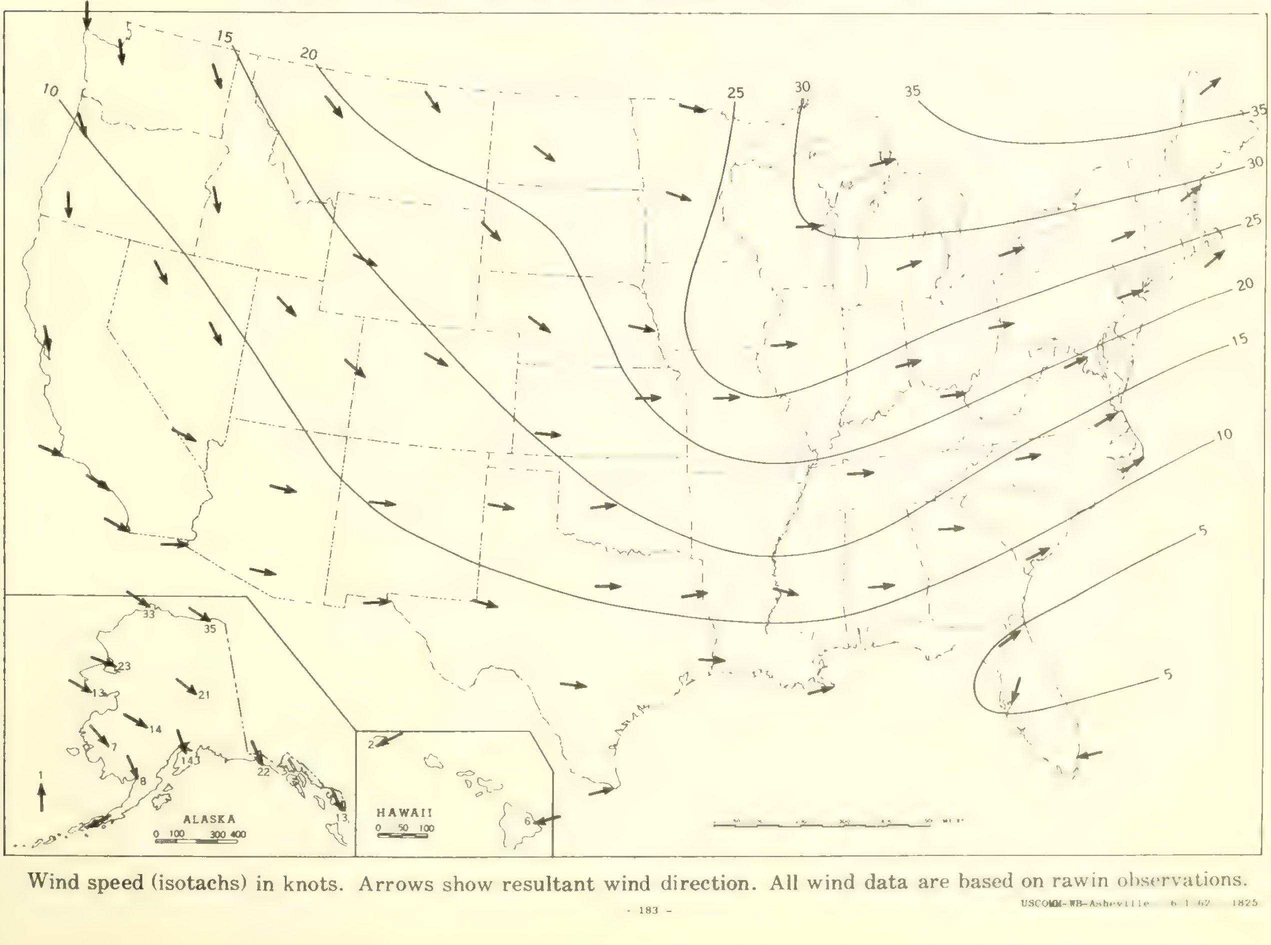


See Chart XI for explanation of map.

Chart XVII. A. 50-mb. Surface, 1200 GMT, March 1962. Resultant Winds.



B. 30-mb. Surface, 1200 GMT, March 1962. Resultant Winds.



Wind speed (isotachs) in knots. Arrows show resultant wind direction. All wind data are based on rawin observations.

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CLIMATOLOGICAL DATA

NATIONAL SUMMARY

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APRIL 1962
Volume 13 No. 4

ASHEVILLE: 1962

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NOTE: Delayed data and corrections will be carried in the June and December issues of this publication.

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CLIMATOLOGICAL DATA

NATIONAL SUMMARY

Volume 13 No. 4

APRIL 1962

GENERAL SUMMARY OF WEATHER CONDITIONS

Unseasonably cold weather overspread the middle and eastern portions of the country near the middle of the month, followed by a short period of record-breaking heat for so early in the spring. The Far West was mostly warmer than usual. Moderate to heavy precipitation fell in a U-shaped band from the Pacific Northwest and northern Rockies southeastward over the southern Great Plains and South and thence northeastward to New England. Dry conditions prevailed in the Far Southwest, northwestern Great Plains, from Kansas to Ohio, and in the Florida Peninsula. Navigation opened in the Great Lakes near normal dates during the month.

TEMPERATURE. -- The month averaged about 2° to 5° warmer than usual over the western half of the country, a few degrees cooler than normal in the upper Mississippi Valley and South, and near to slightly above normal in the southern Lake region and Northeast. It was the warmest April of record at Las Vegas, Nev. (70. 3°), and at Yuma, Ariz. (77. 4°). New April records were set when the temperature rose to 100° and over for 7 consecutive days at Yuma, Ariz., and for 3 days at Phoenix, Ariz. However, the month was the second coldest April of record since 1910 at Knoxville, Tenn.

An unusually cold Canadian air mass for April spread southward over the eastern two-thirds of the Nation about midmonth. It brought general freezing southward to extreme southern New Mexico, northern Texas, and almost to Florida, with scattered frost into the north-central portion of the latter State on the 17th. The coldest weather for so late in the season was reported from a number of stations. They include Minneapolis (airport), Minn., 2° on the 13th (22 years); Charlotte (airport), N. C., 26° on the 16th; Savannah (airport), Ga., 32° on the 16th; and Cape Hatteras, N. C., 33° on the 17th.

This unusually cold April weather was followed by a period of unseasonal warmth that prevailed over the Far West about the 14th to the 24th, the Midcontinent from the 24th to the 28th, and the East and South from the 26th to about the 30th. Reports of the highest temperature at airport stations for so early in the season were widespread. Some of these are: Boise, Idaho, 86° on the 14th; Elko, Nev., Sheridan, Wyo., and Great Falls, Mont., 83° at each on the 19th; Salt Lake City, Utah, 85° on the 19th; Rapid City, S. Dak., 89° on the 20th; Bismarck, N. Dak., 91° on the 24th; Sioux Falls, S. Dak., 94° on the 25th; Green Bay, Wis., 87° on the 26th; Hartford, Conn., 94° and Boston, Mass., 91° on the 27th; and Burlington, Vt., 87° on the 28th. These readings at Burlington, Hartford, and Boston were their highest temperatures of record for April, also. This was the first time in 91 years that Boston had a temperature of 90° in April. The temperature had risen from 46° to 91° on the 27th, a range of 45°, the greatest of record in April at Boston.

PRECIPITATION. --Monthly totals were near to mostly above normal in a belt from the north Pacific coast and the extreme western Canadian Border southeastward over the northern and middle Rocky Mountain region and southern Great Plains (except the Coastal Bend section of Texas), eastward over the South, and thence northeastward over the Atlantic States. Amounts were about normal or above, also, from the extreme eastern Dakotas and southern Iowa to the upper Great Lakes region. In contrast, less than 25 to 50 percent of the normal precipitation was received from southeastern Oregon southward over the Great Basin, California, Arizona, and New Mexico, in a large strip covering the northwestern and middle Great Plains, northern Missouri, and most of Illinois, Indiana, and Ohio, and in extreme southern Florida.

Precipitation for the month exceeded 8 inches on the Washington coast and in sections from north-central Texas eastward over the middle Gulf area. A total of 11. 47 inches for the month and 5. 41 inches in 24 hours on the 6th and 7th were new April records at Stampede Pass, Wash. Other 24-hour record amounts for April were: 1. 58 inches at Olympia, Wash. (21 years), and Eugene, Oreg. (20 years), on the 26th and 27th, and 6. 97 inches at Baton Rouge, La., on the 27th and 28th. Some heavy flooding was reported from the upper Mississippi River and in the rivers of Alabama and Mississippi. (An article on floods appears in this publication.)

Many stations in the Far Southwest did not receive any measurable precipitation during April, some not even a trace. The 0. 06 inch at Billings (airport), Mont., was the least April total in 28 years; 1. 23 inches at Topeka (airport), Kans., in 50 years; 1. 09 inches at Burlington (airport), Iowa, in over 61 years; 0. 89 inch at Peoria (airport), Ill., in 61 years; 1. 01 inch at Louisville (airport), Ky., in 32 years; and 0. 86 inch at Columbus (city), Ohio, in 73 years. Drought conditions prevailed in the immediate Coastal Bend area of Texas, where the total for January through April at Corpus Christi was only 1. 87 inches, the least for that 4-month period in 37 years.

SNOWFALL. --Totals were generally below normal in the Far West, particularly in middle and southern areas. However, the snowpack at higher elevations is still generally near normal in the Pacific Northwest, except in portions of Washington and Oregon, and above normal in the middle and southern Rockies and Far Southwest. At low and intermediate elevations, however, snow cover was generally depleted by above-normal warmth, resulting in wet mountain soils and generally high rivers. Streamflow was over 200 percent of normal in parts of Colorado, New Mexico, Utah, Arizona, Nevada, and California.

In northern and middle sections east of the Rockies, light to mostly moderate snowfall occurred on a few days, notably about the 1st and 2d and between the 12th and 16th. Over 3 inches of snow fell on the 1st and on the 12th at La Crosse, Wis.; 7. 2 inches at Rochester, Minn., and 15 inches at Greenville, Maine, on the 12th and 13th; and 10 inches at Elkins, W. Va., from the 13th to the 16th. A 1-inch fall on the 1st at Louisville, Ky., was the greatest in April there since 1917. Rochester (airport), Minn., reported a 12.9-inch total as the greatest of record for April. The seasonal totals of 78.7 inches at La Crosse (airport), Wis., and 146.7 inches at Muskegon (airport), Mich., were new records; also 85.6 inches at Escanaba, Mich., was the greatest seasonal since 1927-28.

DESTRUCTIVE STORMS.--A severe tornado moved northeastward across Sheppard Air Base at Wichita Falls, Texas, about 10:45 p.m., the 26th in a path 100 yards wide and 3 miles long. It caused about 13 injuries and property damage of $1/2 million. Heavy rain and high winds caused damage at Olympia, Wash., on the 27th, and hail damaged fruit and asparagus in the Walla Walla section of the State on the same date.

Most storm damage during the month was in connection with a vigorous squall line that moved eastward over the Interior on the 29th and 30th. It was accompanied by high winds, scattered severe thunderstorms, some hail, and a number of tornadoes. Many areas reported considerable damage to roofs, trees, and powerlines, particularly from northern Texas and Louisiana northeastward over eastern Oklahoma, Arkansas, Missouri, Illinois, Lower Michigan, and northern portions of Indiana and Ohio to western New York. South Bend, Ind., reported a 75 m.p.h., wind with gusts to 115 m.p.h. More than a dozen tornadoes were reported in scattered areas from northern Texas to Lower Michigan. (Storm reports appear in the publication Storm Data.)

CONDENSED CLIMATOLOGICAL SUMMARY

APRIL 1962

Section	Temperature						Precipitation			
	Monthly extremes						Monthly extremes			
	Station	Highest	Date	Station	Lowest	Date	Station	Greatest	Station	Least
		°F			°F			In.		In.
Alabama	Eufaula	91	30	2 Stations	23	3+	Haleyville	10.72	Mobile WB Airport	1.89
Arizona	Santa Rosa School	111	14	do	12	1	Junipine	.55	106 Stations	.00
Arkansas	2 Stations	93	29	do	20	3+	El Dorado FAA AP	6.56	Helena	1.30
California	Death Valley	106	19	White Mountain 2	2	20	Gasquet RS	4.15	193 Stations	.00
Colorado	Holly	95	21	3 Stations	-1	2	Climax 2NW	4.84	Center	.06
Connecticut	Bulls Bridge Dam	95	28	Coventry	13	4	Bulls Bridge Dam	6.07	Baltic	2.54
Delaware	2 Stations	90	26	3 Stations	24	4	Dover	5.02	Georgetown 5SW	2.36
Florida	Ocala 2NE	97	30	Usher Tower	28	17	Jasper 3SE	11.40	Miles City Tower	.50
Georgia	Alma FAA Airport	94	30	2 Stations	20	3+	Preston 3SW	9.14	Ailey	1.85
Idaho	Glenns Ferry	91	18	Kilgore	3	29	Wallace	3.09	Blackfoot 2SSW	T
Illinois	La Salle Peru	90	26	Marengo	19	3	Belleville Scott AF Base	4.28	Quincy Dam 21	.60
Indiana	Oolitic Purdue Exp Farm	90	30	3 Stations	17	3	La Porte	4.36	Osgood	.28
Iowa	Inwood 2W	94	25	Delaware 3WSW	4	2	Oelwein 2SE	4.33	Sioux City 4N	.38
Kansas	2 Stations	95	20	Russell Springs	14	2	Oswego 1N	5.47	Long Island	.08
Kentucky	7 Stations	90	30+	Heidelberg Lock 14	18	4	Albany 4N	6.91	Carrollton Lock 1	.56
Louisiana	Donaldsonville	91	30	3 Stations	27	2	Greensburg	18.80	Quarantine	.81
Maine	Sanford 2NNW	92	27	Clayton Lake	3	4	Machias	7.24	The Forks	2.32
Maryland	5 Stations	91	28+	Oakland 1SE	15	4	Prince Frederick	6.09	Boyds 2NW	2.56
Massachusetts	Farmingham	93	28	2 Stations	14	4	Beechwood	6.10	Amherst	2.69
Michigan	2 Stations	90	26	Champion Van Riper Park	2	3	Eau Calire 4NE	4.09	Montague	.46
Minnesota	Madison	96	25	4 Stations	0	11+	Elgin	3.67	Caribou 2S	.30
Mississippi	4 Stations	90	30+	Holly Springs 4N	24	3	Philadelphia 1WSW	13.91	Biloxi City	.58
Missouri	Lakeside	93	30	Berryman 6NW	14	3	Kennett Radio KBOA	5.55	Amity	.38
Montana	6 Stations	90	24	Lakeview	1	1	Summit	3.75	Ballantine	.00
Nebraska	Ainsworth	96	25	Beaver City	9	2	Osmond	3.00	Orleans 2W	T
Nevada	Sunrise Manor L Veg	102	19+	Mountain City RS	7	30	Lamoille PH	2.04	26 Stations	.00
New Hampshire	2 Stations	92	27	Fabyan	6	4	Lincoln	5.19	Dublin	1.98
New Jersey	Paterson	92	28	Charlotteburg	16	4	Blackwells Mills	5.86	Cape May 3W	2.67
New Mexico	6 Stations	96	17+	Eagle Nest	5	2+	Bateman Ranch	1.50	4 Stations	.00
New York	Cairo	94	27	Paul Smiths	0	4	Canada Lake	8.22	Auburn Water Works	1.29
North Carolina	2 Stations	93	30	Celo 2S	15	21+	Lake Toxaway 2SW	10.31	Cape Fear Lock 3	1.88
North Dakota	Fullerton	97	24	Pembina	-1	11	Wahpeton	2.42	2 Stations	.07
Ohio	2 Stations	90	30+	3 Stations	15	16+	Clarington Lock 14	5.44	London Water Works	.19
Oklahoma	do	95	29	Mutual 2NE	18	2	Cloudy Tower	6.88	Kenton	.49
Oregon	Richland	89	24	Crater Lake NP HQ	5	29	Government Camp	10.77	Brothers	.11
Pennsylvania	2 Stations	92	28+	Bradford 4W Reservoir	9	3	Johnstown	6.51	Kegg	1.61
Puerto Rico	Utuado	94	17	2 Stations	56	12+	Isabela 4SW	14.85	Charlotte Amalie 2	1.07
Rhode Island	Greenville	87	27	Kingston	18	4	Block Island WB AP	6.11	Kingston	3.09
South Carolina	Bamberg	95	30	2 Stations	23	16	Anderson	9.23	Great Falls	2.26
South Dakota	Murdo	102	25	Deerfield 5NW	-9	2	Platte	3.57	Fort Sully 8NE	T
Tennessee	2 Stations	90	30+	Mountain City 2	19	21	Shelbyville 3	8.28	Bolton	2.13
Texas	do	104	30+	Dumas	20	2	Dallas WB Airport	8.95	Valentine 10WSW	.00
Utah	St George PH	94	14	Silver Lake Brighton	0	30	Silver Lake Brighton	4.69	3 Stations	.00
Vermont	Vernon	91	28	West Burke	5	4	Searsburg Mountain	6.45	Rutland	1.72
Virginia	Lincoln	93	25	Monterey	15	17	Nassawadox	7.15	Speedwell	1.49
Washington	2 Stations	87	23+	Snoqualmie Pass	16	20	Spruce	13.07	Inchelium 2NW	.19
West Virginia	3 Stations	91	28	Kumbrabow State Forest	7	17	Kumbrabow State Forest	7.22	Princeton	1.75
Wisconsin	Marinette	90	27	Long Lake Dam	5	3	Pittsville	3.23	Gordon 2ESE	.66
Wyoming	2 Stations	90	20	Lake Yellowstone	-7	8	Alva 5SE	2.78	Clark 7NE	T

+ And also on an earlier date or dates.

NOTE: Dates in the above Condensed Climatological Summary apply to the period 24 hours prior to time of observation. In some cases the actual occurrence is on the calendar date preceding that shown. (See individual Climatological Data for times of observations).

CLIMATOLOGICAL DATA

ENGLISH UNITS

State and Station	Elevation (ground)	Pressure: Station Ø	Pressure: Sea level	Temperature: Average maximum	Temperature: Average minimum	Temperature: Average	Temperature: Departure from normal	Temperature: Highest	Temperature: Date	Temperature: Lowest	Temperature: Date	Temperature: No. of days: Max. 90° F. or above	Temperature: No. of days: Min. 32° F. or below	Temperature: Average dew point	Average relative humidity	Precipitation: Total	Precipitation: Departure from normal	Precipitation: Greatest in 24 hours	Precipitation: No. of days: .01 inch or more	Precipitation: No. of days: With thunderstorms	Precipitation: Snow, Sleet: Total	Precipitation: Snow, Sleet: Maximum depth on ground	Wind: Average speed	Wind: Prevailing direction	Wind: Fastest mile: Speed	Wind: Fastest mile: Direction	Wind: Fastest mile: Date	No. of days (sunrise to sunset): Clear, 0-3	No. of days (sunrise to sunset): Partly cloudy, 4-7	No. of days (sunrise to sunset): Cloudy, 8-10	Sky cover, tenths (sunrise to sunset)	Possible sunshine
ALABAMA	Ft.	Mb.	Mb.	°F.	°F.	°F.	F.	°F.		°F.				°F.	%	In.	In.	In.			In.	In.	M.p.h.		M.p.h.							%
BIRMINGHAM	610	994.1	1019.6	74	51	62.2	0.1	88	30	32	16	0	1	46	60	2.99	-1.48	1.18	10	4	0.0	0	10.1	S	36	SE	28	15	2	13	5.2	62
HUNTSVILLE	605	995.6	1019.2	70	48	58.7	- 2.9	89	30	30	16	0	3	43	61	4.57	0.58	1.90	12	9	0.0	0	7.8	ESE	37*	SW	11	9	10	11	5.7	
MOBILE	211	1017.3	1019.7	76	56	65.6	- 1.0	85	20	38	16	0	0	56	75	1.89	-4.47	1.10	5	3	0.0	0	10.7	SSE	29*	SSW	29	10	11	9	5.4	
MONTGOMERY	195	1011.4	1019.8	74	51	62.4	- 1.7	85	30	36	2	0	0	50	67	6.41	1.52	4.27	5	5	0.0	0	7.0	S	28	W	28	15	5	10	4.6	67
ALASKA												B																				
ANCHORAGE	90	1003.1	1008.2	45	29	36.9	1.2	50	22+	24	10	0	27	25	65	0.25	-0.17	0.12	5	0	3.0	2	5.7	N	31*	NW	28	6	4	20	7.3	51
ANNETTE	110	1008.1	1012.0	48	38	43.3	0.4	58	1	33	10	0	0	36	80	12.19	3.07	1.76	24	0	T	0	11.3	SSE	31*	SSE	12+	1	4	25	8.6	
BARROW	22	1019.0	1019.5	7	-10	- 1.8	- 2.0	28	24	-32	2	0	30	- 9	69	0.26	0.15	0.16	7	0	3.6	30	10.8	ENE	29*	SE	5	10	6	14	5.9	
BARTER ISLAND	39	1017.6	1019.6	9	-10	- .5	- 1.4	34	10	-27	2	0	30	- 6	72	0.13	-0.04	0.04	8	0	1.9	12	13.3	ENE	38*	W	7	14	4	12	5.2	
BETHEL	125	1012.9	1014.4	30	17	23.4	- 2.5	44	5+	- 3	13+	0	29	19	83	0.27	-0.31	0.10	7	0	3.3	2	15.8	NW	32*	NW	27	11	3	16	5.8	
COLD BAY	94	1011.5	1015.9	35	28	31.9	- 1.4	44	5	19	12	0	26	28	85	0.76	-0.70	0.30	10	0	2.9	1	17.8	NNW	38*	NW	19	0	0	30	9.8	
CORDOVA	40	1005.8	1007.4	46	30	38.2	2.0	53	27	20	10	0	19	31	77	2.76	-1.56	1.01	10	0	T	9	6.8	ESE	24*	ESE	2	6	4	20	7.3	
FAIRBANKS	436	993.9	1011.2	38	22	30.1	0.7	52	2	9	6	0	30	21	69	0.38	0.13	0.20	7	0	7.6	18	8.2	N	23*	SW	7	7	4	19	7.4	
JUNEAU	17	1008.8	1009.5	47	32	39.6	1.6	57	27	26	2	0	16	32	78	1.99	-0.88	0.36	17	0	1.8	2	8.7	ESE	40*	ESE	12	1	6	23	8.7	44
KING SALMON	43	1007.8	1009.8	40	25	32.4	- 0.4	50	6	11	13	0	29	25	75	0.80	0.16	0.23	4	0	6.2	3	11.2	NNW	37*	E	1	7	7	16	6.6	
KOTZEBUE	10	1014.9	1015.7	23	2	12.2	- 1.0	38	2	-23	13	0	30	7	78	0.29	-0.02	0.12	7	0	5.9	25	10.9	WNW	30*	NW	27+	11	5	14	5.8	
MC GRATH	334	999.3	1012.6	36	17	26.6	- 1.0	50	24+	- 6	14	0	29	16	62	0.41	-0.06	0.28	7	0	9.2	22	9.5	NNW	25*	W	25+	7	7	16	6.4	
NOME	13	1014.9	1015.7	27	10	18.4	- 2.8	39	1	-17	12	0	29	14	78	0.16	-0.64	0.05	8	0	1.4	36	11.9	N	37*	NW	27	13	8	9	5.1	54
ST. PAUL ISLAND	22	1017.6	1019.0	33	25	29.0	0.6	39	27+	12	12	0	29	27	89	1.05	0.09	0.69	9	0	4.9	2	17.1	NW	46*	NNW	18+	1	2	27	9.3	
SHEMYA	122	1022.4	1026.2	40	34	37.0	1.5	43	30	27	1	0	6	35	92	0.34	-1.72	0.10	11	0	0.3	T	19.2	SSW	43*	S	25	1	1	28	9.5	
YAKUTAT	28	1007.1	1008.2	45	30	37.6	0.6	54	12	8	10	0	18	33	83	7.82	0.59	1.51	19	0	6.2	8	7.2	ENE	32*	ESE	13+	3	5	22	8.2	
ARIZONA																																
FLAGSTAFF	6993	790.4	1016.7	65	30	47.6	4.3	78	18	19	1	0	18	20	39	0.09	-1.09	0.08	2	2	0.0	T	7.8	SSW	29*	NNE	6	13	8	9	4.6	
PHOENIX	1109	972.9	1011.5	91	54	72.3	3.6	101	15	44	3	16	0	31	23	0.00	-0.32	0.00	0	0	0.0	0	5.1	E	18*	SW	28+	16	6	8	3.8	96
PRESCOTT	5014	846.9	1014.1	76	40	58.0	4.8	87	18	30	1	0	2	20	26	T	-0.69	T	0	0	0.0	0	8.2	S	40	S	28	14	9	7	4.0	91
TUCSON	2584	924.5	1011.4	86	54	70.1	4.7	96	19+	44	1	10	0	26	21	T	-0.27	T	0	1	0.0	0	10.6	SSE	30	S	25	19	5	6	3.0	97
WINSLOW	4880	851.3	1012.3	77	40	58.5	2.4	88	19+	28	1	0	2	20	26	T	-0.45	T	0	0	0.0	0	11.5	SW	37*	SW	28	15	6	9	4.7	
YUMA	199	1006.1	1011.3	95	60	77.4	4.5	106	13	50	1	22	0	31	23	0.00	-0.09	0.00	0	0	0.0	0	7.7	SSE	25	N	6	16	6	8	3.6	96
ARKANSAS																																
FORT SMITH	449	1001.0	1018.0	71	48	59.5	- 2.2	93	29	28	2	2	2	46	65	2.25	-1.99	1.52	8	4	0.0	0	7.6	ENE	38	SW	30	7	10	13	6.5	51
LITTLE ROCK	257	1004.9	1018.3	71	48	59.5	- 2.9	87	29	30	2	0	1	47	65	2.90	-2.03	1.04	11	3	0.0	0	8.8	SE	34	S	27+	8	10	12	5.9	58
TEXARKANA	361			72	52	62.3	- 1.6	86	29	34	2	0	0	52	74	3.40	-1.90	1.08	9	4	0.0	0	9.1	ENE								
CALIFORNIA																																
BAKERSFIELD	494	999.7	1017.2	80	52	65.8	2.8	95	23	42	20	5	0	44	48	0.02	-0.79	0.02	1	0	0.0	0	7.5	NNW	37*	NNW	19	11	14	5	4.2	
BISHOP	4108	874.4		79	39	58.8	3.7	88	18	29	30	0	3			0.00	-0.46	0.00	0	0	0.0	0						15	7	8	3.9	
BLUE CANYON	5280	840.8		58	42	49.9	4.8	69	6	27	20	0	4			2.71	-2.11	1.69	4	1	4.8	57	7.3	SSW	33	SSW	27	16	2	12	5.0	
BURBANK	699	989.8	1015.5	76	53	64.6	3.4	94	6	45	26	4	0	45	57	T	-1.21	T	0	0	0.0	0	8.0	S	32*	NNW	20	9	12	9	5.2	
EUREKA U	43	1019.6		55	45	50.4	0.0	66	13	40	30	0	0			2.62	-0.05	1.16	10	0	0.0	0	7.2	N$	35	S	27	7	8	15	6.8	57
FRESNO	326	1004.4	1016.3	80	49	64.8	4.0	95	13	43	30+	4	0	43	52	0.02	-1.11	0.02	1	0	0.0	0	6.6	NW	33	NW	19	17	11	2	3.3	97
LONG BEACH	34	1014.9	1016.2	73	52	62.5	2.7	92	6	46	5	2	0	50	71	T	-0.77	T	0	0	0.0	0	6.7	W	21*	SW	20	7	13	10	5.8	
LOS ANGELES	97	1012.5	1016.4	68	53	60.5	2.6	89	6	49	26+	0	0	51	75	0.00	-1.05	0.00	0	0	0.0	0	7.2	WSW	28*	NNW	20	6	14	10	5.9	
LOS ANGELES U	312			75	54	64.3	2.5	91	6	48	1	1	0	49	64	T	-1.17	T	0	0	0.0	0	5.6	W$	30	NW	20	9	15	6	4.6	77
MT SHASTA R	3544	894.7		66	36	51.0	3.5	78	22+	27	30+	0	7			0.52	-2.25	0.28	2	0	T	0						20	6	4	3.2	
OAKLAND	3	1018.6	1018.8	68	49	58.5	1.9	86	12	42	29	0	0	45	66	0.27	-1.11	0.16	2	0	0.0	0	9.0	WNW	31*	NW	24+	14	9	7	4.2	
POINT ARGUELLO	367	1003.7		59	46	52.5	- 1.2	75	6	37	30	0	0			0.08	-0.86	0.08	1	0	0.0	0	9.7		26*	NW	28+	12	5	13	5.6	
RED BLUFF	341	1004.1	1016.8	78	50	63.9	3.5	89	11	40	29+	0	0	40	46	0.14	-1.69	0.14	1	0	0.0	0	9.3	WNW	43	SE	27	14	7	9	4.2	90
SACRAMENTO	17	1016.6	1017.7	77	46	61.4	1.5	89	23	39	28+	0	0	46	64	0.15	-1.25	0.14	2	0	0.0	0	7.2	SW	31	W	24	16	8	6	3.6	93
SACRAMENTO U	23			77	49	63.2	2.9	90	13	42	29	1	0			0.19	-1.43	0.14	2		0.0	0										
SANDBERG R	4517	863.9		65	46	55.7	4.9	79	13	29	20	0	2			0.00	-0.97	0.00	0	0	0.0	0	14.7	N	62*	N	25	14	10	6	4.2	
SAN DIEGO	13	1012.5	1015.9	70	54	61.8	0.8	85	7	50	21+	0	0	51	74	0.01	-0.78	0.01	1	0	0.0	0	7.6	NW	22	NW	20	5	14	11	6.1	61
SAN FRANCISCO	8	1018.6	1019.4	65	47	56.0	0.3	83	12	42	16	0	0	46	75	0.34	-0.96	0.22	2	0	0.0	0	12.3	WNW	39	NW	8	14	9	7	4.1	
SAN FRANCISCO U	52			64	50	57.0	1.3	82	12+	46	23	0	0			0.36	-1.08	0.19	2	0	0.0	0	9.8	W$	29	W	30					83
SANTA MARIA	238	1009.5	1018.1	68	45	56.4	0.8	88	7	36	29	0	0	48	79	0.04	-1.15	0.04	1	0	0.0	0	8.8	WNW	32*	NW	25	15	7	8	4.0	
COLORADO																																
ALAMOSA	7536	770.4		62	27	44.4	2.6	75	16+	6	1	0	27			0.11	-0.58	0.07	3	3	T	6						8	15	7	5.4	

See footnotes at end of table

CLIMATOLOGICAL DATA

ENGLISH UNITS

State and Station	Elevation (ground)	Pressure		Temperature											Average relative humidity	Precipitation							Wind					No. of days (sunrise to sunset)			Sky cover, tenths (sunrise to sunset)	Possible sunshine
												No. of days							No. of days		Snow, Sleet				Fastest mile							
		Station Ø	Sea level	Average maximum	Average minimum	Average	Departure from normal	Highest	Date	Lowest	Date	Max. 90 F. or above	Min. 32 F. or below	Average dew point		Total	Departure from normal	Greatest in 24 hours	.01 inch or more	With thunderstorms	Total	Maximum depth on ground	Average speed	Prevailing direction	Speed	Direction	Date	Clear, 0-3	Partly cloudy, 4-7	Cloudy, 8-10		
COLORADO	Ft.	Mb.	Mb.	F.	F.	F.	F.	F.		F.				F.	%	In.	In.	In.			In.	In.	M.p.h.		M.p.h.							%
COLORADO SPRINGS	6173	797.5	1016.7	62	34	48.1	3.0	79	25+	19	2	0	14	26	52	0.44	-0.87	0.20	9	1	2.0	T	8.5	N	25*	N	6	6	12	12	6.2	
DENVER	5283	837.1	1014.4	64	36	50.3	2.9	83	20	15	1	0	11	26	45	1.10	-1.01	0.65	10	1	10.0	2	8.5	SSW	48	W	7	8	12	10	5.8	67
GRAND JUNCTION	4849	855.4	1013.8	69	42	55.5	3.2	86	19	30	1	0	3	23	35	0.97	0.22	0.49	8	3	1.7	2	6.7	ESE	43	N	7	9	11	10	5.3	78
PUEBLO	4639	855.7	1014.6	68	38	52.7	2.0	86	20+	25	2	0	7	31	52	1.41	0.23	0.70	6	2	2.8	2	10.1	N	52	W	7	7	12	11	5.7	71
CONNECTICUT																																
BRIDGEPORT	7	1015.4	1016.4	57	39	47.9	- 0.1	82	25	26	4	0	5	36	68	3.34	-0.46	1.81	8	1	T	T	14.4	W	55	NW	23	7	10	13	6.1	
HARTFORD	169	1008.7	1014.8	62	35	48.4	0.7	94	27	23	4+	1	10	33	61	3.33	-0.40	1.62	9	1	T	T	9.6	S	40	NW	9	7	8	15	6.6	59
NEW HAVEN	6	1015.4		57	38	47.3	0.4	81	25	26	4	0	7			3.78	-0.11	2.42	9	1	T	T	8.8		38	NW	23	10	6	14	6.1	58
DELAWARE																																
WILMINGTON	78	1013.2	1016.5	63	42	52.2	0.1	85	27+	27	17	0	4	39	64	3.50	0.17	1.16	12	2	T	T	10.7	NW	28*	NW	23	9	8	13	5.8	
DIST.OF COLUMBIA																																
WASHINGTON U	72			67	48	57.5	2.8	90	27+	33	17	2	0			2.61	-0.59	1.25	10													
WASH NATL AP	14	1012.7	1017.3	66	47	56.3	0.6	87	27+	32	4	0	1	39	57	2.90	-0.25	0.75	10	4	0.0	0	8.9	S	33	NW	15	7	12	11	5.5	62
FLORIDA																																
APALACHICOLA U	13	1017.6		72	58	65.2	- 2.3	82	30	45	16	0	0			1.96	-2.34	1.01	5	4	0.0	0	8.1		32	E	29	16	8	6	3.9	86
DAYTONA BEACH	31	1018.4	1020.3	78	56	66.9	- 2.0	89	11	39	17	0	0	55	67	0.78	-2.19	0.43	4	2	0.0	0	9.7	ESE	25*	ESE	5	11	7	12	5.4	
FORT MYERS	13	1018.5		84	61	72.3	- 0.5	92	30+	45	17	4	0			1.37	-1.27	0.79	4	2	0.0	0	9.4		23*	SW	1	8	12	10	5.8	
JACKSONVILLE	24	1018.7	1020.3	80	56	67.6	- 1.1	92	30	38	17	3	0	51	61	2.36	-1.19	1.40	6	3	0.0	0	8.6	NW	40	W	12	14	9	7	4.4	78
KEY WEST	5	1017.0	1018.3	81	71	75.7	- 0.1	85	27+	64	17	0	0	64	69	0.92	-1.56	0.39	5	3	0.0	0	13.4	ESE	29	N	14	8	8	14	6.4	82
LAKELAND U	214			80	60	69.9	- 1.6	92	28	48	17+	2	0			1.18	-2.33	0.59	4	4	0.0	0	7.6					9	14	7	5.0	74
MIAMI BEACH	9			79	70	74.6	- 0.3	87	8	58	17	0	0			2.15	-0.77	0.72	6		0.0	0	9.4		26	SE	11	4	14	12	6.4	51
MIAMI	7	1017.2	1018.6	80	66	73.1	- 1.1	87	9+	53	17	0	0	61	67	1.19	-2.69	0.46	5	1	0.0	0	11.7	ESE	23*	NE	21+	2	13	15	6.9	
ORLANDO	106	1015.3	1020.0	82	59	70.3	0.1	93	28+	45	17	6	0	55	64	1.58	-1.84	0.83	6	3	0.0	0	10.0	ESE	21*	S	7+	11	10	9	5.1	
PENSACOLA U	13			72	57	64.7	- 2.4	81	24	41	3	0	0			3.38	-2.19	1.82	7	4	0.0	0	9.9		24	SE	5					79
TALLAHASSEE	58	1017.5	1020.2	78	52	65.1	- 2.4	93	30	34	17	1	0	54	72	2.41	-2.23	1.35	8	5	0.0	0	10.1	S	29*	S	6	13	11	6	4.6	
TAMPA	19	1018.4	1020.0	80	59	69.4	- 2.0	89	30+	43	17	0	0	55	65	1.43	-1.41	0.91	2	3	0.0	0	11.8	N	27*	NNW	13	14	6	10	4.9	72
WEST PALM BEACH	15	1018.1	1019.3	81	65	72.6	- 1.3	86	13	51	17	0	0	61	68	1.90	-2.44	1.05	7	3	0.0	0	11.1	SE	25*	E	5	3	15	12	6.8	
GEORGIA																																
ATHENS	803	990.8	1019.5	70	46	57.9	- 3.2	87	30	30	3	0	3	44	64	6.22	1.83	1.69	11	6	0.0	0	9.0	WNW	27*	S	25	13	7	10	4.8	
ATLANTA	1005	977.0	1019.0	69	47	57.7	- 3.3	85	30	31	2	0	2	44	65	5.96	1.49	3.49	10	4	0.0	0	8.4	WNW	24*	W	13	15	4	11	4.6	62
AUGUSTA	143	1012.2	1019.2	74	48	60.7	- 2.5	91	30	32	16	1	1	48	67	5.11	1.55	1.97	9	5	0.0	0	7.5	SE	39*	NW	11	13	7	10	4.9	
COLUMBUS	385	1000.5		74	48	61.1	- 2.6	89	30	32	3	0	1			5.58	0.99	3.00	8	5	0.0	0	9.6		35*	NNW	28	16	6	8	4.2	
MACON	356	1005.8	1019.6	75	50	62.6	- 3.0	93	30	34	16	1	0	45	60	4.90	1.15	1.80	10	6	0.0	0	10.9	NW	33	S	11	15	4	11	4.5	64
ROME	637	996.1		69	43	56.1	- 3.7	88	30	28	21+	0	6			5.32	0.73	3.33	10	5	T	T						12	7	11	5.4	
SAVANNAH	48	1017.6	1020.4	75	51	63.3	- 2.4	91	30	32	16	1	1	50	67	3.02	-0.68	0.96	9	5	0.0	0	10.6	W	29	W	12	14	6	10	4.5	78
THOMASVILLE U	283			77	54	65.7	- 2.1	92	30	38	16	1	0			7.12	2.48	5.74	6	4	0.0	0						17	6	7	3.8	
HAWAII																																
HILO	31	1015.6	1017.8	81	65	73.2	1.6	86	26+	61	15	0	0	64	76	2.93	-8.99	0.48	22	0	0.0	0	8.8	WSW	25*	SE	24	3	12	15	7.2	53
HONOLULU	7	1016.9	1017.3	83	70	76.4	2.2	86	22	65	5	0	0	64	69	1.07	-0.24	0.96	7	0	0.0	0	12.5	ENE	32	NE	15	5	17	8	6.0	75
LIHUE	115	1012.5	1017.9	81	69	74.8	2.3	85	23+	64	6	0	0	66	75	8.86	5.52	3.46	15	2	0.0	0	12.1	NE	42	S	25	3	17	10	6.8	62
IDAHO																																
BOISE	2838	920.4	1016.7	67	38	52.4	2.5	86	14	27	29	0	7	31	49	0.92	-0.24	0.41	7	0	T	0	10.4	SE	34	W	19	8	11	11	5.8	86
IDAHO FALLS 42NW R	4790			61	29	45.2	2.1	84	19	18	29+	0	23			0.09	-0.40	0.09	2													
IDAHO FALLS 46W R	4933	848.3		62	30	45.9	2.6	82	19	21	30+	0	22			0.23	-0.28	0.22	2	0	0.0	0	8.4	SW	37A	SW	7					
LEWISTON	1413	965.8		67	41	53.5	2.7	84	14	33	11	0	0			0.43	-0.71	0.16	6	0	T	0						6	9	15	6.8	
POCATELLO	4444	863.5	1017.1	63	36	49.2	2.7	83	19	26	30	0	9	29	51	0.74	-0.32	0.50	5	1	0.3	T	12.3	WSW	42	SW	19	5	10	15	6.6	73
ILLINOIS																																
CAIRO U	314	1005.5		66	49	57.4	- 2.0	84	30	33	3	0	0			3.97	-0.10	1.29	11	3	0.2	T	8.9	S$	42	S	30	8	10	12	6.1	60
CHICAGO O HARE	658	991.6	1016.6	59	39	48.8		85	26	24	16	0	7	33	59	1.14		0.42	9	2	0.7	T	14.4	SW	37*	SW	9	9	8	13	5.8	
CHICAGO MIDWAY	610	993.9	1017.0	60	40	49.9	0.8	88	30+	26	16	0	7	33	56	1.56	-1.48	0.50	11	3	0.3	T	12.5	SW	45	W	9	8	8	14	5.9	65
MOLINE	582	994.0	1016.5	61	37	49.3	- 0.7	87	26	21	3	0	10	34	61	2.44	-0.73	1.01	11	2	0.2	T	10.5	NW	37	W	9	9	12	9	5.6	64
PEORIA	652	995.3	1017.8	62	38	50.2	- 0.6	85	26	23	3	0	9	35	61	0.89	-3.08	0.41	10	3	1.1	1	11.8	S	40	W	30	9	9	12	5.6	65

See footnotes at end of table

CLIMATOLOGICAL DATA

ENGLISH UNITS

State and Station	Elevation (ground)	Pressure		Temperature											Average relative humidity	Precipitation							Wind					No. of days (sunrise to sunset)			Sky cover, tenths (sunrise to sunset)	Possible sunshine
												No. of days							No. of days		Snow, Sleet				Fastest mile							
		Station Ø	Sea level	Average maximum	Average minimum	Average	Departure from normal	Highest	Date	Lowest	Date	Max. 90 F. or above	Min. 32 F. or below	Average dew point		Total	Departure from normal	Greatest in 24 hours	.01 inch or more	With thunderstorms	Total	Maximum depth on ground	Average speed	Prevailing direction	Speed	Direction	Date	Clear, 0-3	Partly cloudy, 4-7	Cloudy, 8-10		
ILLINOIS	Ft.	Mb.	Mb.	F.	F.	F.	F.	F.		F.				F.	%	In.	In.	In.			In.	In.	M.p.h.		M.p.h.							%
ROCKFORD	728	989.0	1016.7	59	37	47.7	- 0.1	85	26	22	3	0	11	33	61	2.42	-0.63	0.68	12	3	1.1	1	12.3	SSW	38*	SW	24	11	8	11	5.3	
SPRINGFIELD	588	994.0	1017.5	65	40	52.7	0.3	88	26	25	3	0	8	37	59	1.31	-2.28	1.28	11	1	0.3	T	12.0	S	60	W	30	9	11	10	5.6	64
INDIANA																																
EVANSVILLE	381	1002.4	1018.5	67	45	55.8	0.1	86	30+	28	16	0	3	38	54	1.26	-2.72	0.30	8	1	0.1	0	8.3	NW	43	SW	30	6	13	11	6.2	68
FORT WAYNE	791	985.8	1017.5	61	38	49.5	1.2	87	30	24	3	0	10	35	61	1.28	-1.86	0.51	9	1	0.3	T	12.3	WSW	63	W	30	8	12	10	5.6	72
INDIANAPOLIS	793	987.4	1017.8	61	41	51.1	0.3	87	30	26	16+	0	8	37	62	1.69	-2.05	0.94	8	1	T	T	8.9	WSW	32*	NW	30	11	9	10	5.5	69
SOUTH BEND	768	988.3	1016.8	58	37	47.6	0.1	86	30+	23	3	0	14	34	64	2.34	-1.24	1.12	9	2	1.8	1	13.0	SSW	55*	W	30	7	11	12	5.8	
IOWA																																
BURLINGTON	694	991.6	1017.5	62	39	50.7	- 0.1	86	26	24	3	0	10	35	60	1.09	-2.35	0.57	10	2	0.2	T	12.3	NW	32	NW	9+	10	11	9	5.4	70
DES MOINES	948	985.8	1017.6	60	39	49.3	- 0.6	84	26+	24	7	0	11	35	63	2.51	-0.02	1.22	10	3	0.9	1	8.7	NW	34	NW	12	9	6	15	6.1	56
DUBUQUE	1065	991.0		56	36	45.9	- 0.9	83	26	16	3	0	12			4.05	0.97	1.05	10	0	7.8	6						12	3	15	5.5	
SIOUX CITY	1095	975.1	1017.0	62	37	49.4	0.5	91	25	22	15	2	12	35	65	0.98	-1.27	0.36	8	3	1.6	1	12.1	NNW	40	NW	8	11	10	9	4.9	67
WATERLOO	868	984.6	1017.1	57	36	46.5	- 1.3	84	26+	19	2	0	14	34	67	2.03	-0.67	0.58	11	3	2.2	2	12.3	NW	30*	SE	20+	11	5	14	5.9	
KANSAS																																
CONCORDIA U	1375	966.5		65	41	53.2	- 0.2	84	20	23	2	0	6	35	54	0.56	-1.56	0.19	6	4	0.0	0	9.2	SE$	32	NW	1	15	7	8	4.4	74
DODGE CITY	2594	927.6	1016.3	66	42	54.0	0.4	88	20	24	2	0	2	39	63	1.75	-0.09	0.71	8	5	0.0	0	12.1	SSE	55	S	3	7	10	13	6.1	67
GOODLAND	3645	887.6	1015.2	67	35	50.9	2.8	89	20	16	1	0	13	31	53	0.33	-1.26	0.15	3	1	T	T	14.3	SSE	52*	NNW	7	11	11	8	4.9	
TOPEKA	877	981.1	1017.2	66	38	52.2	- 2.2	86	20	23	2	0	10	36	58	1.23	-2.06	0.73	6	4	T	T	12.7	S	57	S	21	10	8	12	5.6	63
WICHITA	1321	967.5	1016.5	68	42	55.1	- 1.6	85	20	17	2	0	5	40	61	1.02	-1.28	0.54	6	3	0.0	0	13.1	S	47	S	20	6	12	12	6.3	59
KENTUCKY																																
COVINGTON	869	985.9	1018.2	63	42	52.3	- 0.9	87	30	26	16	0	4	34	55	1.26	-1.96	0.30	12	1	1.7	T	9.6	SW	29*	SW	22	7	8	15	6.3	
LEXINGTON	979	982.4	1018.6	63	42	52.3	- 2.1	88	30	26	16	0	8	38	63	2.61	-1.43	0.78	11	2	0.8	T	10.8	SSE	35*	NW	1	7	13	10	5.7	
LOUISVILLE	474	1000.3	1018.3	65	42	53.1	- 1.7	88	30	29	14	0	6	40	63	1.01	-2.81	0.42	8	1	1.0	1	8.9	S	42	N	30	7	13	10	5.9	50
LOUISIANA																																
ALEXANDRIA	92	1013.8	1018.6	76	51	63.5		86	11	31	2	0	1	54	76	5.34		2.08	9	6	0.0	0	6.5	S				6	9	15	6.3	
BATON ROUGE	64	1015.6	1018.7	77	55	66.0	- 1.7	88	30	38	2	0	0	56	74	9.70	4.93	6.97	7	6	0.0	0	9.0	SE				8	11	11	5.9	
BURWOOD R	5		1019.5	72	60	66.2	- 1.7	80	29	49	3+	0	0	60	81	1.05	-2.96		3	1	0.0	0	11.1	SE								
LAKE CHARLES	14	1016.4	1018.0	75	56	65.6	- 2.3	83	30	37	2	0	0	58	79	3.11	-1.26	1.80	7	5	0.0	0	10.4	SSW	30*	SSE	27	4	12	14	6.7	
NEW ORLEANS	3	1016.7	1018.9	77	55	65.8	- 1.1	87	28	38	1	0	0	58	77	2.66	-1.89	0.83	8	2	0.0	0	9.1	SSE	25*	SSE	27	10	12	8	5.1	
NEW ORLEANS AUDUBON	10	1012.1		77	58	67.1		86	28	45	3+	0	0			4.95		1.79	6	3	0.0	0										
SHREVEPORT	252	1008.6	1018.1	74	54	64.0	- 1.3	85	29	36	2	0	0	55	76	5.78	1.21	1.61	9	6	0.0	0	10.1	S				7	13	10	6.1	53
MAINE																																
CARIBOU	624	988.7	1012.5	45	27	36.2	- 0.2	60	21	16	4	0	25	27	72	2.94	0.31	0.69	14	1	11.7	7	12.7	W	35	NW	28+	3	7	20	7.6	
PORTLAND	61	1010.0	1014.2	54	30	42.0	- 0.5	71	27+	16	4	0	21	31	70	4.51	0.78	1.65	13	1	7.7	2	10.8	WSW	38	NW	24	5	13	12	6.4	58
MARYLAND																																
BALTIMORE	146	1012.0	1016.9	66	42	53.9	- 0.3	91	27	26	17	2	5	37	56	4.25	0.65	1.44	10	3	0.0	0	11.2	W	39	W	13	8	12	10	5.4	60
BALTIMORE U	14			66	47	56.6	0.9	91	27	33	17	1	0			3.83	0.12	1.48	8													
FREDERICK	294			65	39	52.1	- 0.1	88	27+	23	4	0	7			2.98	-0.69	0.79	10		T	T										
MASSACHUSETTS																																
BLUE HILL OBS R	629	989.9	1013.5	59	36	47.5	1.8	88	27	25	4	0	9		64	4.77	0.77	2.28	10		3.0	3	17.3	WNW	58	NW	9					57
BOSTON	15	1009.4	1014.2	59	40	49.4	1.5	91	27	31	4	1	3	33	59	3.85	0.08	2.02	11	1	0.1	T	15.9	SW	42	W	23+	7	10	13	6.0	61
NANTUCKET	43	1014.6	1015.2	52	39	45.5	1.7	62	23	31	18	0	2	37	75	3.81	0.05	1.25	9	1	0.7	T	15.5	WSW	42	NW	16	9	12	9	5.4	63
PITTSFIELD	1170			56	32	43.7	0.7	86	27	17	4	0	19			3.09	-0.78	1.00	11		4.9	4										
WORCESTER	986	976.8	1013.9	56	34	45.0	0.4	88	27	20	4	0	13	30	61	3.44	-0.49	1.67	11	1	1.8	1	11.7	W	31*	W	23	6	11	13	6.4	
MICHIGAN																																
ALPENA	689	989.5		50	29	39.4	- 1.2	74	26	11	3	0	20			1.43	-1.20	0.45	13	2	3.0	2	8.4	SW$	29	SE	30	5	12	13	6.3	53
DETROIT	619	989.6	1016.6	60	39	49.6	2.5	85	30+	26	1	0	8	33	57	2.26	-0.74	0.97	10	1	0.1	T	11.6	NW	42	NW	30	8	13	9	5.5	65
DETROIT M WAYNE CO	633	992.1	1016.6	58	34	46.4	- 0.3	85	26	22	17	0	14	33	64	2.90	-0.15	1.55	11	2	0.5	T	9.8	WSW				7	13	10	5.5	
DETROIT WILLOW RUN	711	987.5	1016.2	61	36	48.3	0.6	87	26	24	3+	0	11	33	59	1.30	-1.75	0.48	6	2	0.1	T	11.8	SW	32*	W	22	7	13	10	5.8	
ESCANABA U	594	993.2		46	30	38.1	- 1.0	71	25	18	3	0	18	28	73	2.81	0.58	1.04	12	3	9.9	9	11.1		38	NE	30+	8	9	13	6.3	51
FLINT	766	988.5	1016.7	57	33	45.4	0.2	84	27+	21	3+	0	17	33	65	2.44	-0.22	1.51	11	1	2.2	1	10.8	WSW	25*	SW	22	7	11	12	6.2	

See footnotes at end of table

CLIMATOLOGICAL DATA

ENGLISH UNITS

State and Station	Elevation (ground)	Pressure		Temperature											Average relative humidity	Precipitation							Wind					No. of days (sunrise to sunset)			Sky cover, tenths (sunrise to sunset)	Possible sunshine
												No. of days							No. of days		Snow, Sleet				Fastest mile							
		Station Ø	Sea level	Average maximum	Average minimum	Average	Departure from normal	Highest	Date	Lowest	Date	Max. 90° F. or above	Min. 32° F. or below	Average dew point		Total	Departure from normal	Greatest in 24 hours	.01 inch or more	With thunderstorms	Total	Maximum depth on ground	Average speed	Prevailing direction	Speed	Direction	Date	Clear, 0-3	Partly cloudy, 4-7	Cloudy, 8-10		
MICHIGAN	Ft.	Mb.	Mb.	°F.	°F.	°F.	F.	°F.		°F.				F.	%	In.	In.	In.			In.	In.	M.p.h.		M p.h.							%
GRAND RAPIDS	681	991.0	1016.7	57	35	45.9	0.2	84	27	22	3	0	17	31	60	2.66	-0.28	1.04	12	4	3.1	1	12.1	WSW	41	W	30	9	7	14	6.2	60
LANSING	852	983.8	1016.3	57	34	45.3	- 0.4	84	26	21	3+	0	17	31	61	1.38	-1.49	0.39	9	2	3.5	2	15.1	WSW	60	W	30	7	11	12	6.1	67
MARQUETTE U	677	988.7		46	30	38.1	- 1.2	76	24	20	2	0	18			1.38	-1.32	0.60	10	2	2.0	9	8.7	NW$	42	SW	21	3	14	13	6.8	61
MUSKEGON	627	992.9	1016.6	55	35	44.8	0.6	82	27	26	8+	0	17	33	68	1.11	-1.47	0.52	9	1	1.3	1	12.0	SSW	29*	NNW	13	10	5	15	6.1	
SAULT STE MARIE	721	992.8	1016.1	46	30	37.8	0.3	66	25	15	3	0	17	29	74	2.06	-0.10	0.77	13	2	4.7	2	10.0	WNW	30*	NW	28	7	6	17	6.8	48
MINNESOTA																																
DULUTH	1426	974.8	1017.4	44	24	34.2	- 3.3	77	24	10	10	0	28	22	65	2.67	0.31	1.28	10	2	5.7	8	12.3	NW	48	NE	27	5	10	15	6.8	55
INTERNATIONAL FALLS	1179	975.5	1017.5	46	23	34.4	- 3.0	75	24	3	10	0	24	24	68	1.80	0.24	1.06	8	0	12.3	12	9.1	NW	27*	NW	18	8	10	12	5.7	
MINNEAPOLIS	822	982.7	1015.9	54	30	42.2	- 2.5	91	25	2	13	1	20	30	64	1.31	-0.54	0.49	11	3	6.4	6	12.9	NW	33*	NW	22	12	6	12	5.6	58
ROCHESTER	1297	968.0	1016.8	52	31	41.5	- 3.0	84	26	13	13	0	18	33	74	2.83	0.64	1.23	10	4	12.9	7	14.2	NW				12	5	13	5.7	
ST CLOUD	1034	978.4	1015.9	52	28	40.0	- 2.8	88	25	17	10+	0	20		63	1.13	-0.89	0.60	7	1	0.9	1						10	8	12	5.6	
MISSISSIPPI																																
JACKSON	305	1006.6	1018.9	74	52	62.6	- 1.8	88	29	33	2	0	0	51	69	8.55	4.04	4.20	11	8	0.0	0	8.1	SSE	57	NW	30	11	9	10	5.2	64
MERIDIAN	292	1005.2	1019.6	75	50	62.7	- 1.7	87	30+	31	3	0	2	51	72	6.05	0.72	2.50	8	5	0.0	0	7.4	S	23*	NNW	15+	12	7	11	5.0	
VICKSBURG U	234	1009.1		72	53	62.6	- 3.1	86	30+	37	3	0	0			10.64	5.72	5.64	11	7	0.0	0	8.7		41	NW	30	8	14	8	5.5	64
MISSOURI																																
COLUMBIA	778	988.1	1016.9	65	41	52.9	- 1.7	87	29	25	3	0	7	37	59	1.33	-1.97	0.25	11	3	0.4	T	10.6	SSE	40	NW	12	11	7	12	5.4	64
KANSAS CITY	742	981.8	1016.9	66	43	54.5	- 0.7	86	29	28	2	0	4	37	56	1.10	-2.46	0.37	8	3	1.1	T	9.1	NW	38	SW	21	10	8	12	5.8	67
ST JOSEPH	809	982.2		65	39	51.8	- 1.8	85	29	25	2	0	10			1.28	-1.87	0.54	9	4	0.2	T	12.2	S	40*	S	21+	10	11	9	5.1	
ST LOUIS	535	997.1	1018.1	65	41	53.1	- 2.3	85	21	24	3	0	5	36	57	2.52	-1.19	1.15	12	3	T	T	10.2	SSE	37	NW	12	7	12	11	5.9	30
ST LOUIS RFC	465			64	45	54.7	- 1.8	84	26+	29	15	0	3			4.83	1.25	2.11	9	0	T	T										
SPRINGFIELD	1265	967.5	1017.7	64	41	52.9	- 2.7	88	29	24	3	0	7	40	65	3.33	-0.76	1.48	9	6	T	T	10.3	SSE	39	S	21	10	5	15	6.2	60
MONTANA																																
BILLINGS	3567	890.3	1014.8	64	38	50.7	5.2	87	19	25	12	0	8	27	44	0.06	-1.25	0.04	3	0	T	0	11.3	WSW	45	NW	7	5	11	14	6.3	72
GLASGOW	2277	939.7		61	34	47.2	3.8	87	24	19	12	0	12	25	50	0.21	-0.80	0.08	6	0	T	0						5	8	17	7.1	
GREAT FALLS	3662	887.6	1015.8	62	34	48.1	4.0	83	19	24	8	0	13	26	47	0.58	-0.40	0.30	8	1	3.8	1	11.4	SW	34	W	15+	3	9	18	7.2	62
HAVRE	2582	924.8		63	31	47.2	4.6	86	24+	20	1	0	18			0.57	-0.40	0.32	6	2	T	T	9.7	W$	42	S	24	6	8	16	6.7	66
HELENA	3893	873.0	1016.5	61	33	47.2	3.9	85	19	20	8	0	12	26	50	0.90	0.07	0.59	6	2	8.7	8	9.5	W	46	W	7	3	16	11	6.7	65
KALISPELL	2965	911.3		60	32	45.8	3.6	79	19	23	26	0	18			1.05	0.01	0.50	8	1	3.1	1	7.4					2	9	19	7.2	
MILES CITY	2629			63	35	49.3	3.6	89	24	19	1	0	13	29	52	0.57	-0.49	0.25	5	0	T	T	11.0	NW	40*	NW	16+	9	10	11	5.7	
MISSOULA	3190	902.5	1018.1	61	30	45.4	1.1	81	19	23	30+	0	24	29	59	0.72	-0.25	0.28	6	0	T	T	7.0	NW	34	W	27	2	11	17	6.9	68
NEBRASKA																																
GRAND ISLAND	1841	949.7		65	37	50.9	- 0.2	87	20	18	2	0	10	33	57	0.52	-1.76	0.23	8	1	0.1	T	13.6	S				14	8	8	4.8	
LINCOLN U	1150			64	39	51.4	- 0.4	85	25+	23	2	0	9			0.79	-1.66	0.46	7	2	0.1	T	12.3	NW$	49	SW	21	14	7	9	4.8	71
NORFOLK	1544	959.8		62	35	48.6	0.2	90	21	17	2	1	13			1.04	-1.14	0.54	8	3	0.8	1						13	7	10	4.7	
NORTH PLATTE	2779	915.2	1014.9	65	34	49.6	1.9	89	25	14	2	0	14	30	52	0.51	-1.50	0.22	5	0	T	T	13.5	N	50	N	11	7	13	10	5.5	72
OMAHA	978	976.3	1016.8	63	39	50.9	- 0.8	85	21	24	15+	0	11	34	57	0.64	-1.92	0.19	11	1	0.9	T	13.1	NNW	42	SW	21+	10	11	9	5.0	65
OMAHA N OMAHA AP	1323	968.1		62	37	49.6	0.1	85	21	22	15+	0	11			0.51	-1.97	0.24	9	4	0.6	1						11	8	11	5.4	
SCOTTSBLUFF	3950	878.3	1014.9	66	35	50.2	4.1	88	20	15	1	0	12	28	47	0.29	-1.52	0.14	5	1	T	T	12.8	NW	46*	NW	7	11	7	12	5.5	
VALENTINE	2587	923.5		64	32	48.2	2.5	93	25	13	2	2	15	30	56	0.55	-1.43	0.40	5	1	0.4	T	12.3	N$	45	N	7	10	13	7	4.8	74
NEVADA																																
ELKO	5075	845.6	1017.0	65	31	48.0	3.7	83	19	17	29	0	18	25	45	0.26	-0.56	0.19	6	0	T	0	7.6	SW	32*	NW	19+	6	7	17	6.4	
ELY	6257	809.7	1015.7	64	31	47.4	4.8	78	19	18	30	0	20	23	44	0.18	-0.77	0.15	2	0	0.3	T	9.1	S	40	S	19+	9	9	12	5.9	81
LAS VEGAS	2162	946.8	1011.9	85	55	70.3	5.3	96	18	43	1	10	0	18	15	0.00	-0.23	0.00	0	0	0.0	0	10.7	SSW	44*	SW	19	12	9	9	4.7	92
RENO	4404	864.2	1018.1	72	29	50.1	2.6	83	17	20	30	0	25	28	46	T	-0.54	T	0	0	T	0	7.0	WNW	45	W	8	12	10	8	4.8	81
WINNEMUCCA	4299	868.9		68	32	50.1	4.2	82	14	20	29	0	17	26	45	0.27	-0.55	0.18	3	0	1.3	T	7.5	W	47	W	9	8	10	12	5.6	85
NEW HAMPSHIRE																																
CONCORD	339	1003.4	1014.3	59	32	45.3	1.5	91	27	16	4	1	18	28	58	2.13	-1.18	1.16	9	0	0.4	T	7.1	WNW	30	NW	24	6	14	10	6.2	55
MT WASHINGTON OBS	6262	799.3		29	16	22.5	- 0.5	52	28	2	3	0	26			4.47	-1.42	0.82	18	1	11.8	7	37.6	NW	126Y	SE	13	5	7	18	7.5	33
NEW JERSEY																																
ATLANTIC CITY	58	1013.9	1016.8	62	43	52.2	1.2	86	27	25	4	0	3	37	62	3.50	0.09	1.62	8	3	T	T	12.3	S	33*	NW	23	11	8	11	5.4	65
ATLANTIC CITY U	10			56	46	50.8	1.4	74	22	34	17	0	0			3.92	0.52	1.19	8				16.6		32*	W	23					

See footnotes at end of table

CLIMATOLOGICAL DATA

ENGLISH UNITS

State and Station	Elevation (ground)	Pressure		Temperature												Precipitation							Wind					No. of days (sunrise to sunset)			Sky cover, tenths (sunrise to sunset)	Possible sunshine
												No. of days							No. of days		Snow, Sleet				Fastest mile							
		Station Ø	Sea level	Average maximum	Average minimum	Average	Departure from normal	Highest	Date	Lowest	Date	Max. 90 F. or above	Min. 32 F. or below	Average dew point	Average relative humidity	Total	Departure from normal	Greatest in 24 hours	.01 inch or more	With thunderstorms	Total	Maximum depth on ground	Average speed	Prevailing direction	Speed	Direction	Date	Clear, 0-3	Partly cloudy, 4-7	Cloudy, 8-10		
NEW JERSEY	Ft.	Mb.	Mb.	°F.	°F.	F.	F.	°F.		°F.				°F.	%	In.	In.	In.			In.	In.	M.p.h.		M.p.h.							%
NEWARK	11	1014.7	1016.0	62	43	52.5	1.2	90	27	32	4	1	1	35	56	3.44	-0.07	1.27	10	1	T	T	10.4	SW	29*	NW	23	12	6	12	5.7	
TRENTON U	56	1008.4		63	43	52.9	1.2	87	27	31	4	0	2			3.77	0.56	1.65	11	2	T	T	10.7	S$	32	NW	23+	11	8	11	5.5	63
NEW MEXICO																																
ALBUQUERQUE	5310	847.3	1012.5	74	42	58.1	2.4	86	16	30	1	0	2	24	32	0.07	-0.40	0.06	2	1	0.0	0	8.8	NW	43	NW	8	12	10	8	4.5	87
CLAYTON	4969	845.6		68	38	52.5	1.8	84	20	19	2	0	6			0.50	-0.69	0.33	5	4	T	0						8	7	15	6.4	
RATON	6379	805.6		66	33	49.3	2.4	81	20	23	2	0	14			0.30	-0.76	0.17	4	3	0.8	T						6	12	12	6.3	
ROSWELL	3612	891.6		80	41	60.2	2.7	93	16	27	2	4	4	31	39	0.09	-0.64	0.07	2	0	0.0	0	11.0		32	NW	30	10	11	9	5.1	79
SILVER CITY	5373	835.4		75	42	58.6		88	17+	33	7+	0	0			0.19		0.19	1	1	0.0	0						17	7	6	3.6	
NEW YORK																																
ALBANY	277	1011.1	1014.9	58	36	47.0	0.8	91	27	21	4	1	11	33	62	3.25	0.48	0.95	11	1	4.6	4	10.0	WNW	41	W	25	5	8	17	7.2	58
BINGHAMTON	1590	954.9	1014.7	53	36	44.3	0.8	84	28+	20	3	0	16	33	70	3.34	0.40	0.89	14	2	7.4	6	9.8	WNW	30	SW	10	5	9	16	7.2	56
BUFFALO	705	987.4	1016.1	54	36	44.9	1.9	83	27	20	2	0	15	34	70	2.25	-0.76	0.49	14	1	4.5	4	16.3	SW	34	W	9	6	9	15	6.9	54
NEW YORK U	132	1003.9		62	44	53.3	1.9	91	27	34	17	1	0	35	55	3.00	-0.43	1.29	9	0	T	T	10.1	NW$	35	NW	23	12	9	9	5.0	58
NEW YORK	19	1013.8	1015.8	59	44	51.5	0.3	85	22	34	17	0	0	36	59	2.69	-0.88	1.22	10	1	T	T	13.0	NW	31	NW	23+	10	9	11	5.8	
ROCHESTER	543	996.4	1016.0	56	36	45.7	0.6	87	28	19	3	0	12	35	70	2.62	-0.05	0.69	10	1	7.6	6	13.0	WSW	51	SW	9	9	7	14	6.3	65
SCHENECTADY	217			58	36	47.0	0.7	91	28	24	4	1	9			2.91	0.07	0.80	10		2.5	3						13	12	5	4.4	
SYRACUSE	424	992.9	1015.1	57	37	47.3	1.3	89	28	25	3	0	10	33	63	3.57	0.49	0.89	13	1	5.7	4	11.0	WNW	42	W	23	8	8	14	6.4	48
NORTH CAROLINA																																
ASHEVILLE U	2203	938.8		64	42	52.9	- 3.1	87	30	29	16	0	9			3.25	0.06	1.58	10	3	T	T	8.7	NW$	34	SW	15	9	11	10	5.3	59
CAPE HATTERAS R	7	1017.6	1018.4	67	50	58.7	- 0.6	80	26	33	17+	0	0	49	70	7.10	4.81	3.17	12	3	0.0	0	11.9	S	44	NW	11	13	9	8	4.5	77
CHARLOTTE	735	990.1	1018.4	70	47	58.4	- 1.9	91	30	29	16	1	1	41	56	4.82	1.33	3.20	8	2	0.0	0	8.2	SW	30	SW	1	13	8	9	5.0	72
GREENSBORO	881	986.1	1018.4	68	43	55.4	- 2.0	87	30	29	16+	0	6	40	60	2.89	-0.54	1.21	10	3	0.0	0	9.3	SW	38	NW	13	13	9	8	5.0	67
RALEIGH	433	1004.0	1017.9	70	45	57.4	- 1.9	84	30+	29	17	0	4	40	58	3.22	-0.30	0.83	9	5	0.0	0	9.3	SSW	28*	NNW	8	11	10	9	4.8	67
WILMINGTON	30	1016.5	1019.4	72	49	60.8	- 1.7	87	23	35	17+	0	0	48	64	5.12	2.26	1.66	11	5	0.0	0	9.5	SSW	40	SW	1	13	8	9	4.9	71
WINSTON SALEM	967	982.8	1018.4	68	45	56.3	- 2.0	88	30	31	16	0	2	37	54	3.94	0.32	1.76	10	2	0.0	0	11.3	WSW	40*	NNE	30	13	9	8	4.8	
NORTH DAKOTA																																
BISMARCK	1647	955.4	1016.7	58	31	44.6	1.6	91	24	18	9	1	18	26	53	0.55	-0.67	0.32	6	1	1.2	1	11.0	NNW	34	S	20+	6	10	14	6.4	71
DEVILS LAKE U	1471	962.6		49	29	38.9	- 1.0	80	24	15	15+	0	16			0.56	-0.59	0.17	8	0	1.0	5	9.7	N$	34	NW	22	9	9	12	5.7	70
FARGO	900	982.3	1017.5	50	30	39.9	- 2.1	88	25	11	2	0	19	31	72	1.51	-0.21	0.49	6	1	2.0	3	12.2	NNW	60	NW	8	9	6	15	6.3	66
WILLISTON U	1899	947.0		59	31	45.2	2.4	90	24	15	12	1	17			0.38	-0.56	0.23	5	0	2.7	2	11.5	NW$	56	SW	29	5	9	16	6.6	64
OHIO																																
AKRON	1209	979.0	1017.7	58	38	48.3	1.2	84	30+	21	2	0	11	34	64	1.83	-1.51	0.44	15	2	3.8	1	9.9	SW	28	SW	22	4	13	13	6.8	
CINCINNATI OBS	761			64	44	53.9	- 0.3	88	30	27	16	0	3			0.91	-2.72	0.35	10	1	2.0	1	7.4	S	28	W	13					59
CINCINNATI U	553	994.9		65	45	55.2	0.3	88	30	30	16+	0	2			0.86	-2.78	0.21	11	1	1.9											
CLEVELAND	777	988.4	1016.7	58	37	47.4	0.8	85	27	20	17	0	12	35	65	1.78	-1.64	0.65	10	3	1.0	1	11.7	S	36	W	22	5	11	14	6.6	67
COLUMBUS	812	987.5	1017.8	60	37	48.7	- 2.6	85	30	22	16	0	13	33	59	1.33	-2.16	0.31	11	1	1.1	T	9.0	S	34	SW	9	6	12	12	6.5	60
COLUMBUS U	724			60	42	51.3	- 0.7	85	26	26	15	0	6			0.86	-2.47	0.20	12	2	0.3	T										
DAYTON	1002	980.9	1017.6	62	40	50.8	0.1	89	30	23	16	0	10	34	57	0.56	-2.76	0.13	9	2	0.2	T	11.3	NW	34	W	13	7	12	11	5.9	62
MANSFIELD	1296			58	38	48.0	1.1	82	30+	22	16	0	12			1.31	-2.00	0.43	9	1	1.4	1						4	10	16	6.9	
SANDUSKY U	606	994.8		59	42	50.7	2.2	88	30	30	17+	0	6			1.13	-2.02	0.30	9	2	0.5	T	10.3		58	NW	30	11	13	6	4.7	76
TOLEDO	676	991.4	1017.1	60	36	48.3	1.4	86	30	19	3	0	12	33	59	0.88	-1.89	0.17	9	2	T	T	10.9	WSW	51	NW	30	8	11	11	5.9	65
YOUNGSTOWN	1178	973.7	1017.1	56	38	46.9	- 1.1	83	27	18	3	0	11	33	62	2.31	-1.39	0.84	14	3	5.2	3	10.5	SW	35*	W	22	4	9	17	7.0	
OKLAHOMA																																
OKLAHOMA CITY	1280	973.2	1016.9	69	48	58.3	- 0.6	91	29	28	2	1	1	45	65	2.16	-0.96	1.01	8	3	0.0	0	13.2	SSE	41	NW	1	6	9	15	7.0	55
TULSA	676	992.4	1017.1	68	47	57.6	- 1.8	91	29	26	2	1	1	46	70	3.40	-0.62	1.48	10	2	0.0	0	10.9	SSE	27*	SSE	21	4	12	14	6.5	57
OREGON																																
ASTORIA	8	1019.6	1020.2	56	41	48.3	- 0.2	68	18	31	3	0	2	43	82	7.44	2.26	1.65	19	2	0.0	0	10.7	WSW	52*	SSW	27	2	3	25	8.5	
BURNS U	4151	874.0		64	31	47.7	1.7	78	14	15	29	0	17	28	48	0.23	-0.52	0.18	4	1	T	T						10	5	15	5.6	
EUGENE	361	1007.1		63	41	52.1	1.3	79	18	33	29+	0	0			3.06	0.68	1.58	10	0	T	0	9.0		38*	SW	27	5	9	16	7.0	
MEACHAM	4050			54	33	43.2	2.4	73	14	26	30+	0	18			2.68	-0.12	0.98	9	0	6.1	8						6	6	18	6.9	
MEDFORD	1298	972.2	1020.2	70	37	53.6	2.0	85	13	28	10	0	5	38	61	0.81	-0.25	0.37	6	0	0.0	0	5.8	WNW	24*	SW	27	7	12	11	5.8	
PENDLETON	1482	964.1	1018.0	66	42	53.8	2.3	82	23	34	16	0	0	34	50	0.76	-0.33	0.32	7	0	T	T	11.3	W	40*	W	19	8	9	13	5.7	
PORTLAND	21	1014.2	1019.8	62	43	52.6	0.8	80	18	35	10+	0	0	42	69	3.15	1.06	1.47	10	1	0.0	0	7.6	SSW	45	S	27	4	5	21	7.8	45

See footnotes at end of table

CLIMATOLOGICAL DATA

ENGLISH UNITS

State and Station	Elevation (ground)	Pressure: Station Ø	Pressure: Sea level	Temperature: Average maximum	Temperature: Average minimum	Temperature: Average	Temperature: Departure from normal	Temperature: Highest	Temperature: Date	Temperature: Lowest	Temperature: Date	Temperature: No. of days: Max. 90 F. or above	Temperature: No. of days: Min. 32 F. or below	Average dew point	Average relative humidity	Precipitation: Total	Precipitation: Departure from normal	Precipitation: Greatest in 24 hours	Precipitation: No of days: .01 inch or more	Precipitation: No of days: With thunderstorms	Snow, Sleet: Total	Snow, Sleet: Maximum depth on ground	Wind: Average speed	Wind: Prevailing direction	Wind: Fastest mile: Speed	Wind: Fastest mile: Direction	Wind: Fastest mile: Date	No. of days (sunrise to sunset): Clear, 0-3	No. of days (sunrise to sunset): Partly cloudy, 4-7	No. of days (sunrise to sunset): Cloudy, 8-10	Sky cover tenths (sunrise to sunset)	Possible sunshine
	Ft.	Mb.	Mb.	F.	F.	F.	F.	F.		F.				F.	%	In.	In.	In.			In.	In.	M.p.h.		M.p.h.							%
OREGON																																
PORTLAND U	30			63	45	53.6	0.1	81	18	39	28+	0	0			3.81	1.36	1.57	10		0.0	0										
ROSEBURG	505	1001.7		68	40	53.6	2.1	86	13	32	11+	0	2			1.62	-0.31	0.90	9	0	0.0	0	4.3	N$	19	NW	30+	6	10	14	6.6	59
SALEM	195	1013.2	1020.5	62	40	50.9	-0.2	78	18	29	10+	0	2	42	75	3.03	0.70	1.53	12	1	0.0	0	8.1	S	44*	S	27	4	8	18	7.3	
SEXTON SUMMIT R	3836	886.2		57	36	46.4	2.2	74	13	27	28+	0	13			1.82	-0.03	0.96	7	0	2.4	1	9.4	S				7	10	13	5.6	
PACIFIC AREA																																
CANTON ISLAND	8	1008.6	1009.0	88	77	82.4	-1.2	90	28+	71	24	2	0	75	80	5.62	2.00	1.81	17	0	0.0	0	10.6	E	26*	NE	15	7	19	4	5.2	
ENIWETOK	13	1009.1		87	78	82.7	0.6	89	5	75	29+	0	0	74	76	3.86	2.58	1.24	14	0	0.0	0	14.2									
TAGUAC GUAM R	361			85	72	78.5	-1.4	88	4	64	26+	0	0			8.66	5.63	2.29	19	2	0.0	0	7.6	E$	28	SE	20+					57
KOROR R	94	1005.1	1008.9	88	76	82.0	0.7	89	28+	75	17+	0	0	76	85	6.84	-3.55	2.54	20	2	0.0	0	6.7	NW	23	NW	17	0	3	27	9.4	55
KWAJALEIN	8	1008.5	1009.4	86	77	81.9	1.1	88	30+	73	10+	0	0	74	78	5.76	0.74	1.87	13	0	0.0	0	15.3	E	28*	ESE	14+	4	12	14	7.0	
MAJURO	10	1009.1	1009.4	86	78	81.7	1.1	88	30	74	24+	0	0	75	81	5.95	-6.36	1.66	18	0	0.0	0	11.9	ENE	34	E	4	2	13	15	7.5	72
PONAPE R	123	1003.5	1008.8	87	75	81.0	0.5	90	24	72	29+	1	0	75	84	11.94	-8.10	3.76	24	0	0.0	0	5.4	NE	22	E	9+	0	2	28	9.4	55
TRUK MOEN ISLAND	5	1008.2	1008.5	87	77	82.0	1.2	89	30+	73	28	0	0	75	81	6.98	-5.34	2.69	20	0	0.0	0	4.5	NNE	18	SW	18	0	13	17	8.0	35
WAKE ISLAND	11	1012.7	1013.1	84	74	79.2	0.8	86	30+	70	12	0	0	68	72	0.58	-1.29	0.23	5	0	0.0	0	9.7	ENE	23*	ENE	21	8	15	7	5.2	
YAP R	55	1006.0	1008.0	86	75	80.6	-1.2	88	30+	71	25	0	0	76	86	15.95	9.57	6.57	20	2	0.0	0	8.6	NE	34	NW	17	0	2	28	9.8	79
PENNSYLVANIA																																
ALLENTOWN	376	1001.8	1016.2	62	39	50.3	1.0	89	27	24	4	0	6	37	64	3.97	0.21	1.28	10	3	T	T	11.8	W	38*	NW	23	9	9	12	5.8	
ERIE	732	989.8	1016.4	55	38	46.5	1.0	83	28	21	3	0	11	34	65	1.84	-1.72	0.59	12	2	1.4	3	12.2	WSW	30*	SW	30+	9	8	13	5.8	
HARRISBURG	335	1002.0	1016.1	63	41	52.0	0.2	89	27	24	4	0	5	36	60	2.81	-0.21	1.17	11	2	T	T	9.1	W	34	W	23+	5	11	14	6.3	59
PHILADELPHIA	5	1011.6	1016.2	62	42	52.0	0.0	87	26	27	17	0	2	39	64	3.69	0.29	1.45	11	2	T	T	11.1	WSW	34	SW	23	9	8	13	6.2	59
PHILADELPHIA U	35			65	46	55.9	3.2	91	26	34	17+	2	0																			
PITTSBURGH	1151	986.5	1017.5	58	39	48.4	-0.6	85	27	22	17	0	9	34	61	3.03	-0.05	0.82	13	1	3.6	1	9.8	WSW	35*	NW	30	4	12	14	6.8	54
PITTSBURGH U	749			60	43	51.5	-0.7	87	27+	29	17+	0	6			3.39	0.02	0.95	14		0.1											47
READING U	266	1003.9	1016.2	63	44	53.2	0.6	89	27	28	4	0	3			3.88	0.46	1.32	10	2	T	T	11.5	W$	40	NW	23	8	10	12	5.9	63
SCRANTON	940	980.8	1015.9	59	39	49.0	1.6	89	27	22	4	0	10	33	58	2.59	-0.68	0.71	11	1	3.0	1	9.6	SW	33	W	14	9	5	16	6.3	53
WILLIAMSPORT	527	997.4	1016.6	62	38	49.7	0.3	90	26	22	4	1	9	35	61	3.00	-0.55	1.17	11	1	0.5	T	9.0	W	29*	SW	9	7	9	14	6.5	
RHODE ISLAND																																
BLOCK ISLAND	110	1010.5	1014.8	51	39	45.1	0.1	61	23	30	4	0	1			6.11	2.50	1.78	9	1	0.0	0						10	9	11	5.5	
PROVIDENCE	55	1008.7	1015.0	59	38	48.6	1.4	86	27	26	4	0	6	34	60	3.85	0.10	2.14	9	2	0.3	T	13.7	WNW	42*	NW	23	8	12	10	5.7	60
SOUTH CAROLINA																																
CHARLESTON	41	1017.0	1019.1	74	50	62.1	-2.2	87	30	32	16	0	1	49	67	2.52	-0.36	1.35	7	4	0.0	0	9.7	SSW	46Y	N	15	15	6	9	4.4	78
CHARLESTON U	9			71	55	63.0	-2.6	85	23	41	16	0	0			2.74	0.20	0.97	6		0.0	0	11.1		36	SW	13					
COLUMBIA	217	1006.0	1019.0	74	47	60.8	-2.8	93	30	32	21+	1	4	44	59	3.21	-0.80	1.49	11	5	0.0	0	6.9	WSW	29	NNW	11	15	5	10	4.2	71
FLORENCE	146	1012.7	1018.6	75	49	61.6	-1.9	94	30	32	16	1	1	44	58	3.09	-0.52	0.76	11	5	0.0	0	9.4	S	25*	NW	13	14	7	9	4.5	
GREENVILLE	1009	980.8	1018.2	72	46	59.0	-2.9	91	30	31	17+	1	3	41	57	5.37	1.47	2.48	10	6	0.0	0	8.2	WSW	29	W	13	14	7	9	4.4	69
SPARTANBURG	801	988.4	1018.4	70	46	58.3	-2.6	90	30	33	17+	1	0	39	55	5.76	1.78	3.14	8	3	0.0	0	8.6	WSW	29*	NW	19	14	7	9	4.5	
SOUTH DAKOTA																																
HURON	1282	968.8	1016.9	57	33	45.0	-1.0	93	25	18	15	1	15	35	74	2.02	0.18	0.86	8	3	3.2	4	15.1	SSE	42	SE	20	11	12	7	5.1	66
RAPID CITY	3165	900.7	1015.7	64	34	49.1	4.6	89	24+	18	2	0	14	28	52	0.69	-0.98	0.27	7	1	0.1	T	13.0	NNW	52	NW	7	9	11	10	5.7	64
SIOUX FALLS	1420	964.2	1016.6	58	34	45.7	-0.2	94	25	18	2	1	17	34	69	1.70	-0.61	0.72	10	4	4.2	3	11.6	NNW	31*	NW	8	11	9	10	5.3	
TENNESSEE																																
BRISTOL	1507	963.8	1018.7	64	41	52.5	-3.6	83	30	27	3	0	5	38	62	3.60	0.44	1.34	14	1	0.6	T	6.5	WNW	29*	NW	13	7	8	15	6.3	
CHATTANOOGA	670	990.8	1019.5	68	45	56.5	-3.4	88	30	30	3	0	4	42	65	4.46	0.17	2.28	12	5	0.0	0	7.6	S	42	NW	13	8	10	12	6.0	56
KNOXVILLE	950	983.6	1019.4	66	43	54.7	-4.7	88	30	29	3	0	5	38	57	3.84	0.34	2.19	9	4	T	T	8.9	SW	40	W	19	8	9	13	6.3	59
MEMPHIS	263	1003.8	1018.6	69	49	58.8	-3.1	84	30+	30	3	0	2	45	65	3.62	-1.01	1.93	12	7	0.0	0	9.3	S	34	SW	30	9	8	13	5.6	71
MEMPHIS U	271			68	51	59.5	-2.8	85	29+	36	3+	0	0			3.95	-0.67	2.43	10		0.0	0										
NASHVILLE	577	998.4	1018.8	67	45	56.0	-3.6	86	30	29	16	0	5	43	66	6.91	3.17	3.25	11	4	T	T	8.7	S	35*	NW	10+	6	12	12	6.4	56
OAK RIDGE	905	986.4		66	42	53.9	-4.4	86	30	26	3	0	7			3.94	-0.26	1.68	10	3	T	T	4.5		37Y		1	11	6	13	5.4	
TEXAS																																
ABILENE	1759	953.4	1014.6	76	52	64.0	-0.3	94	29	35	2+	3	0	48	62	1.37	-0.90	0.60	7	4	0.0	0	11.8	SSE	37	SE	26	8	9	13	6.1	68
AMARILLO	3607	888.4	1013.8	71	44	57.2	1.2	90	20	25	2+	1	4	38	56	1.48	0.16	1.31	6	3	0.0	0	14.5	S	35	N	7+	6	12	12	6.0	63
AUSTIN	597	994.2	1016.1	78	58	67.7	0.0	90	28	39	2	1	0	55	69	4.04	0.49	1.33	7	5	0.0	0	10.0	SSE	40	W	27	7	8	15	6.2	48
BROWNSVILLE	16	1012.8	1015.5	82	65	73.4	-0.5	92	30	46	1	3	0	64	76	1.21	-0.34	0.43	4	2	0.0	0	14.5	SE	34	SE	4	10	8	12	5.9	55

See footnotes at end of table

CLIMATOLOGICAL DATA
ENGLISH UNITS

State and Station	Elevation (ground)	Pressure		Temperature											Average relative humidity	Precipitation							Wind					No. of days (sunrise to sunset)			Sky cover, tenths (sunrise to sunset)	Possible sunshine
												No. of days							No. of days		Snow, Sleet				Fastest mile							
		Station ⊙	Sea level	Average maximum	Average minimum	Average	Departure from normal	Highest	Date	Lowest	Date	Max. 90 F. or above	Min. 32 F. or below	Average dew point		Total	Departure from normal	Greatest in 24 hours	.01 inch or more	With thunderstorms	Total	Maximum depth on ground	Average speed	Prevailing direction	Speed	Direction	Date	Clear, 0-3	Partly cloudy, 4-7	Cloudy, 8-10		
TEXAS	Ft.	Mb.	Mb.	F.	F.	F.	F.	F.		F.				F.	%	In.	In.	In.			In.	In.	M.p.h.		M.p.h.							%
CORPUS CHRISTI	43	1014.5	1016.0	81	63	72.0	0.3	96	28	40	1	3	0	63	76	1.18	-0.96	0.52	6	3	0.0	0	15.4	SSE	33	S	8	6	13	11	6.0	66
DALLAS	481	997.9	1016.5	73	55	64.0	- 1.0	86	29+	33	2	0	0	51	67	8.95	4.95	3.17	9	5	0.0	0	12.6	S	42	N	10	8	8	14	6.3	52
DEL RIO U	957			85	59	72.0	- 0.9	100	29	44	1	8	0			1.81	0.36	1.04	6	5	0.0	0										
EL PASO	3918	885.0	1011.3	82	53	67.3	3.9	93	16	37	1	6	0	25	23	0.10	-0.19	0.10	1	0	0.0	0	9.5	WSW	56	NW	7	15	11	4	3.6	91
FORT WORTH	544	995.5	1016.4	74	54	64.3	- 0.5	87	20+	33	2	0	0	51	66	5.66	2.06	2.44	9	5	0.0	0	14.4	S	46*	NNE	10	9	5	16	6.5	
GALVESTON U	7			72	64	67.8	- 0.7	78	30+	51	2	0	0			2.43	-0.16	1.01	9	0	0.0	0	13.2		40	SE	5	5	17	8		76
GALVESTON	5	1015.4	1017.7	73	63	68.3	- 0.3	81	30	48	1	0	0	60	77	2.49	-0.48	0.80	8	5	0.0	0	11.9	SE							6.0	
HOUSTON L	41			79	63	71.1	1.8	91	28	49	2	1	0			5.65	2.23	3.01	7		0.0	0										
HOUSTON	50	1014.2	1017.1	78	58	68.1	- 1.9	88	28	38	1	0	0	60	82	4.81	1.57	2.48	10	6	0.0	0	11.5	SSE				4	11	15	6.8	60
LAREDO	500	998.7	1014.2	88	63	75.5	0.3	101	29	50	2+	16	0	56	58	3.42	1.77	2.18	5	5	0.0	0	12.5	SE	37*	NNE	6	15	9	6	3.8	
LUBBOCK	3243	903.0	1014.6	75	46	60.4	0.9	91	16	29	1	1	3	43	59	1.20	0.05	0.80	3	4	0.0	0	16.7	SSE	46*	W	26	9	10	11	5.3	
MIDLAND	2854	914.4	1012.5	78	52	65.0	0.1	94	14	35	2	1	0	41	48	0.79	-0.04	0.30	3	4	0.0	0	13.3	SSE	43*	NW	26	12	8	10	5.1	
PORT ARTHUR	16	1015.8	1017.4	78	57	67.5	- 0.2	87	28	39	2+	0	0	59	80	2.21	-1.73	1.03	10	3	0.0	0	10.6	S	40	S	27	6	9	15	6.5	53
SAN ANGELO	1903	946.9	1013.6	80	53	66.3	- 0.3	94	29+	33	2	6	0	48	58	2.67	0.66	0.75	6	8	0.0	0	10.9	S	29*	S	16+	11	8	11	5.2	
SAN ANTONIO	792	990.6	1015.5	81	59	69.7	1.5	92	28	39	1	2	0	56	69	4.02	1.20	1.66	5	4	0.0	0	11.1	SE	29	NW	27	10	9	11	5.6	56
VICTORIA	104	1012.1		80	60	69.8	- 0.2	91	28	41	1	1	0			4.38	1.76	2.20	8	5	0.0	0	12.0		53Y	S	27	5	11	14	6.7	
WACO	500	995.0	1016.2	77	56	66.5	- 0.1	88	29+	36	2	0	0	54	67	2.95	-0.93	1.14	9	7	0.0	0	15.0	SSE	29*	SSE	21	7	9	14	6.3	
WICHITA FALLS	994	978.3	1015.3	74	50	62.0	- 1.0	94	29	29	2	1	1	48	64	4.61	2.08	2.05	7	2	0.0	0	10.4	S	40*	W	26	7	10	13	6.2	
UTAH																																
MILFORD	5028	843.9		70	32	50.6	2.9	85	18	20	30	0	17			0.21	-0.51	0.11	4	1	0.0	0						8	11	11	5.7	
SALT LAKE CITY	4220	868.3	1016.7	67	39	52.8	2.9	85	19	28	30	0	3	35	55	2.98	1.22	1.15	8	1	1.6	1	9.9	SSE	36	NW	5	6	6	18	6.5	70
WENDOVER	4237	871.0		67	43	54.8	3.2	88	19	32	30	0	1			0.49	-0.02	0.42	5	0	0.0	0						10	7	13	5.4	
VERMONT																																
BURLINGTON	331	998.8	1013.8	53	31	41.9	- 1.3	87	28	17	4	0	21	2[illegible]	61	2.59	-0.04	0.68	13	0	3.6	3	7.8	S	30	NW	24	5	8	17	7.0	50
VIRGINIA																																
LYNCHBURG	947	992.3		65	44	54.2	- 2.0	84	26+	31	3	0	2			2.44	-0.70	0.98	7	1	0.0	0	9.6		33	W	13	10	10	10	5.2	57
NORFOLK	26	1016.4	1017.8	67	46	56.4	- 1.6	85	26	30	4	0	1	44	69	4.49	1.33	1.41	9	3	T	T	12.3	SSW	44	SW	13	10	13	7	5.0	67
RICHMOND	162	1011.2	1017.6	71	44	57.5	0.4	91	26	31	4	1	2	41	60	3.80	0.65	1.07	9	2	0.0	0	9.2	SSW	28	W	13	8	13	9	5.4	68
ROANOKE	1174	975.3	1017.9	65	43	53.8	- 2.6	86	26	27	4	0	4	36	55	1.69	-1.41	0.46	9	2	T	T	10.6	WNW	39*	SW	9	10	12	8	5.3	
WASHINGTON																																
OLYMPIA	190	1012.5	1019.7	60	37	48.9	- 1.1	81	18	29	16+	0	6	41	76	4.50	1.54	1.58	17	0	0.0	0	8.1	SW	46*	SW	27	2	4	24	8.5	
SEATTLE TACOMA	400	1004.7	1018.9	58	42	50.0	0.8	77	18	36	28+	0	0	41	74	2.03	-0.37	0.68	11	0	0.0	0	10.9	SSW	45*	SSW	27	3	4	23	8.1	
SEATTLE	14		1018.9											41	69								6.6	SSW								
SEATTLE U	14			60	46	53.1	1.3	81	18	40	28	0	0			1.82	-0.15	0.81	12		0.0	0			62	SW	27					53
SPOKANE	2357	947.5	1016.3	62	37	49.8	2.5	80	14	29	8	0	6	33	56	1.02	0.11	0.89	6	1	T	0	10.9	SW	50	SW	6	5	10	15	6.7	69
STAMPEDE PASS R	3958	880.5		45	31	37.9	1.4	66	18	25	28	0	20			11.47	5.87	5.41	19	0	51.1	101						2	3	25	8.5	
TATOOSH ISLAND	101	1015.9	1018.8	51	43	47.0	- 0.5	57	18	37	27	0	0	42	83	10.20	4.97	2.92	19	0	0.0	0	15.2	S	73	E	27	2	1	27	8.7	28
WALLA WALLA U	949	981.4		66	45	55.5	1.7	83	23	38	28+	0	0			1.20	-0.20	0.56	7	0	0.0	0	6.0	WS	34	W	27	6	10	14	6.5	59
YAKIMA	1061	978.0	1017.2	68	36	51.9	1.4	82	18+	28	29	0	8	32	50	0.62	0.15	0.43	7	3	0.0	0	8.4	WNW	32*	NW	19	11	5	14	5.6	
WEST INDIES																																
SAN JUAN P.R. U	47			82	72	77.1	0.1	89	16	70	20+	0	0			4.64	0.75	1.08	16													
SAN JUAN P.R.	15	1014.1	1016.3	84	71	77.2	0.6	87	18+	68	21+	0	0	69	77	3.70	-0.02	0.94	18	0	0.0	0	8.1	ENE	28	NE	1	1	26	3	5.4	61
SWAN ISLAND	28	1012.6		85	77	80.9	- 0.6	88	14	70	21	0	0			1.18	0.34	0.71	5		0.0	0						0	15	15	7.4	
WEST VIRGINIA																																
CHARLESTON	939	981.9	1017.8	63	41	51.6	- 3.7	86	27	26	17+	0	6	37	63	4.12	0.44	1.11	14	2	T	T	6.6	WSW	32*	SW	13	4	11	15	6.9	
HUNTINGTON J	827	987.5	1018.1	63	41	52.0	- 4.7	85	27+	24	4+	0	9	36	60	4.06	0.50	1.68	10	1	T	T	7.3	WSW	27*	SW	1	5	12	13	6.7	
PARKERSBURG U	621			64	41	52.3	- 1.8	88	27	26	4	0	6			2.66	-0.59	0.89	13	1	0.2	T	6.6		30	NW	13					43
WISCONSIN																																
GREEN BAY	682	993.3	1016.3	54	33	43.4	0.7	87	26	20	16	0	15	31	66	2.55	0.09	0.90	9	1	T	T	11.3	NE	34	NE	12	9	7	14	6.1	53
LA CROSSE	652	991.6		56	35	45.4	- 1.6	86	26	19	2	0	14	32	63	1.69	-1.06	0.38	10	4	6.6	4	12.8	S	41*	SW	27	10	8	12	5.6	
MADISON	858	980.4	1016.4	56	34	45.0	0.6	84	26	19	16	0	14	32	64	1.43	-1.14	0.47	10	2	2.7	2	10.5	S	35	SE	8	9	7	14	6.1	59
MILWAUKEE	672	992.0	1017.6	55	34	44.5	0.9	85	26	21	3	0	16	33	68	1.49	-1.04	0.53	10	0	4.0	2	12.7	[illegible]NE	35	N	13	6	14	10	5.6	63

See footnotes at end of table

CLIMATOLOGICAL DATA

ENGLISH UNITS

State and Station	Elevation (ground)	Pressure		Temperature										Average dew point	Average relative humidity	Precipitation							Wind					No. of days (sunrise to sunset)			Sky cover, tenths (sunrise to sunset)	Possible sunshine
												No. of days							No. of days		Snow, Sleet				Fastest mile							
		Station Ø	Sea level	Average maximum	Average minimum	Average	Departure from normal	Highest	Date	Lowest	Date	Max. 90°F. or above	Min. 32°F. or below			Total	Departure from normal	Greatest in 24 hours	.01 inch or more	With thunderstorms	Total	Maximum depth on ground	Average speed	Prevailing direction	Speed	Direction	Date	Clear, 0-3	Partly cloudy, 4-7	Cloudy, 8-10		
WYOMING	Ft.	Mb.	Mb.	°F.	°F.	°F.	°F.	°F.		°F.				°F.	%	In.	In.	In.			In.	In.	M.p.h.		M.p.h.							%
CASPER	5319	836.8	1015.1	61	32	46.7	3.6	81	20+	19	1	0	16	26	53	0.93	-0.76	0.57	5	0	1.1	2	11.3	WSW	46*	NW	28	8	8	14	6.0	
CHEYENNE	6126	812.4	1014.9	60	32	45.6	4.0	79	24	15	8+	0	16	25	50	0.54	-1.34	0.14	6	0	2.5	3	13.1	WNW	45	W	7	7	10	13	6.2	65
LANDER	5563	834.4	1014.5	61	33	47.1	3.9	82	19	22	12+	0	15	25	48	1.91	-0.54	1.24	7	2	2.8	2	7.8	WSW	38	W	7+	6	16	8	5.7	81
SHERIDAN	3942	884.5	1011.6	61	34	47.4	3.8	84	24	19	2	0	15	29	53	1.04	-1.12	0.71	9	0	1.1	3	7.7	NW	59	NW	7	8	10	12	5.8	74

Data from airport unless otherwise specified. U indicates Urban, R indicates Rural, sites.
* Data entered in column "Fastest Mile" is the fastest mile observed. This station is not equipped with automatic wind recording instrument.
Ø Station pressures apply to elevations shown in the "Elevations - Station Pressure" table of the annual issue of this publication.

A Maximum hourly average.
+ And also on an earlier date or dates.
B Number of days maximum 70°F. or above for Alaskan Stations.
$ Wind direction to 8 compass points only.
Y Peak Gust.

CLIMATOLOGICAL DATA

METRIC UNITS

State and Station	Elevation (ground)	Pressure		Temperature											Average relative humidity	Precipitation							Wind					No of days (sunrise to sunset)			Sky cover, tenths (sunrise to sunset)	Possible sunshine
												No. of days							No of days		Snow, Sleet				Fastest mile (1 6 kilometers)							
		Station	Sea level	Average maximum	Average minimum	Average	Departure from normal	Highest	Date	Lowest	Date	Max 32 2 °C or above	Min. 0 C or lower	Average dew point		Total	Departure from normal	Greatest in 24 hours	.25 mm or more	With thunderstorms	Total	Maximum depth on ground	Average speed	Prevailing direction	Speed	Direction	Date	Clear, 0-3	Partly cloudy, 4-7	Cloudy, 8-10		
	M.	Mb.	Mb.	C.	C.	C.	C.	C		C.				C	%	Mm.	Mm.	Mm			Mm	Mm.	M p.s		M p s							%
ALABAMA																																
BIRMINGHAM	186	994.1	1019.6	23.3	10.6	16.8	0.1	31.1	30	0.0	16	0	1	7.8	60	76	- 38	30	10	4	0	0	4.5	S	16.1	SE	28	15	2	13	5.2	62
HUNTSVILLE	184	995.6	1019.2	21.1	8.9	14.8	-1.6	31.7	30	- 1.1	16	0	3	6.1	61	116	15	48	12	9	0	0	3.5	ESE	16.5*	WSW	11	9	10	11	5.7	
MOBILE	64	1017.3	1019.7	24.4	13.3	18.7	-0.6	29.4	20	3.3	16	0	0	13.3	75	48	-114	28	5	3	0	0	4.8	SSE	13.0*	SSW	29	10	11	9	5.4	
MONTGOMERY	59	1011.4	1019.8	23.3	10.6	16.9	-0.9	29.4	30	2.2	2	0	0	10.0	67	163	39	108	5	5	0	0	3.1	S	12.5	W	28	15	5	10	4.6	67
ALASKA												B																				
ANCHORAGE	27	1003.1	1008.2	7.2	- 1.7	2.7	0.7	10.0	22+	- 4.4	10	0	27	- 3.9	65	6	- 4	3	5	0	76	51	2.5	N	13.9*	NW	28	6	4	20	7.3	51
ANNETTE	34	1008.1	1012.0	8.9	3.3	6.3	0.2	14.4	1	0.6	10	0	0	2.2	80	310	78	45	24	0	T	0	5.1	SSE	13.9*	SSE	12+	1	4	25	8.6	
BARROW	7	1019.0	1019.5	-13.9	-23.3	-18.8	-1.1	- 2.2	24	-35.6	2	0	30	-22.8	69	7	4	4	7	0	91	762	4.8	ENE	13.0*	SE	5	10	6	14	5.9	
BARTER ISLAND	12	1017.6	1019.6	-12.8	-23.3	-18.1	-0.8	1.1	10	-32.8	2	0	30	-21.1	72	3	- 1	1	8	0	48	305	5.9	ENE	17.0*	W	7	14	4	12	5.2	
BETHEL	38	1012.9	1014.4	- 1.1	- 8.3	- 4.8	-1.4	6.7	5+	-19.4	13+	0	29	- 7.2	83	7	- 8	3	7	0	84	51	7.1	NW	14.3*	NW	27	11	3	16	5.8	
COLD BAY	29	1011.5	1015.9	1.7	- 2.2	- 0.1	-0.8	6.7	5	- 7.2	12	0	26	- 2.2	85	19	- 18	8	10	0	74	25	8.0	NNW	17.0*	NW	19	0	0	30	9.8	
CORDOVA	12	1005.8	1007.4	7.8	- 1.1	3.4	1.1	11.7	27	- 6.7	10	0	19	- 0.6	77	70	- 40	26	10	0	T	229	3.0	ESE	10.7*	ESE	2	6	4	20	7.3	
FAIRBANKS	133	993.9	1011.2	3.3	- 5.6	- 1.1	0.4	11.1	2	-12.8	6	0	30	- 6.1	69	10	3	5	7	0	193	457	3.7	N	10.3*	WSW	7	7	4	19	7.4	
JUNEAU	5	1008.8	1009.5	8.3	0.0	4.2	0.9	13.9	27	- 3.3	2	0	16	0.0	78	51	- 22	9	17	0	46	51	3.9	ESE	17.9*	ESE	12	1	6	23	8.7	44
KING SALMON	13	1007.8	1009.8	4.4	- 3.9	0.2	-0.2	10.0	6	-11.7	13	0	29	- 3.9	75	20	4	6	4	0	157	76	5.0	NNW	16.5*	E	1	7	7	16	6.6	
KOTZEBUE	3	1014.9	1015.7	- 5.0	-16.7	-11.0	-0.6	3.3	2	-30.6	13	0	30	-13.9	78	7	- 1	3	7	0	150	635	4.9	WNW	13.4*	NW	27+	11	5	14	5.8	
MC GRATH	102	999.3	1012.6	2.2	- 8.3	- 3.0	-0.6	10.0	24+	-21.1	14	0	29	- 8.9	62	10	- 2	7	7	0	234	559	4.2	NNW	11.2*	W	25+	7	7	16	6.4	
NOME	4	1014.9	1015.7	- 2.8	-12.2	- 7.6	-1.6	3.9	1	-27.2	12	0	29	-10.0	78	4	- 16	1	8	0	36	914	5.3	N	16.5*	NW	27	13	8	9	5.1	54
ST. PAUL ISLAND	7	1017.6	1019.0	0.6	- 3.9	- 1.7	0.3	3.9	27+	-11.1	12	0	29	- 2.8	89	27	2	18	9	0	124	51	7.6	NW	20.6*	NNW	18+	1	2	27	9.3	
SHEMYA	37	1022.4	1026.2	4.4	1.1	2.8	0.8	6.1	30	- 2.8	1	0	6	1.7	92	9	- 44	3	11	0	8	T	8.6	SSW	19.2*	S	25	1	1	28	9.5	
YAKUTAT	9	1007.1	1008.2	7.2	- 1.1	3.1	0.3	12.2	12	-13.3	10	0	18	0.6	83	199	15	38	19	0	157	203	3.2	ENE	14.3*	ESE	13+	3	5	22	8.2	
ARIZONA																																
FLAGSTAFF	2131	790.4	1016.7	18.3	- 1.1	8.7	2.4	25.6	18	- 7.2	1	0	18	- 6.7	39	2	- 28	2	2	2	0	T	3.5	SSW	13.[illegible]*	NNE	6	13	8	9	4.6	
PHOENIX	338	972.9	1011.5	32.8	12.2	22.4	2.0	38.3	15	6.7	3	16	0	- 0.6	23	0	- 8	0	0	0	0	0	2.3	E	8.0*	WSW	28+	16	6	8	3.8	96
PRESCOTT	1528	846.9	1014.1	24.4	4.4	14.4	2.7	30.6	18	- 1.1	1	0	2	- 6.7	26	T	- 18	T	0	0	0	0	3.7	S	17.9	S	28	14	9	7	4.0	91
TUCSON	788	924.5	1011.4	30.0	12.2	21.2	2.6	35.6	19+	6.7	1	10	0	- 3.3	21	T	- 7	T	0	1	0	0	4.7	SSE	13.4	S	25	19	5	6	3.0	97
WINSLOW	1487	851.3	1012.3	25.0	4.4	14.7	1.3	31.1	19+	- 2.2	1	0	2	- 6.7	26	T	- 11	T	0	0	0	0	5.1	SW	16.5*	SW	28	15	6	9	4.7	
YUMA	61	1006.1	1011.3	35.0	15.6	25.2	2.5	41.1	13	10.0	1	22	0	- 0.6	23	0	- 2	0	0	0	0	0	3.4	SSE	11.2	N	6	16	6	8	3.6	96
ARKANSAS																																
FORT SMITH	137	1001.0	1018.0	21.7	8.9	15.3	-1.2	33.9	29	- 2.2	2	2	2	7.8	65	57	- 51	39	8	4	0	0	3.4	ENE	17.0	SW	30	7	10	13	6.5	51
LITTLE ROCK	78	1004.9	1018.3	21.7	8.9	15.3	-1.6	30.6	29	- 1.1	2	0	1	8.3	65	74	- 52	26	11	3	0	0	3.9	SE	15.2	S	27+	8	10	12	5.9	58
TEXARKANA	110			22.2	11.1	16.8	-0.9	30.0	29	1.1	2	0	0	11.1	74	86	- 48	27	9	4	0	0	4.1	ENE								
CALIFORNIA																																
BAKERSFIELD	151	999.7	1017.2	26.7	11.1	18.8	1.6	35.0	23	5.6	20	5	0	6.7	48	1	- 20	1	1	0	0	0	3.4	NNW	16.5*	NNW	19	11	14	5	4.2	
BISHOP	1252	874.4		26.1	3.9	14.9	2.1	31.1	18	- 1.7	30	0	3			0	- 12	0	0	0	0	0						15	7	8	3.9	
BLUE CANYON	1609	840.8		14.4	5.6	9.9	2.7	20.6	6	- 2.8	20	0	4			69	- 54	43	4	1	122	1448	3.3	SSW	14.8	SSW	27	16	2	12	5.0	
BURBANK	213	989.8	1015.5	24.4	11.7	18.1	1.9	34.4	6	7.2	26	4	0	7.2	57	T	- 31	T	0	0	0	0	3.6	S	14.3*	NNW	20	9	12	9	5.2	
EUREKA U	13	1019.6		12.8	7.2	10.2	0.0	18.9	13	4.4	30	0	0			67	- 1	29	10	0	0	0	3.2	N$	15.6	S	27	7	8	15	6.8	57
FRESNO	99	1004.4	1016.3	26.7	9.4	18.2	2.2	35.0	13	6.1	30+	4	0	6.1	52	1	- 28	1	1	0	0	0	3.0	NW	14.8	NW	19	17	11	2	3.3	97
LONG BEACH	10	1014.9	1016.2	22.8	11.1	16.9	1.5	33.3	6	7.8	5	2	0	10.0	71	T	- 20	T	0	0	0	0	3.0	W	9.4*	WSW	20	7	13	10	5.8	
LOS ANGELES	30	1012.5	1016.4	20.0	11.7	15.8	1.4	31.7	6	9.4	26+	0	0	10.6	75	0	- 27	0	0	0	0	0	3.2	WSW	12.5*	NNW	20	6	14	10	5.9	
LOS ANGELES U	95			23.9	12.2	17.9	1.4	32.8	6	8.9	1	1	0	9.4	64	T	- 30	T	0	0	0	0	2.5	W$	13.4	NW	20	9	15	6	4.6	77
MT SHASTA R	1080	894.7		18.9	2.2	10.6	1.9	25.6	22+	- 2.8	30+	0	7			13	- 57	7	2	0	T	0						20	6	4	3.2	
OAKLAND	1	1018.6	1018.8	20.0	9.4	14.7	1.1	30.0	12	5.6	29	0	0	7.2	66	7	- 28	4	2	0	0	0	4.0	WNW	13.9*	WNW	24+	14	9	7	4.2	
POINT ARGUELLO	112	1003.7		15.0	7.8	11.4	-0.7	23.9	6	2.8	30	0	0			2	- 22	2	1	0	0	0	4.3		11.6*	NW	28+	12	5	13	5.6	
RED BLUFF	104	1004.1	1016.8	25.6	10.0	17.7	1.9	31.7	11	4.4	29+	0	0	4.4	46	4	- 43	4	1	0	0	0	4.2	WNW	19.2	SE	27	14	7	9	4.2	90
SACRAMENTO	5	1016.6	1017.7	25.0	7.8	16.3	0.8	31.7	23	3.9	28+	0	0	7.8	64	4	- 32	4	2	0	0	0	3.2	SW	13.9	W	24	16	8	6	3.6	93
SACRAMENTO U	7			25.0	9.4	17.3	1.6	32.2	13	5.6	29	1	0			5	- 36	4	2		0	0										
SANDBERG R	1377	863.9		18.3	7.8	13.2	2.7	26.1	13	- 1.7	20	0	2			0	- 25	0	0	0	0	0	6.6	N	27.7*	N	25	14	10	6	4.2	
SAN DIEGO	4	1012.5	1015.9	21.1	12.2	16.6	0.4	29.4	7	10.0	21+	0	0	10.6	74	T	- 20	T	1	0	0	0	3.4	NW	9.8	NW	20	5	14	11	6.1	61
SAN FRANCISCO	2	1018.6	1019.4	18.3	8.3	13.3	0.2	28.3	12	5.6	16	0	0	7.8	75	9	- 24	6	2	0	0	0	5.5	WNW	17.4	WNW	8	14	9	7	4.1	
SAN FRANCISCO U	16			17.8	10.0	13.9	0.7	27.8	12+	7.8	23	0	0			9	- 27	5	2	0	0	0	4.4	W$	13.0	W	30					83
SANTA MARIA	73	1009.5	1018.1	20.0	7.2	13.6	0.4	31.1	7	2.2	29	0	0	8.9	79	1	- 29	1	1	0	0	0	3.9	WNW	14.3*	WNW	25	15	7	8	4.0	
COLORADO																																
ALAMOSA	2297	770.4		16.7	- 2.8	6.9	1.4	23.9	16+	-14.4	1	0	27			3	- 15	2	3	3	T	152						8	15	7	5.4	
COLORADO SPRINGS	1882	797.5	1016.7	16.7	1.1	8.9	1.7	26.1	25+	- 7.2	2	0	14	- 3.3	52	11	- 22	5	9	1	51	T	3.8	N	11.2*	N	6	6	12	12	6.2	
DENVER	1610	837.1	1014.4	17.8	2.2	10.2	1.6	28.3	20	- 9.4	1	0	11	- 3.3	45	28	- 26	17	10	1	254	51	3.8	SSW	21.5	W	7	8	12	10	5.8	67
GRAND JUNCTION	1478	855.4	1013.8	20.6	5.6	13.1	1.8	30.0	19	- 1.1	1	0	3	- 5.0	35	25	6	12	8	2	43	51	3.0	ESE	19.2	N	7	9	11	10	5.3	78

See footnotes at end of table

CLIMATOLOGICAL DATA

METRIC UNITS

State and Station	Elevation (ground)	Pressure		Temperature											Average relative humidity	Precipitation							Wind					No. of days (sunrise to sunset)			Sky cover, tenths, sunrise to sunset	Possible sunshine
												No of days							No of days		Snow, Sleet				Fastest mile							
		Station O	Sea level	Average maximum	Average minimum	Average	Departure from normal	Highest	Date	Lowest	Date	Max 32.2 °C or above	Min. 0 C or lower	Average dew point		Total	Departure from normal	Greatest in 24 hours	25 mm or more	With thunderstorms	Total	Maximum depth on ground	Average speed	Prevailing direction	Speed	Direction	Date	Clear 0-3	Partly cloudy 4-7	Cloudy 8-10		
	M	Mb	Mb.	C	C.	C	C	C		C.				C.	%	Mm	Mm	Mm			Mm	Mm	M p.s		M p.s							%
COLORADO																																
PUEBLO	1414	855.7	1014.6	20.0	3.3	11.5	1.1	30.0	20+	- 3.9	2	0	7	- 0.6	52	36	6	18	6	2	71	51	4.5	N	23.2	W	7	7	12	11	5.7	71
CONNECTICUT																																
BRIDGEPORT	2	1015.4	1016.4	13.9	3.9	8.8	-0.1	27.8	25	- 3.3	4	0	5	2.2	68	85	- 12	46	8	1	T	T	6.4	W	24.6	NW	23	7	10	13	6.1	
HARTFORD	52	1008.7	1014.8	16.7	1.7	9.1	0.4	34.4	27	- 5.0	4+	1	10	0.6	61	85	- 10	41	9	1	T	T	4.3	S	17.9	NW	9	7	8	15	6.6	59
NEW HAVEN	2	1015.4		13.9	3.3	8.5	0.2	27.2	25	- 3.3	4	0	7			96	- 3	61	9	1	T	T	3.9		17.0	NW	23	10	6	14	6.1	58
DELAWARE																																
WILMINGTON	24	1013.2	1016.5	17.2	5.6	11.2	0.1	29.4	27+	- 2.8	17	0	4	3.9	64	89	4	29	12	2	T	T	4.8	NW	12.5*	WNW	23	9	8	13	5.8	
DIST.OF COLUMBIA																																
WASHINGTON U	22			19.4	8.9	14.2	1.6	32.2	27+	0.6	17	2	0			66	- 15	32	10													
WASH NATL AP	4	1012.7	1017.3	18.9	8.3	13.5	0.3	30.6	27+	0.0	4	0	1	3.9	57	74	- 6	19	10	4	0	0	4.0	S	14.8	NW	15	7	12	11	5.5	62
FLORIDA																																
APALACHICOLA U	4	1017.6		22.2	14.4	18.4	-1.3	27.8	30	7.2	16	0	0			50	- 59	26	5	4	0	0	3.6		14.3	E	29	16	8	6	3.9	86
DAYTONA BEACH	9	1018.4	1020.3	25.6	13.3	19.4	-1.1	31.7	11	3.9	17	0	0	12.8	67	20	- 56	11	4	2	0	0	4.3	ESE	11.2*	ESE	5	11	7	12	5.4	
FORT MYERS	4	1018.5		28.9	16.1	22.4	-0.3	33.3	30+	7.2	17	4	0			35	- 32	20	4	2	0	0	4.2		10.3*	WSW	1	8	12	10	5.8	
JACKSONVILLE	7	1018.7	1020.3	26.7	13.3	19.8	-0.6	33.3	30	3.3	17	3	0	10.6	61	60	- 30	36	6	3	0	0	3.8	NW	17.9	W	12	14	9	7	4.4	78
KEY WEST	2	1017.0	1018.3	27.2	21.7	24.3	-0.1	29.4	27+	17.8	17	0	0	17.8	69	23	- 40	10	5	3	0	0	6.0	ESE	13.0	N	14	8	8	14	6.4	82
LAKELAND U	65			26.7	15.6	21.1	-0.9	33.3	28	8.9	17+	2	0			30	- 59	15	4	4	0	0	3.4					9	14	7	5.0	74
MIAMI BEACH	3			26.1	21.1	23.7	-0.2	30.6	8	14.4	17	0	0			55	- 20	18	6		0	0	4.2		11.6	SE	11	4	14	12	6.4	51
MIAMI	2	1017.2	1018.6	26.7	18.9	22.8	-0.6	30.6	9+	11.7	17	0	0	16.1	67	30	- 68	12	5	1	0	0	5.2	ESE	10.3*	NE	21+	2	13	15	6.9	
ORLANDO	32	1015.3	1020.0	27.8	15.0	21.3	0.1	33.9	28+	7.2	17	6	0	12.8	64	40	- 47	21	6	3	0	0	4.5	ESE	9.4*	S	7+	11	10	9	5.1	
PENSACOLA U	4			22.2	13.9	18.2	-1.3	27.2	24	5.0	3	0	0			86	- 56	46	7	4	0	0	4.4		10.7	SE	5					79
TALLAHASSEE	18	1017.5	1020.2	25.6	11.1	18.4	-1.3	33.9	30	1.1	17	1	0	12.2	72	61	- 57	34	8	5	0	0	4.5	S	13.0*	S	6	13	11	6	4.6	
TAMPA	6	1018.4	1020.0	26.7	15.0	20.8	-1.1	31.7	30+	6.1	17	0	0	12.8	65	36	- 36	23	2	3	0	0	5.3	N	12.1*	NNW	13	14	6	10	4.9	72
WEST PALM BEACH	5	1018.1	1019.3	27.2	18.3	22.6	-0.7	30.0	13	10.6	17	0	0	16.1	68	48	- 62	27	7	3	0	0	5.0	SE	11.2*	E	5	3	15	12	6.8	
GEORGIA																																
ATHENS	245	990.8	1019.5	21.1	7.8	14.4	-1.8	30.6	30	- 1.1	3	0	3	6.7	64	158	46	43	11	6	0	0	4.0	WNW	12.1*	S	25	13	7	10	4.8	
ATLANTA	306	977.0	1019.0	20.6	8.3	14.3	-1.8	29.4	30	- 0.6	2	0	2	6.7	65	151	38	89	10	4	0	0	3.8	WNW	10.7*	W	13	15	4	11	4.6	62
AUGUSTA	44	1012.2	1019.2	23.3	8.9	15.9	-1.4	32.8	30	0.0	16	1	1	8.9	67	130	39	50	9	5	0	0	3.4	SE	17.4*	NW	11	13	7	10	4.9	
COLUMBUS	117	1000.5		23.3	8.9	16.2	-1.4	31.7	30	0.0	3	0	1			142	25	76	8	5	0	0	4.3		15.6*	NNW	28	16	6	8	4.2	
MACON	109	1005.8	1019.6	23.9	10.0	17.0	-1.7	33.9	30	1.1	16	1	0	7.2	60	124	29	46	10	6	0	0	4.9	NW	14.8	S	11	15	4	11	4.5	64
ROME	194	996.1		20.6	6.1	13.4	-2.1	31.1	30	- 2.2	21+	0	6			135	19	85	10	5	T	T						12	7	11	5.4	
SAVANNAH	15	1017.6	1020.4	23.9	10.6	17.4	-1.3	32.8	30	0.0	16	1	1	10.0	67	77	- 17	24	9	5	0	0	4.7	W	13.0	W	12	14	6	10	4.5	78
THOMASVILLE U	86			25.0	12.2	18.7	-1.2	33.3	30	3.3	16	1	0			181	63	146	6	4	0	0						17	6	7	3.8	
HAWAII																																
HILO	9	1015.6	1017.8	27.2	18.3	22.9	0.9	30.0	26+	16.1	15	0	0	17.8	76	74	-228	12	22	0	0	0	3.9	WSW	11.2*	SE	24	3	12	15	7.2	53
HONOLULU	2	1016.9	1017.3	28.3	21.1	24.7	1.2	30.0	22	18.3	5	0	0	17.8	69	27	- 6	24	7	0	0	0	5.6	ENE	14.3	NE	15	5	17	8	6.0	75
LIHUE	35	1012.5	1017.9	27.2	20.6	23.8	1.3	29.4	23+	17.8	6	0	0	18.9	75	225	140	88	15	2	0	0	5.4	NE	18.8	S	25	3	17	10	6.8	62
IDAHO																																
BOISE	865	920.4	1016.7	19.4	3.3	11.3	1.4	30.0	14	- 2.8	29	0	7	- 0.6	49	23	- 6	10	7	0	T	0	4.6	SE	15.2	W	19	8	11	11	5.8	86
IDAHO FALLS 42NW R	1460			16.1	- 1.7	7.3	1.2	28.9	19	- 7.8	29+	0	23			2	- 10	2	2													
IDAHO FALLS 46W R	1504	848.3		16.7	- 1.1	7.7	1.4	27.8	19	- 6.1	30+	0	22			6	- 7	6	2	0	0	0	3.8	SW	16.5A	WSW	7					
LEWISTON	431	965.8		19.4	5.0	11.9	1.5	28.9	14	0.6	11	0	0			11	- 18	4	6	0	T	0						6	9	15	6.8	
POCATELLO	1355	863.5	1017.1	17.2	2.2	9.6	1.5	28.3	19	- 3.3	30	0	9	- 1.7	51	19	- 8	13	5	1	8	T	5.5	WSW	18.8	SW	19	5	10	15	6.6	73
ILLINOIS																																
CAIRO U	96	1005.5		18.9	9.4	14.1	-1.1	28.9	30	0.6	3	0	0			101	- 3	33	11	3	5	T	4.0	S$	18.8	S	30	8	10	12	6.1	60
CHICAGO O HARE	201	991.6	1016.6	15.0	3.9	9.3		29.4	26	- 4.4	16	0	7	0.6	59	29		11	9	2	18	T	6.4	SW	16.5*	WSW	9	9	8	13	5.8	
CHICAGO MIDWAY	186	993.9	1017.0	15.6	4.4	9.9	0.4	31.1	30+	- 3.3	16	0	7	0.6	56	40	- 38	13	11	3	8	T	5.6	SW	20.1	W	9	8	8	14	5.9	65
MOLINE	177	994.0	1016.5	16.1	2.8	9.6	-0.4	30.6	26	- 6.1	3	0	10	1.1	61	62	- 19	26	11	2	5	T	4.7	NW	16.5	W	9	9	12	9	5.6	64
PEORIA	199	995.3	1017.8	16.7	3.3	10.1	-0.3	29.4	26	- 5.0	3	0	9	1.7	61	23	- 78	10	10	3	28	25	5.3	S	17.9	W	30	9	9	12	5.6	65
ROCKFORD	222	989.0	1016.7	15.0	2.8	8.7	-0.1	29.4	26	- 5.6	3	0	11	0.6	61	61	- 16	17	12	3	28	25	5.5	SSW	17.0*	WSW	24	11	8	11	5.3	
SPRINGFIELD	179	994.0	1017.5	18.3	4.4	11.5	0.2	31.1	26	- 3.9	3	0	8	2.8	59	33	- 58	33	11	1	8	T	5.4	S	26.8	W	30	9	11	10	5.6	64
INDIANA																																
EVANSVILLE	116	1002.4	1018.5	19.4	7.2	13.2	0.1	30.0	30+	- 2.2	16	0	3	3.3	54	32	- 69	8	8	1	3	0	3.7	NW	19.2	SW	30	6	13	11	6.2	68
FORT WAYNE	241	985.8	1017.5	16.1	3.3	9.7	0.7	30.6	30	- 4.4	3	0	10	1.7	61	33	- 47	13	9	1	8	T	5.5	WSW	28.2	W	30	8	12	10	5.6	72

See footnotes at end of table

CLIMATOLOGICAL DATA

METRIC UNITS

State and Station	Elevation (ground)	Pressure		Temperature								No. of days			Average relative humidity	Precipitation			No. of days		Snow, Sleet		Wind		Fastest mile (1.6 kilometers)			No. of days (sunrise to sunset)			Sky cover, tenths (sunrise to sunset)	Possible sunshine
		Station O	Sea level	Average maximum	Average minimum	Average	Departure from normal	Highest	Date	Lowest	Date	Max 32.2 °C or above	Min. 0 °C or lower	Average dew point		Total	Departure from normal	Greatest in 24 hours	25 mm or more	With thunderstorms	Total	Maximum depth on ground	Average speed	Prevailing direction	Speed	Direction	Date	Clear, 0-3	Partly cloudy, 4-7	Cloudy, 8-10		
	M	Mb.	Mb.	C.	C.	C.	C.	C.		C.				C.	%	Mm.	Mm.	Mm.			Mm.	Mm.	M.p.s.		M.p.s							%
INDIANA																																
INDIANAPOLIS	242	987.4	1017.8	16.1	5.0	10.6	0.2	30.6	30	-3.3	16+	0	8	2.8	62	43	-52	24	8	1	T	T	4.0	WSW	14.3*	NW	30	11	9	10	5.5	69
SOUTH BEND	234	988.3	1016.8	14.4	2.8	8.7	0.1	30.0	30+	-5.0	3	0	14	1.1	64	59	-31	28	9	2	46	25	5.8	SSW	24.6*	W	30	7	11	12	5.8	
IOWA																																
BURLINGTON	212	991.6	1017.5	16.7	3.9	10.4	-0.1	30.0	26	-4.4	3	0	10	1.7	60	28	-60	14	10	2	5	T	5.5	NW	14.3	NW	9+	10	11	9	5.4	70
DES MOINES	289	985.8	1017.6	15.6	3.9	9.6	-0.3	28.9	26+	-4.4	7	0	11	1.7	63	64	-1	31	10	3	23	25	3.9	NW	15.2	NW	12	9	6	15	6.1	56
DUBUQUE	325	991.0		13.3	2.2	7.7	-0.5	28.3	26	-8.9	3	0	12			103	25	27	10	0	198	152						12	3	15	5.5	
SIOUX CITY	334	975.1	1017.0	16.7	2.8	9.7	0.3	32.8	25	-5.6	15	2	12	1.7	65	25	-32	9	8	3	41	25	5.4	NNW	17.9	NW	8	11	10	9	4.9	67
WATERLOO	265	984.6	1017.1	13.9	2.2	8.1	-0.7	28.9	26+	-7.2	2	0	14	1.1	67	52	-17	15	11	3	56	51	5.5	NW	13.4*	SE	20+	11	5	14	5.9	
KANSAS																																
CONCORDIA U	419	966.5		18.3	5.0	11.8	-0.1	28.9	20	-5.0	2	0	6	1.7	54	14	-40	5	6	4	0	0	4.1	SE$	14.3	NW	1	15	7	8	4.4	74
DODGE CITY	791	927.6	1016.3	18.9	5.6	12.2	0.2	31.1	20	-4.4	2	0	2	3.9	63	44	-2	18	8	5	0	0	5.4	SSE	24.6	S	3	7	10	13	6.1	67
GOODLAND	1111	887.6	1015.2	19.4	1.7	10.5	1.6	31.7	20	-8.9	1	0	13	-0.6	53	8	-32	4	3	1	T	T	6.4	SSE	23.2*	NNW	7	11	11	8	4.9	
TOPEKA	267	981.1	1017.2	18.9	3.3	11.2	-1.2	30.0	20	-5.0	2	0	10	2.2	58	31	-52	19	6	4	T	T	5.7	S	25.5	S	21	10	8	12	5.6	63
WICHITA	403	967.5	1016.5	20.0	5.6	12.8	-0.9	29.4	20	-8.3	2	0	5	4.4	61	26	-33	14	6	3	0	0	5.9	S	21.0	S	20	6	12	12	6.3	59
KENTUCKY																																
COVINGTON	265	985.9	1018.2	17.2	5.6	11.3	-0.5	30.6	30	-3.3	16	0	4	1.1	55	32	-50	8	12	1	43	T	4.3	SW	13.0*	WSW	22	7	8	15	6.3	
LEXINGTON	298	982.4	1018.6	17.2	5.6	11.3	-1.2	31.1	30	-3.3	16	0	8	3.3	63	66	-36	20	11	2	20	T	4.8	SSE	15.6*	WNW	1	7	13	10	5.7	
LOUISVILLE	144	1000.3	1018.3	18.3	5.6	11.7	-0.9	31.1	30	-1.7	14	0	6	4.4	63	26	-71	11	8	1	25	25	4.0	S	18.8	N	30	7	13	10	5.9	50
LOUISIANA																																
ALEXANDRIA	28	1013.8	1018.6	24.4	10.6	17.5		30.0	11	-0.6	2	0	1	12.2	76	136		53	9	6	0	0	2.9	S				6	9	15	6.3	
BATON ROUGE	20	1015.6	1018.7	25.0	12.8	18.9	-0.9	31.1	30	3.3	2	0	0	13.3	74	246	125	177	7	6	0	0	4.0	SE				8	11	11	5.9	
BURWOOD R	2		1019.5	22.2	15.6	19.0	-0.9	26.7	29	9.4	3+	0	0	15.6	81	27	-75	0	3	1	0	0	5.0	SE								
LAKE CHARLES	4	1016.4	1018.0	23.9	13.3	18.7	-1.3	28.3	30	2.8	2	0	0	14.4	79	79	-32	46	7	5	0	0	4.6	SSW	13.4*	SSE	27	4	12	14	6.7	
NEW ORLEANS	1	1016.7	1018.9	25.0	12.8	18.8	-0.6	30.6	28	3.3	1	0	0	14.4	77	68	-48	21	8	2	0	0	4.1	SSE	11.2*	SSE	27	10	12	8	5.1	
NEW ORLEANS AUDUBON	3	1012.1		25.0	14.4	19.5		30.0	28	7.2	3+	0	0			126		45	6	3	0	0										
SHREVEPORT	77	1008.6	1018.1	23.3	12.2	17.8	-0.7	29.4	29	2.2	2	0	0	12.8	76	147	31	41	9	6	0	0	4.5	S				7	13	10	6.1	53
MAINE																																
CARIBOU	190	988.7	1012.5	7.2	-2.8	2.3	-0.1	15.6	21	-8.9	4	0	25	-2.8	72	75	8	18	14	1	297	178	5.7	W	15.6	NW	28+	3	7	20	7.6	
PORTLAND	19	1010.0	1014.2	12.2	-1.1	5.6	-0.3	21.7	27+	-8.9	4	0	21	-0.6	70	115	20	42	13	1	196	51	4.8	WSW	17.0	NW	24	5	13	12	6.4	58
MARYLAND																																
BALTIMORE	45	1012.0	1016.9	18.9	5.6	12.2	-0.2	32.8	27	-3.3	17	2	5	2.8	56	108	17	37	10	3	0	0	5.0	W	17.4	W	13	8	12	10	5.4	60
BALTIMORE U	4			18.9	8.3	13.7	0.5	32.8	27	0.6	17	1	0			97	3	38	8													
FREDERICK	90			18.3	3.9	11.2	-0.1	31.1	27+	-5.0	4	0	7			76	-18	20	10		T	T										
MASSACHUSETTS																																
BLUE HILL OBS R	192	989.9	1013.5	15.0	2.2	8.6	1.0	31.1	27	-3.9	4	0	9		64	121	20	58	10		76	76	7.7	WNW	25.9	WNW	9					57
BOSTON	5	1009.4	1014.2	15.0	4.4	9.7	0.8	32.8	27	-0.6	4	1	3	0.6	59	98	2	51	11	1	3	T	7.1	SW	18.8	W	23+	7	10	13	6.0	61
NANTUCKET	13	1014.6	1015.2	11.1	3.9	7.5	0.9	16.7	23	-0.6	18	0	2	2.8	75	97	1	32	9	1	18	T	6.9	WSW	18.8	NW	16	9	12	9	5.4	63
PITTSFIELD	357			13.3	0.0	6.5	0.4	30.0	27	-8.3	4	0	19			78	-20	25	11		124	102										
WORCESTER	301	976.8	1013.9	13.3	1.1	7.2	0.2	31.1	27	-6.7	4	0	13	-1.1	61	87	-12	42	11	1	46	25	5.2	W	13.9*	W	23	6	11	13	6.4	
MICHIGAN																																
ALPENA	210	989.5		10.0	-1.7	4.1	-0.7	23.3	26	-11.7	3	0	20			36	-30	11	13	2	76	51	3.8	SW$	13.0	SE	30	5	12	13	6.3	53
DETROIT	189	989.6	1016.6	15.6	3.9	9.8	1.4	29.4	30+	-3.3	1	0	8	0.6	57	57	-19	25	10	1	3	T	5.2	NW	18.8	NW	30	8	13	9	5.5	65
DETROIT M WAYNE CO	193	992.1	1016.6	14.4	1.1	8.0	-0.2	29.4	26	-5.6	17	0	14	0.6	64	74	-4	39	11	2	13	T	4.4	WSW				7	13	10	5.5	
DETROIT WILLOW RUN	217	987.5	1016.2	16.1	2.2	9.1	0.3	30.6	26	-4.4	3+	0	11	0.6	59	33	-44	12	6	2	3	T	5.3	SW	14.3*	W	22	7	13	10	5.8	
ESCANABA U	181	993.2		7.8	-1.1	3.4	-0.6	21.7	25	-7.8	3	0	18	-2.2	73	71	15	26	12	3	251	229	5.0		17.0	NE	30+	8	9	13	6.3	51
FLINT	233	988.5	1016.7	13.9	0.6	7.4	0.1	28.9	27+	-6.1	3+	0	17	0.6	65	62	-6	38	11	1	56	25	4.8	WSW	11.2*	SW	22	7	11	12	6.2	
GRAND RAPIDS	208	991.0	1016.7	13.9	1.7	7.7	0.1	28.9	27	-5.6	3	0	17	-0.6	60	68	-7	26	12	4	79	25	5.4	WSW	18.3	W	30	9	7	14	6.2	60
LANSING	260	983.8	1016.3	13.9	1.1	7.4	-0.2	28.9	26	-6.1	3+	0	17	-0.6	61	35	-38	10	9	2	89	51	6.8	WSW	26.8	W	30	7	11	12	6.1	67
MARQUETTE U	206	988.7		7.8	-1.1	3.4	-0.7	24.4	24	-6.7	2	0	18			35	-34	15	10	2	51	229	3.9	NW$	18.8	SW	21	3	14	13	6.8	61
MUSKEGON	191	992.9	1016.6	12.8	1.7	7.1	0.3	27.8	27	-3.3	8+	0	17	0.6	68	28	-37	13	9	1	33	25	5.4	SSW	13.0*	NNW	13	10	5	15	6.1	
SAULT STE MARIE	220	992.8	1016.1	7.8	-1.1	3.2	0.2	18.9	25	-9.4	3	0	17	-1.7	74	52	-3	20	13	2	119	51	4.5	WNW	13.4*	WNW	28	7	6	17	6.8	48
MINNESOTA																																
DULUTH	435	974.8	1017.4	6.7	-4.4	1.2	-1.8	25.0	24	-12.2	10	0	28	-5.6	65	68	8	33	10	2	145	203	5.5	NW	21.5	NE	27	5	10	15	6.8	55
INTERNATIONAL FALLS	359	975.5	1017.5	7.8	-5.0	1.3	-1.7	23.9	24	-16.1	10	0	24	-4.4	68	46	6	27	8	0	312	305	4.1	NW	12.1*	NW	18	8	10	12	5.7	

See footnotes at end of table

CLIMATOLOGICAL DATA

METRIC UNITS

State and Station	Elevation (ground)	Pressure		Temperature											Average relative humidity	Precipitation							Wind					No. of days (sunrise to sunset)			Sky cover tenths (sunrise to sunset)	Possible sunshine
												No. of days							No. of days		Snow, Sleet				Fastest mile (1.6 kilometers)							
		Station Ø	Sea level	Average maximum	Average minimum	Average	Departure from normal	Highest	Date	Lowest	Date	Max 32.2 °C or above	Min. 0 °C or lower	Average dew point		Total	Departure from normal	Greatest in 24 hours	25 mm or more	With thunderstorms	Total	Maximum depth on ground	Average speed	Prevailing direction	Speed	Direction	Date	Clear, 0-3	Partly cloudy, 4-7	Cloudy, 8-10		
	M.	Mb	Mb.	C.	C.	C.	C	C		C.				C.	%	Mm.	Mm.	Mm.			Mm	Mm.	M p.s.		M p s							%
MINNESOTA																																
MINNEAPOLIS	251	982.7	1015.9	12.2	- 1.1	5.7	-1.4	32.8	25	-16.7	13	1	20	- 1.1	64	33	- 14	12	11	3	163	152	5.8	NW	14.8*	Nw	22	12	6	12	5.6	58
ROCHESTER	395	968.0	1016.8	11.1	- 0.6	5.3	-1.7	28.9	26	-10.6	13	0	18	0.6	74	72	16	31	10	4	328	178	6.3	NW				12	5	13	5.7	
ST CLOUD	315	978.4	1015.9	11.1	- 2.2	4.4	-1.6	31.1	25	- 8.3	10+	0	20		63	29	- 23	15	7	1	23	25						10	8	12	5.6	
MISSISSIPPI																																
JACKSON	93	1006.6	1018.9	23.3	11.1	17.0	-1.0	31.1	29	0.6	2	0	0	10.6	69	217	103	107	11	8	0	0	3.6	SSE	25.5	NW	30	11	9	10	5.2	64
MERIDIAN	89	1005.2	1019.6	23.9	10.0	17.1	-0.9	30.6	30+	- 0.6	3	0	2	10.6	72	154	18	64	8	5	0	0	3.3	S	10.3*	NNW	15+	12	7	11	5.0	
VICKSBURG U	71	1009.1		22.2	11.7	17.0	-1.7	30.0	30+	2.8	3	0	0			270	145	143	11	7	0	0	3.9		18.3	NW	30	8	14	8	5.5	64
MISSOURI																																
COLUMBIA	237	988.1	1016.9	18.3	5.0	11.6	-0.9	30.6	29	- 3.9	3	0	7	2.8	59	34	- 50	6	11	3	10	T	4.7	SSE	17.9	NW	12	11	7	12	5.4	64
KANSAS CITY	226	981.8	1016.9	18.9	6.1	12.5	-0.4	30.0	29	- 2.2	2	0	4	2.8	56	28	- 62	9	8	3	28	T	4.1	NW	17.0	SW	21	10	8	12	5.6	67
ST JOSEPH	247	982.2		18.3	3.9	11.0	-1.0	29.4	29	- 3.9	2	0	10			33	- 47	14	9	4	5	T	5.5	S	17.9*	S	21+	10	11	9	5.1	
ST LOUIS	163	997.1	1018.1	18.3	5.0	11.7	-1.3	29.4	21	- 4.4	3	0	5	2.2	57	64	- 30	29	12	3	T	T	4.6	SSE	16.5	NW	12	7	12	11	5.9	30
ST LOUIS RFC	142			17.8	7.2	12.6	-1.0	28.9	26+	- 1.7	15	0	3			123	32	54	9	0	T	T										
SPRINGFIELD	386	967.5	1017.7	17.8	5.0	11.6	-1.5	31.1	29	- 4.4	3	0	7	4.4	65	85	- 19	38	9	6	T	T	4.6	SSE	17.4	S	21	10	5	15	6.2	60
MONTANA																																
BILLINGS	1087	890.3	1014.8	17.8	3.3	10.4	2.9	30.6	19	- 3.9	12	0	8	- 2.8	44	2	- 32	1	3	0	T	0	5.1	WSW	20.1	NW	7	5	11	14	6.3	72
GLASGOW	694	939.7		16.1	1.1	8.4	2.1	30.6	24	- 7.2	12	0	12	- 3.9	50	5	- 20	2	6	0	T	0						5	8	17	7.1	
GREAT FALLS	1116	887.6	1015.8	16.7	1.1	8.9	2.2	28.3	19	- 4.4	8	0	13	- 3.3	47	15	- 10	8	8	1	97	25	5.1	SW	15.2	W	15+	3	9	18	7.2	62
HAVRE	787	924.8		17.2	- 0.6	8.4	2.6	30.0	24+	- 6.7	1	0	18			14	- 10	8	6	2	T	T	4.3	W$	18.8	S	24	6	8	16	6.7	66
HELENA	1187	873.0	1016.5	16.1	0.6	8.4	2.2	29.4	19	- 6.7	8	0	12	- 3.3	50	23	2	15	6	2	221	203	4.2	W	20.6	W	7	3	16	11	6.7	65
KALISPELL	904	911.3		15.6	0.0	7.7	2.0	26.1	19	- 5.0	26	0	18			27	-	13	8	1	79	25	3.3					2	9	19	7.2	
MILES CITY	801			17.2	1.7	9.6	2.0	31.7	24	- 7.2	1	0	13	- 1.7	52	14	- 12	6	5	0	T	T	4.9	NW	17.9*	NW	16+	9	10	11	5.7	
MISSOULA	972	902.5	1018.1	16.1	- 1.1	7.4	0.6	27.2	19	- 5.0	30+	0	24	- 1.7	59	18	- 6	7	6	0	T	T	3.1	NW	15.2	W	27	2	11	17	6.9	68
NEBRASKA																																
GRAND ISLAND	561	949.7		18.3	2.8	10.5	-0.1	30.6	20	- 7.8	2	0	10	0.6	57	13	- 45	6	8	1	3	T	6.1	S				14	8	8	4.8	
LINCOLN U	351			17.8	3.9	10.8	-0.2	29.4	25+	- 5.0	2	0	9			20	- 42	12	7	2	3	T	5.5	NW$	21.9	SW	21	14	7	9	4.8	71
NORFOLK	471	959.8		16.7	1.7	9.2	0.1	32.2	21	- 8.3	2	1	13			26	- 29	14	8	3	20	25						13	7	10	4.7	
NORTH PLATTE	847	915.2	1014.9	18.3	1.1	9.8	1.1	31.7	25	-10.0	2	0	14	- 1.1	52	13	- 38	6	5	0	T	T	6.0	N	22.4	N	11	7	13	10	5.5	72
OMAHA	298	976.3	1016.8	17.2	3.9	10.5	-0.4	29.4	21	- 4.4	15+	0	11	1.1	57	16	- 49	5	11	1	23	T	5.9	NNW	18.8	SW	21+	10	11	9	5.0	65
OMAHA N OMAHA AP	403	968.1		16.7	2.8	9.8	0.1	29.4	21	- 5.6	15+	0	11			13	- 50	6	9	4	15	25						11	8	11	5.4	
SCOTTSBLUFF	1204	878.3	1014.9	18.9	1.7	10.1	2.3	31.1	20	- 9.4	1	0	12	- 2.2	47	7	- 39	4	5	1	T	T	5.7	NW	20.6*	NW	7	11	7	12	5.5	
VALENTINE	789	923.5		17.8	0.0	9.0	1.4	33.9	25	-10.6	2	2	15	- 1.1	56	14	- 36	10	5	1	10	T	5.5	N$	20.1	N	7	10	13	7	4.8	74
NEVADA																																
ELKO	1547	845.6	1017.0	18.3	- 0.6	8.9	2.1	28.3	19	- 8.3	29	0	18	- 3.9	45	7	- 14	5	6	0	T	0	3.4	SW	14.3*	WNW	19+	6	7	17	6.4	
ELY	1907	809.7	1015.7	17.8	- 0.6	8.6	2.7	25.6	19	- 7.8	30	0	20	- 5.0	44	5	- 20	4	2	0	8	T	4.1	S	17.9	S	19+	9	9	12	5.9	81
LAS VEGAS	659	946.8	1011.9	29.4	12.8	21.3	2.9	35.6	18	6.1	1	10	0	- 7.8	15	0	- 6	0	0	0	0	0	4.8	SSW	19.7*	WSW	19	12	9	9	4.7	92
RENO	1342	864.2	1018.1	22.2	- 1.7	10.1	1.4	28.3	17	- 6.7	30	0	25	- 2.2	46	T	- 14	T	0	0	T	0	3.1	WNW	20.1	W	8	12	10	8	4.8	81
WINNEMUCCA	1310	868.9		20.0	0.0	10.1	2.3	27.8	14	- 6.7	29	0	17	- 3.3	45	7	- 14	5	3	0	33	T	3.4	W	21.0	W	9	8	10	12	5.6	85
NEW HAMPSHIRE																																
CONCORD	103	1003.4	1014.3	15.0	0.0	7.4	0.8	32.8	27	- 8.9	4	1	18	- 2.2	58	54	- 30	29	9	0	10	T	3.2	WNW	13.4	NW	24	6	14	10	6.2	55
MT WASHINGTON OBS	1909	799.3		- 1.7	- 8.9	- 5.3	-0.3	11.1	28	-16.7	3	0	26			114	- 36	21	18	1	300	178	16.8	NW	56.3Y	SE	13	5	7	18	7.5	33
NEW JERSEY																																
ATLANTIC CITY	18	1013.9	1016.8	16.7	6.1	11.2	0.7	30.0	27	- 3.9	4	0	3	2.8	62	89	2	41	8	3	T	T	5.5	S	14.8*	WNW	23	11	8	11	5.4	65
ATLANTIC CITY U	3			13.3	7.8	10.4	0.8	23.3	22	1.1	17	0	0			100	13	30	8				7.4		14.3*	W	23					
NEWARK	3	1014.7	1016.0	16.7	6.1	11.4	0.7	32.2	27	0.0	4	1	1	1.7	56	87	- 2	32	10	1	T	T	4.6	SW	13.0*	NW	23	12	6	12	5.7	
TRENTON U	17	1008.4		17.2	6.1	11.6	0.7	30.6	27	- 0.6	4	0	2			96	14	42	11	2	T	T	4.8	S$	14.3	NW	23+	11	8	11	5.5	63
NEW MEXICO																																
ALBUQUERQUE	1618	847.3	1012.5	23.3	5.6	14.5	1.3	30.0	16	- 1.1	1	0	2	- 4.4	32	2	- 10	2	2	1	0	0	3.9	NW	19.2	NW	8	12	10	8	4.5	87
CLAYTON	1515	845.6		20.0	3.3	11.4	1.0	28.9	20	- 7.2	2	0	6			13	- 18	8	5	4	T	0						8	7	15	6.4	
RATON	1944	805.6		18.9	0.6	9.6	1.3	27.2	20	- 5.0	2	0	14			8	- 19	4	4	3	20	T						6	12	12	6.3	
ROSWELL	1101	891.6		26.7	5.0	15.7	1.5	33.9	16	- 2.8	2	4	4	- 0.6	39	2	- 16	2	2	0	0	0	4.9		14.3	NW	30	10	11	9	5.1	79
SILVER CITY	1638	835.4		23.9	5.6	14.8		31.1	17+	0.6	7+	0	0			5		5	1	1	0	0						17	7	6	3.6	
NEW YORK																																
ALBANY	84	1011.1	1014.9	14.4	2.2	8.3	0.4	32.8	27	- 6.1	4	1	11	0.6	62	83	12	24	11	1	117	102	4.5	WNW	18.3	W	25	5	8	17	7.2	58

See footnotes at end of table

CLIMATOLOGICAL DATA

METRIC UNITS

State and Station	Elevation (ground)	Pressure		Temperature											Average relative humidity	Precipitation							Wind					No. of days (sunrise to sunset)			Sky cover, tenths (sunrise to sunset)	Possible sunshine
												No. of days							No. of days		Snow, Sleet				Fastest mile (1.6 kilometers)							
		Station Ø	Sea level	Average maximum	Average minimum	Average	Departure from normal	Highest	Date	Lowest	Date	Max 32.2 °C or above	Min. 0 °C or lower	Average dew point		Total	Departure from normal	Greatest in 24 hours	.25 mm. or more	With thunderstorms	Total	Maximum depth on ground	Average speed	Prevailing direction	Speed	Direction	Date	Clear, 0-3	Partly cloudy, 4-7	Cloudy, 8-10		
	M.	Mb.	Mb.	C.	C.	C.	C.	°C.		°C.				°C.	%	Mm.	Mm.	Mm.			Mm.	Mm.	M.p.s.		M.p.s.							%
NEW YORK																																
BINGHAMTON	485	954.9	1014.7	11.7	2.2	6.8	0.4	28.9	28+	- 6.7	3	0	16	0.6	70	85	10	23	14	2	188	152	4.4	WNW	13.4	SW	10	5	9	16	7.2	56
BUFFALO	215	987.4	1016.1	12.2	2.2	7.2	1.1	28.3	27	- 6.7	2	0	15	1.1	70	57	- 19	12	14	1	114	102	7.3	SW	15.2	W	9	6	9	15	6.9	54
NEW YORK U	40	1003.9		16.7	6.7	11.8	1.1	32.8	27	1.1	17	1	0	1.7	55	76	- 11	33	9	0	T	T	4.5	NW$	15.6	NW	23	12	9	9	5.0	58
NEW YORK	6	1013.8	1015.8	15.0	6.7	10.8	0.2	29.4	22	1.1	17	0	0	2.2	59	68	- 22	31	10	1	T	T	5.8	NW	13.9	NW	23+	10	9	11	5.8	
ROCHESTER	166	996.4	1016.0	13.3	2.2	7.6	0.3	30.6	28	- 7.2	3	0	12	1.7	70	67	- 1	18	10	1	193	152	5.8	WSW	22.8	SW	9	9	7	14	6.3	65
SCHENECTADY	66			14.4	2.2	8.3	0.4	32.8	28	- 4.4	4	1	9			74	2	20	10		64	76						13	12	5	4.4	
SYRACUSE	129	992.9	1015.1	13.9	2.8	8.5	0.7	31.7	28	- 3.9	3	0	10	0.6	63	91	12	23	13	1	145	102	4.9	WNW	18.8	W	23	8	8	14	6.4	48
NORTH CAROLINA																																
ASHEVILLE U	671	938.8		17.8	5.6	11.6	-1.7	30.6	30	- 1.7	16	0	9			83	2	40	10	3	T	T	3.9	NW$	15.2	SW	15	9	11	10	5.3	59
CAPE HATTERAS R	2	1017.6	1018.4	19.4	10.0	14.8	-0.3	26.7	26	0.6	17+	0	0	9.4	70	180	122	81	12	3	0	0	5.3	S	19.7	NW	11	13	9	8	4.5	77
CHARLOTTE	224	990.1	1018.4	21.1	8.3	14.7	-1.1	32.8	30	- 1.7	16	1	1	5.0	56	122	34	81	8	2	0	0	3.7	SW	13.4	SW	1	13	8	9	5.0	72
GREENSBORO	269	986.1	1018.4	20.0	6.1	13.0	-1.1	30.6	30	- 1.7	16+	0	6	4.4	60	73	- 14	31	10	3	0	0	4.2	SW	17.0	WNW	13	13	9	8	5.0	67
RALEIGH	132	1004.0	1017.9	21.1	7.2	14.1	-1.1	28.9	30+	- 1.7	17	0	4	4.4	58	82	- 8	21	9	5	0	0	4.2	SSW	12.5*	NNW	8	11	10	9	4.8	67
WILMINGTON	9	1016.5	1019.4	22.2	9.4	16.0	-0.9	30.6	23	1.7	17+	0	0	8.9	64	130	57	42	11	5	0	0	4.2	SSW	17.9	SW	1	13	8	9	4.9	71
WINSTON SALEM	295	982.8	1018.4	20.0	7.2	13.5	-1.1	31.1	30	- 0.6	16	0	2	2.8	54	100	8	45	10	2	0	0	5.1	WSW	17.9*	NNE	30	13	9	8	4.8	
NORTH DAKOTA																																
BISMARCK	502	955.4	1016.7	14.4	- 0.6	7.0	0.9	32.8	24	- 7.8	9	1	18	- 3.3	53	14	- 17	8	6	1	30	25	4.9	NNW	15.2	S	20+	6	10	14	6.4	71
DEVILS LAKE U	448	962.6		9.4	- 1.7	3.8	-0.6	26.7	24	- 9.4	15+	0	16			14	- 15	4	8	0	25	127	4.3	N$	15.2	NW	22	9	9	12	5.7	70
FARGO	274	982.3	1017.5	10.0	- 1.1	4.4	-1.2	31.1	25	-11.7	2	0	19	- 0.6	72	38	- 5	12	6	1	51	76	5.5	NNW	26.8	NW	8	9	6	15	6.3	66
WILLISTON U	579	947.0		15.0	- 0.6	7.3	1.3	32.2	24	- 9.4	12	1	17			10	- 14	6	5	0	69	51	5.1	NW$	25.0	SW	29	5	9	16	6.6	64
OHIO																																
AKRON	369	979.0	1017.7	14.4	3.3	9.1	0.7	28.9	30+	- 6.1	2	0	11	1.1	64	46	- 38	11	15	2	97	25	4.4	SW	12.5	SW	22	4	13	13	6.8	
CINCINNATI OBS	232			17.8	6.7	12.2	-0.2	31.1	30	- 2.8	16	0	3			23	- 69	9	10	1	51	25	3.3	S	12.5	W	13					59
CINCINNATI U	169	994.9		18.3	7.2	12.9	0.2	31.1	30	- 1.1	16+	0	2			22	- 71	5	11	1	48											
CLEVELAND	237	988.4	1016.7	14.4	2.8	8.6	0.4	29.4	27	- 6.7	17	0	12	1.7	65	45	- 42	17	10	3	25	25	5.2	S	16.1	W	22	5	11	14	6.6	67
COLUMBUS	247	987.5	1017.8	15.6	2.8	9.3	-1.4	29.4	30	- 5.6	16	0	13	0.6	59	34	- 55	8	11	1	28	T	4.0	S	15.2	SW	9	6	12	12	6.5	60
COLUMBUS U	221			15.6	5.6	10.7	-0.4	29.4	26	- 3.3	15	0	6			22	- 63	5	12	2	8	T										
DAYTON	305	980.9	1017.6	16.7	4.4	10.4	0.1	31.7	30	- 5.0	16	0	10	1.1	57	14	- 70	3	9	2	5	T	5.1	NW	15.2	W	13	7	12	11	5.9	62
MANSFIELD	395			14.4	3.3	8.9	0.6	27.8	30+	- 5.6	16	0	12			33	- 51	11	9	1	36	25						4	10	16	6.9	
SANDUSKY U	185	994.8		15.0	5.6	10.4	1.2	31.1	30	- 1.1	17+	0	6			29	- 51	8	9	2	13	T	4.6		25.9	NW	30	11	13	6	4.7	76
TOLEDO	206	991.4	1017.1	15.6	2.2	9.1	0.8	30.0	30	- 7.2	3	0	12	0.6	59	22	- 48	4	9	2	T	T	4.9	WSW	22.8	NW	30	8	11	11	5.9	65
YOUNGSTOWN	359	973.7	1017.1	13.3	3.3	8.3	-0.6	28.3	27	- 7.8	3	0	11	0.6	62	59	- 35	21	14	3	132	76	4.7	SW	15.6*	W	22	4	9	17	7.0	
OKLAHOMA																																
OKLAHOMA CITY	390	973.2	1016.9	20.6	8.9	14.6	-0.3	32.8	29	- 2.2	2	1	1	7.2	65	55	- 24	26	8	3	0	0	5.9	SSE	18.3	NW	1	6	9	15	7.0	55
TULSA	206	992.4	1017.1	20.0	8.3	14.2	-1.0	32.8	29	- 3.3	2	1	1	7.8	70	86	- 16	38	10	2	0	0	4.9	SSE	12.1*	SSE	21	4	12	14	6.5	57
OREGON																																
ASTORIA	2	1019.6	1020.2	13.3	5.0	9.1	-0.1	20.0	18	- 0.6	3	0	2	6.1	82	189	57	42	19	2	0	0	4.8	WSW	23.2*	SSW	27	2	3	25	8.5	
BURNS U	1265	874.0		17.8	- 0.6	8.7	0.9	25.6	14	- 9.4	29	0	17	- 2.2	48	6	- 13	5	4	1	T	T						10	5	15	5.6	
EUGENE	110	1007.1		17.2	5.0	11.2	0.7	26.1	18	0.6	29+	0	0			78	17	40	10	0	T	0	4.0		17.0*	WSW	27	5	9	16	7.0	
MEACHAM	1234			12.2	0.6	6.2	1.3	22.8	14	- 3.3	30+	0	18			68	- 3	25	9	0	155	203						6	6	18	6.9	
MEDFORD	396	972.2	1020.2	21.1	2.8	12.0	1.1	29.4	13	- 2.2	10	0	5	3.3	61	21	- 6	9	6	0	0	0	2.6	WNW	10.7*	WSW	27	7	12	11	5.8	
PENDLETON	452	964.1	1018.0	18.9	5.6	12.1	1.3	27.8	23	1.1	16	0	0	1.1	50	19	- 8	8	7	0	T	T	5.1	W	17.9*	W	19	8	9	13	5.7	
PORTLAND	6	1014.2	1019.8	16.7	6.1	11.4	0.4	26.7	18	1.7	10+	0	0	5.6	69	80	27	37	10	1	0	0	3.4	SSW	20.1	S	27	4	5	21	7.8	45
PORTLAND U	9			17.2	7.2	12.0	0.1	27.2	18	3.9	28+	0	0			97	35	40	10		0	0										
ROSEBURG	154	1001.7		20.0	4.4	12.0	1.2	30.0	13	0.0	11+	0	2			41	- 8	23	9	0	0	0	1.9	N$	8.5	NW	30+	6	10	14	6.6	59
SALEM	59	1013.2	1020.5	16.7	4.4	10.5	-0.1	25.6	18	- 1.7	10+	0	2	5.6	75	77	18	39	12	1	0	0	3.6	S	19.7*	S	27	4	8	18	7.3	
SEXTON SUMMIT R	1169	886.2		13.9	2.2	8.0	1.2	23.3	13	- 2.8	28+	0	13			46	- 1	24	7	0	61	25	4.2	S				7	10	13	5.6	
PACIFIC AREA																																
CANTON ISLAND	2	1008.6	1009.0	31.1	25.0	28.0	-0.7	32.2	28+	21.7	24	2	0	23.9	80	143	51	46	17	0	0	0	4.7	E	11.6*	NE	15	7	19	4	5.2	
ENIWETOK	4	1009.1		30.6	25.6	28.2	0.3	31.7	5	23.9	29+	0	0	23.3	76	98	66	31	14	0	0	0	6.3									
TAGUAC GUAM R	110			29.4	22.2	25.8	-0.8	31.1	4	17.8	26+	0	0			220	143	58	19	2	0	0	3.4	E$	12.5	SE	20+					57
KOROR R	29	1005.1	1008.9	31.1	24.4	27.8	0.4	31.7	28+	23.9	17+	0	0	24.4	85	174	- 90	65	20	2	0	0	3.0	NW	10.3	NW	17	0	3	27	9.4	55
KWAJALEIN	2	1008.5	1009.4	30.0	25.0	27.7	0.6	31.1	30+	22.8	10+	0	0	23.3	78	146	19	47	13	0	0	0	6.8	E	12.5*	ESE	14+	4	12	14	7.0	
MAJURO	3	1009.1	1009.4	30.0	25.6	27.6	0.6	31.1	30	23.3	24+	0	0	23.9	81	151	-162	42	18	0	0	0	5.3	ENE	15.2	E	4	2	13	15	7.5	72
PONAPE R	37	1003.5	1008.8	30.6	23.9	27.2	0.3	32.2	24	22.2	29+	1	0	23.9	84	303	-206	96	24	0	0	0	2.4	NE	9.8	E	9+	0	2	28	9.4	55
TRUK MOEN ISLAND	2	1008.2	1008.5	30.6	25.0	27.8	0.7	31.7	30+	22.8	28	0	0	23.9	81	177	-136	68	20	0	0	0	2.0	NNE	8.0	SW	18	0	13	17	8.0	35
WAKE ISLAND	3	1012.7	1013.1	28.9	23.3	26.2	0.4	30.0	30+	21.1	12	0	0	20.0	72	15	- 33	6	5	0	0	0	4.3	ENE	10.3*	ENE	21	8	15	7	5.2	

See footnotes at end of table

CLIMATOLOGICAL DATA

METRIC UNITS

State and Station	Elevation (ground)	Pressure		Temperature											Average relative humidity	Precipitation							Wind					No. of days (sunrise to sunset)			Sky cover tenths (sunrise to sunset)	Possible sunshine
												No. of days							No of days		Snow, Sleet				Fastest mile (1.6 kilometers)							
		Station Ø	Sea level	Average maximum	Average minimum	Average	Departure from normal	Highest	Date	Lowest	Date	Max 32.2 °C or above	Min. 0 °C or lower	Average dew point		Total	Departure from normal	Greatest in 24 hours	.25 mm or more	With thunderstorms	Total	Maximum depth on ground	Average speed	Prevailing direction	Speed	Direction	Date	Clear, 0-3	Partly cloudy, 4-7	Cloudy, 8-10		
	M.	Mb.	Mb.	C	C.	C.	C.	C.		C.				C.	%	Mm.	Mm	Mm.			Mm.	Mm.	M p.s		M p s							°
PACIFIC AREA																																
YAP R	17	1006.0	1008.0	30.0	23.9	27.0	-0.7	31.1	30+	21.7	25	0	0	24.4	86	405	243	167	20	2	0	0	3.8	NE	15.2	NW	17	0	2	28	9.8	79
PENNSYLVANIA																																
ALLENTOWN	115	1001.8	1016.2	16.7	3.9	10.2	0.6	31.7	27	- 4.4	4	0	6	2.8	64	101	5	33	10	3	T	T	5.3	W	17.0*	WNW	23	9	9	12	5.8	
ERIE	223	989.8	1016.4	12.8	3.3	8.1	0.6	28.3	28	- 6.1	3	0	11	1.1	65	47	- 44	15	12	2	36	76	5.5	WSW	13.4*	WSW	30+	9	8	13	5.8	
HARRISBURG	102	1002.0	1016.1	17.2	5.0	11.1	0.1	31.7	27	- 4.4	4	0	5	2.2	60	71	- 5	30	11	2	T	T	4.1	W	15.2	W	23+	5	11	14	6.3	59
PHILADELPHIA	2	1011.6	1016.2	16.7	5.6	11.1	0.0	30.6	26	- 2.8	17	0	2	3.9	64	94	7	37	11	2	T	T	5.0	WSW	15.2	SW	23	9	8	13	6.2	59
PHILADELPHIA U	11			18.3	7.8	13.3	1.8	32.8	26	1.1	17+	2	0			0		0														
PITTSBURGH	351	986.5	1017.5	14.4	3.9	9.1	-0.3	29.4	27	- 5.6	17	0	9	1.1	61	77	- 1	21	13	1	91	25	4.4	WSW	15.6*	NW	30	4	12	14	6.8	54
PITTSBURGH U	228			15.6	6.1	10.8	-0.4	30.6	27+	- 1.7	17+	0	6			86	1	24	14		3											47
READING U	81	1003.9	1016.2	17.2	6.7	11.8	0.3	31.7	27	- 2.2	4	0	3			99	12	34	10	2	T	T	5.1	W$	17.9	NW	23	8	10	12	5.9	63
SCRANTON	287	980.8	1015.9	15.0	3.9	9.4	0.9	31.7	27	- 5.6	4	0	10	0.6	58	66	- 17	18	11	1	76	25	4.3	SW	14.8	W	14	9	5	16	6.3	53
WILLIAMSPORT	161	997.4	1016.6	16.7	3.3	9.8	0.2	32.2	26	- 5.6	4	1	9	1.7	61	76	- 14	30	11	1	13	T	4.0	W	13.0*	WSW	9	7	9	14	6.5	
RHODE ISLAND																																
BLOCK ISLAND	34	1010.5	1014.8	10.6	3.9	7.3	0.1	16.1	23	- 1.1	4	0	1			155	64	45	9	1	0	0						10	9	11	5.5	
PROVIDENCE	17	1008.7	1015.0	15.0	3.3	9.2	0.8	30.0	27	- 3.3	4	0	6	1.1	60	98	3	54	9	2	8	T	6.1	WNW	18.8*	WNW	23	8	12	10	5.7	60
SOUTH CAROLINA																																
CHARLESTON	12	1017.0	1019.1	23.3	10.0	16.7	-1.2	30.6	30	0.0	16	0	1	9.4	67	64	- 9	34	7	4	0	0	4.3	SSW	20.6Y	N	15	15	6	9	4.4	78
CHARLESTON U	3			21.7	12.8	17.2	-1.4	29.4	23	5.0	16	0	0			70	5	25	6		0	0	5.0		16.1	SW	13					
COLUMBIA	66	1006.0	1019.0	23.3	8.3	16.0	-1.6	33.9	30	0.0	21+	1	4	6.7	59	82	- 20	38	11	5	0	0	3.1	WSW	13.0	NNW	11	15	5	10	4.2	71
FLORENCE	45	1012.7	1018.6	23.9	9.4	16.4	-1.1	34.4	30	0.0	16	1	1	6.7	58	78	- 13	19	11	5	0	0	4.2	S	11.2*	NW	13	14	7	9	4.5	
GREENVILLE	308	980.8	1018.2	22.2	7.8	15.0	-1.6	32.8	30	- 0.6	17+	1	3	5.0	57	136	37	63	10	6	0	0	3.7	WSW	13.0	W	13	14	7	9	4.4	69
SPARTANBURG	244	988.4	1018.4	21.1	7.8	14.6	-1.4	32.2	30	0.6	17+	1	0	3.9	55	146	45	80	8	3	0	0	3.8	WSW	13.0*	WNW	19	14	7	9	4.5	
SOUTH DAKOTA																																
HURON	391	968.8	1016.9	13.9	0.6	7.2	-0.6	33.9	25	- 7.8	15	1	15	1.7	74	51	5	22	8	3	81	102	6.8	SSE	18.8	SE	20	11	12	7	5.1	66
RAPID CITY	965	900.7	1015.7	17.8	1.1	9.5	2.6	31.7	24+	- 7.8	2	0	14	- 2.2	52	18	- 25	7	7	1	3	T	5.8	NNW	23.2	NW	7	9	11	10	5.7	64
SIOUX FALLS	433	964.2	1016.6	14.4	1.1	7.6	-0.1	34.4	25	- 7.8	2	1	17	1.1	69	43	- 15	18	10	4	107	76	5.2	NNW	13.9*	NW	8	11	9	10	5.3	
TENNESSEE																																
BRISTOL	459	963.8	1018.7	17.8	5.0	11.4	-2.0	28.3	30	- 2.8	3	0	5	3.3	62	91	11	34	14	1	15	T	2.9	WNW	13.0*	WNW	13	7	8	15	6.3	
CHATTANOOGA	204	990.8	1019.5	20.0	7.2	13.6	-1.9	31.1	30	- 1.1	3	0	4	5.6	65	113	4	58	12	5	0	0	3.4	S	18.8	NW	13	8	10	12	6.0	56
KNOXVILLE	290	983.6	1019.4	18.9	6.1	12.6	-2.6	31.1	30	- 1.7	3	0	5	3.3	57	98	9	56	9	4	T	T	4.0	SW	17.9	W	19	8	9	13	6.3	59
MEMPHIS	80	1003.8	1018.6	20.6	9.4	14.9	-1.7	28.9	30+	- 1.1	3	0	2	7.2	65	92	- 26	49	12	7	0	0	4.2	S	15.2	SW	30	9	8	13	5.6	71
MEMPHIS U	83			20.0	10.6	15.3	-1.6	29.4	29+	2.2	3+	0	0			100	- 17	62	10		0	0										
NASHVILLE	176	998.4	1018.8	19.4	7.2	13.3	-2.0	30.0	30	- 1.7	16	0	5	6.1	66	176	81	83	11	4	T	T	3.9	S	15.6*	NW	10+	6	12	12	6.4	56
OAK RIDGE	276	986.4		18.9	5.6	12.2	-2.4	30.0	30	- 3.3	3	0	7			100	- 7	43	10	3	T	T	2.0		16.5Y		1	11	6	13	5.4	
TEXAS																																
ABILENE	536	953.4	1014.6	24.4	11.1	17.8	-0.2	34.4	29	1.7	2+	3	0	8.9	62	35	- 23	15	7	4	0	0	5.3	SSE	16.5	SE	26	8	9	13	6.1	68
AMARILLO	1099	888.4	1013.8	21.7	6.7	14.0	0.7	32.2	20	- 3.9	2+	1	4	3.3	56	38	4	33	6	3	0	0	6.5	S	15.6	N	7+	6	12	12	6.0	63
AUSTIN	182	994.2	1016.1	25.6	14.4	19.8	0.0	32.2	28	3.9	2	1	0	12.8	69	103	12	34	7	5	0	0	4.5	SSE	17.9	W	27	7	8	15	6.2	48
BROWNSVILLE	5	1012.8	1015.5	27.8	18.3	23.0	-0.3	33.3	30	7.8	1	3	0	17.8	76	31	- 9	11	4	2	0	0	6.5	SE	15.2	SE	4	10	8	12	5.9	55
CORPUS CHRISTI	13	1014.5	1016.0	27.2	17.2	22.2	0.2	35.6	28	4.4	1	3	0	17.2	76	30	- 24	13	6	3	0	0	6.9	SSE	14.8	S	8	6	13	11	6.0	66
DALLAS	147	997.9	1016.5	22.8	12.8	17.8	-0.6	30.0	29+	0.6	2	0	0	10.6	67	227	126	81	9	5	0	0	5.6	S	18.8	N	10	8	8	14	6.3	52
DEL RIO U	292			29.4	15.0	22.2	-0.5	37.8	29	6.7	1	8	0			46	9	26	6	5	0	0										
EL PASO	1194	885.0	1011.3	27.8	11.7	19.6	2.2	33.9	16	2.8	1	6	0	- 3.9	23	3	- 5	3	1	0	0	0	4.2	WSW	25.0	NW	7	15	11	4	3.6	91
FORT WORTH	166	995.5	1016.4	23.3	12.2	17.9	-0.3	30.6	20+	0.6	2	0	0	10.6	66	144	52	62	9	5	0	0	6.4	S	20.6*	NNE	10	9	5	16	6.5	
GALVESTON U	2			22.2	17.8	19.9	-0.4	25.6	30+	10.6	2	0	0			62	- 4	26	9	0	0	0	5.9		17.9	SE	5	5	17	8		76
GALVESTON	2	1015.4	1017.7	22.8	17.2	20.2	-0.2	27.2	30	8.9	1	0	0	15.6	77	63	- 12	20	8	5	0	0	5.3	SE							6.0	
HOUSTON U	12			26.1	17.2	21.7	1.0	32.8	28	9.4	2	1	0			144	57	76	7		0	0										
HOUSTON	15	1014.2	1017.1	25.6	14.4	20.1	-1.1	31.1	28	3.3	1	0	0	15.6	82	122	40	63	10	6	0	0	5.1	SSE				4	11	15	6.8	60
LAREDO	152	998.7	1014.2	31.1	17.2	24.2	0.2	38.3	29	10.0	2+	16	0	13.3	58	87	45	55	5	5	0	0	5.6	SE	16.5*	NNE	6	15	9	6	3.8	
LUBBOCK	988	903.0	1014.6	23.9	7.8	15.8	0.5	32.8	16	- 1.7	1	1	3	6.1	59	30	1	20	3	4	0	0	7.5	SSE	20.6*	W	26	9	10	11	5.3	
MIDLAND	870	914.4	1012.5	25.6	11.1	18.3	0.1	34.4	14	1.7	2	1	0	5.0	48	20	- 1	8	3	4	0	0	5.9	SSE	19.2*	WNW	26	12	8	10	5.1	
PORT ARTHUR	5	1015.8	1017.4	25.6	13.9	19.7	-0.1	30.6	28	3.9	2+	0	0	15.0	80	56	- 44	26	10	3	0	0	4.7	S	17.9	S	27	6	9	15	6.5	53
SAN ANGELO	580	946.9	1013.8	26.7	11.7	19.1	-0.2	34.4	29+	0.6	2	6	0	8.9	58	68	17	19	6	8	0	0	4.9	S	13.0*	S	16+	11	8	11	5.2	
SAN ANTONIO	241	990.6	1015.5	27.2	15.0	20.9	0.8	33.3	28	3.9	1	2	0	13.3	69	102	30	42	5	4	0	0	5.0	SE	13.0	NW	27	10	9	11	5.6	56
VICTORIA	32	1012.1		26.7	15.6	21.0	-0.1	32.8	28	5.0	1	1	0			111	45	56	8	5	0	0	5.4		23.7Y	S	27	5	11	14	6.7	
WACO	152	995.0	1016.2	25.0	13.3	19.2	-0.1	31.1	29+	2.2	2	0	0	12.2	67	75	- 24	29	9	7	0	0	6.7	SSE	13.0*	SSE	21	7	9	14	6.3	
WICHITA FALLS	303	978.3	1015.3	23.3	10.0	16.7	-0.6	34.4	29	- 1.7	2	1	1	8.9	64	117	53	52	7	2	0	0	4.6	S	17.9*	W	26	7	10	13	6.2	

See footnotes at end of table

CLIMATOLOGICAL DATA

METRIC UNITS

APRIL 1962

State and Station	Elevation (ground)	Pressure		Temperature											Average relative humidity	Precipitation							Wind					No. of days (sunrise to sunset)			Sky cover, tenths (sunrise to sunset)	Possible sunshine
												No. of days							No. of days		Snow, Sleet				Fastest mile (1.6 kilometers)							
		Station Ø	Sea level	Average maximum	Average minimum	Average	Departure from normal	Highest	Date	Lowest	Date	Max 32.2 °C or above	Min. 0 C or lower	Average dew point		Total	Departure from normal	Greatest in 24 hours	.25 mm. or more	With thunderstorms	Total	Maximum depth on ground	Average speed	Prevailing direction	Speed	Direction	Date	Clear, 0-3	Partly cloudy, 4-7	Cloudy, 8-10		
	M.	Mb.	Mb.	C.	C.	C.	C.	C.		C.				C.	%	Mm.	Mm.	Mm.			Mm.	Mm.	M.p.s.		M.p.s.							%
UTAH																																
MILFORD	1533	843.9		21.1	0.0	10.3	1.6	29.4	18	- 6.7	30	0	17			5	- 13	3	4	1	0	0						8	11	11	5.7	
SALT LAKE CITY	1286	868.3	1016.7	19.4	3.9	11.6	1.6	29.4	19	- 2.2	30	0	3	1.7	55	76	31	29	8	1	41	25	4.4	SSE	16.1	NW	5	6	6	18	6.5	70
WENDOVER	1291	871.0		19.4	6.1	12.7	1.8	31.1	19	0.0	30	0	1			12	- 1	11	5	0	0	0						10	7	13	5.4	
VERMONT																																
BURLINGTON	101	998.8	1013.8	11.7	- 0.6	5.5	-0.7	30.6	28	- 8.3	4	0	21	- 2.2	61	66	- 1	17	13	0	91	76	3.5	S	13.4	NW	24	5	8	17	7.0	50
VIRGINIA																																
LYNCHBURG	289	992.3		18.3	6.7	12.3	-1.1	28.9	26+	- 0.6	3	0	2			62	- 18	25	7	1	0	0	4.3		14.8	W	13	10	10	10	5.2	57
NORFOLK	8	1016.4	1017.8	19.4	7.8	13.6	-0.9	29.4	26	- 1.1	4	0	1	6.7	69	114	34	36	9	3	T	T	5.5	SSW	19.7	SW	13	10	13	7	5.0	67
RICHMOND	49	1011.2	1017.6	21.7	6.7	14.2	0.2	32.8	26	- 0.6	4	1	2	5.0	60	97	17	27	9	2	0	0	4.1	SSW	12.5	W	13	8	13	9	5.4	68
ROANOKE	358	975.3	1017.9	18.3	6.1	12.1	-1.4	30.0	26	- 2.8	4	0	4	2.2	55	43	- 36	12	9	2	T	T	4.7	WNW	17.4*	WSW	9	10	12	8	5.3	
WASHINGTON																																
OLYMPIA	58	1012.5	1019.7	15.6	2.8	9.4	-0.6	27.2	18	- 1.7	16+	0	6	5.0	76	114	39	40	17	0	0	0	3.6	SW	20.6*	SW	27	2	4	24	8.5	
SEATTLE TACOMA	122	1004.7	1018.9	14.4	5.6	10.0	0.4	25.0	18	2.2	28+	0	0	5.0	74	52	- 9	17	11	0	0	0	4.9	SSW	20.1*	SSW	27	3	4	23	8.1	
SEATTLE	4		1018.9											5.0	69	0		0					3.0	SSW								
SEATTLE U	4			15.6	7.8	11.7	0.7	27.2	18	4.4	28	0	0			46	- 4	21	12		0	0			27.7	SW	27					53
SPOKANE	718	947.5	1016.3	16.7	2.8	9.9	1.4	26.7	14	- 1.7	8	0	6	0.6	56	26	3	23	6	1	T	0	4.9	SW	22.4	SW	6	5	10	15	6.7	69
STAMPEDE PASS R	1206	880.5		7.2	- 0.6	3.3	0.8	18.9	18	- 3.9	28	0	20			291	149	137	19	0	1298	2565						2	3	25	8.5	
TATOOSH ISLAND	31	1015.9	1018.8	10.6	6.1	8.3	-0.3	13.9	18	2.8	27	0	0	5.6	83	259	126	74	19	0	0	0	6.8	S	32.6	E	27	2	1	27	8.7	28
WALLA WALLA U	289	981.4		18.9	7.2	13.1	0.9	28.3	23	3.3	28+	0	0			30	- 5	14	7	0	0	0	2.7	W$	15.2	W	27	6	10	14	6.5	59
YAKIMA	323	978.0	1017.2	20.0	2.2	11.1	0.8	27.8	18+	- 2.2	29	0	8	0.0	50	16	4	11	7	3	0	0	3.8	WNW	14.3*	NW	19	11	5	14	5.6	
WEST INDIES																																
SAN JUAN P.R. U	14			27.8	22.2	25.1	0.1	31.7	16	21.1	20+	0	0			118	19	27	16													
SAN JUAN P.R.	5	1014.1	1016.3	28.9	21.7	25.1	0.3	30.6	18+	20.0	21+	0	0	20.6	77	94	- 1	24	18	0	0	0	3.6	ENE	12.5	NE	1	1	26	3	5.4	61
SWAN ISLAND	9	1012.6		29.4	25.0	27.2	-0.3	31.1	14	21.1	21	0	0			30	9	18	5		0	0						0	15	15	7.4	
WEST VIRGINIA																																
CHARLESTON	286	981.9	1017.8	17.2	5.0	10.9	-2.1	30.0	27	- 3.3	17+	0	6	2.8	63	105	11	28	14	2	T	T	3.0	WSW	14.3*	WSW	13	4	11	15	6.9	
HUNTINGTON U	252	987.5	1018.1	17.2	5.0	11.1	-2.6	29.4	27+	- 4.4	4+	0	9	2.2	60	103	13	43	10	1	T	T	3.3	WSW	12.1*	WSW	1	5	12	13	6.7	
PARKERSBURG U	189			17.8	5.0	11.3	-1.0	31.1	27	- 3.3	4	0	6			68	- 15	23	13	1	5	T	3.0		13.4	NW	13					43
WISCONSIN																																
GREEN BAY	208	993.3	1016.3	12.2	0.6	6.3	0.4	30.6	26	- 6.7	16	0	15	- 0.6	66	65	2	23	9	1	T	T	5.1	NE	15.2	NE	12	9	7	14	6.1	53
LA CROSSE	199	991.6		13.3	1.7	7.4	-0.9	30.0	26	- 7.2	2	0	14	0.0	63	43	- 27	10	10	4	168	102	5.7	S	18.3*	WSW	27	10	8	12	5.6	
MADISON	262	980.4	1016.4	13.3	1.1	7.2	0.3	28.9	26	- 7.2	16	0	14	0.0	64	36	- 29	12	10	2	69	51	4.7	S	15.6	SE	8	9	7	14	6.1	59
MILWAUKEE	205	992.0	1017.6	12.8	1.1	6.9	0.5	29.4	26	- 6.1	3	0	16	0.6	68	38	- 26	13	10	0	102	51	5.7	NNE	15.6	N	13	6	14	10	5.6	63
WYOMING																																
CASPER	1621	836.8	1015.1	16.1	0.0	8.2	2.0	27.2	20+	- 7.2	1	0	16	- 3.3	53	24	- 19	14	5	0	28	51	5.1	WSW	20.6*	WNW	28	8	8	14	6.0	
CHEYENNE	1867	812.4	1014.9	15.6	0.0	7.6	2.2	26.1	24	- 9.4	8+	0	16	- 3.9	50	14	- 34	4	6	0	64	76	5.9	WNW	20.1	W	7	7	10	13	6.2	65
LANDER	1696	834.4	1014.5	16.1	0.6	8.4	2.2	27.8	19	- 5.6	12+	0	15	- 3.9	48	49	- 14	31	7	2	71	51	3.5	WSW	17.0	W	7+	6	16	8	5.7	81
SHERIDAN	1202	884.5	1011.6	16.1	1.1	8.6	2.1	28.9	24	- 7.2	2	0	15	- 1.7	53	26	- 28	18	9	0	28	76	3.4	NW	26.4	NW	7	8	10	12	5.8	74

Data from airport unless otherwise specified. U indicates Urban, R indicates Rural, sites.
* Data entered in column 'Fastest Mile' is the fastest mile observed. This station is not equipped with automatic wind recording instrument.
A Maximum hourly average.
+ And also on an earlier date or dates.
Ø Station pressures apply to elevations shown in the 'Elevations - Station Pressure' table of the annual issue of this publication.
B Number of days maximum 21.1 C. or above for Alaskan Stations.
$ Wind direction to 8 compass points only.
Y Peak Gust.

Data in this table is obtained by conversion from data in the English Units table.

HEATING DEGREE DAYS

(Base 65°F.)

APRIL 1962

State and station	Current season		Normals
	This month	Period July through this month	July through this month
ALABAMA			
Birmingham	154	2508	2750
Huntsville	233	3134	
Mobile	83	1579	1612
Montgomery	134	2037	2137
ALASKA			
Anchorage	837	10565	9852
Annette	646	6237	6279
Barrow	2002	17120	17629
Barter Island	1963	17387	
Bethel	1240	12240	11733
Cold Bay	987	8503	8317
Cordova	798	9003	8459
Fairbanks	1040	13968	13419
Juneau	756	8275	7988
King Salmon	968	10964	10133
Kotzebue	1580	14211	14403
McGrath	1145	13920	13431
Nome	1391	12783	12540
St. Paul	1074	9519	9210
Shemya	832	7967	
Yakutat	816	8513	8216
ARIZONA			
Flagstaff	517	6936	6848
Phoenix (U)	0	1468	1492
Phoenix	2	1620	1698
Prescott	208	4400	4352
Tucson	5	1955	1776
Winslow	194	5285	4550
Yuma	0	942	951
ARKANSAS			
Ft. Smith	204	3517	3164
Little Rock	198	3245	2964
Texarkana	133	2674	2362
CALIFORNIA			
Bakersfield	58	2556	2094
Bishop	184	4164	4044
Blue Canyon	445	4976	5120
Burbank	76	1586	1701
Eureka (U)	431	4201	3975
Fresno	66	2805	2489
Long Beach	89	1618	
Los Angeles (U)	66	1351	1364
Los Angeles	139	1633	1838
Mt. Shasta (R)	414	5364	5382
Oakland	197	2658	2832
Point Arguello (R)	369	3261	
Red Bluff	80	2651	2495
Sacramento (U)	97	2635	2510
Sacramento	121	2883	2712
Sandberg (R)	281	4279	3926
San Diego	103	1325	1434
San Francisco (U)	242	2623	2641
San Francisco	265	2880	2993
San Jose (U)	147	2254	2227
Santa Maria	257	2723	2553
COLORADO			
Alamosa	614	8168	8016
Colorado Springs	503	6720	5872
Denver	437	6556	5781
Grand Junction	286	5814	5628
Pueblo	364	5932	5479
CONNECTICUT			
Bridgeport	507	5315	5609
Hartford	501	5969	5907
Middletown	526	5446	
New Haven	522	5414	5713
DELAWARE			
Wilmington	400	4926	4794
DIST. OF COLUMBIA			
Washington (U)	279	4089	4178
Washington	302	4262	4246
FLORIDA			
Apalachicola (U)	58	1167	1307
Daytona Beach	55	814	868
Fort Myers	3	260	405
Jacksonville	65	1160	1243
Key West	0	47	77
Lakeland (U)	19	518	649
Miami	2	161	178
Miami Beach	0	96	123
Orlando	21	524	650
Pensacola (U)	76	1405	1435
Tallahassee	80	1472	1519
Tampa	19	512	674
West Palm Beach	3	209	248
GEORGIA			
Athens	234	2920	2785
Atlanta	235	3036	2806
Augusta	180	2419	2138
Columbus	163	2235	2396
Macon	142	2103	2049
Rome	278	3332	3111
Savannah	122	1863	1710
Thomasville (U)	83	1432	1472
IDAHO			
Boise	377	6064	5549
Idaho Falls 46W (R)	568	8243	7994
IDAHO (Cont'd.)			
Idaho Falls 42NW (R)	585	8686	8344
Lewiston	336	5300	5193
Pocatello	471	7042	6523
ILLINOIS			
Cairo (U)	266	4003	3709
Chicago (Midway)	480	6253	6023
Chicago (O'Hare)	504	6573	
Moline	481	6590	6120
Peoria	455	6492	5854
Rockford	527	6950	
Springfield	397	5769	5490
INDIANA			
Evansville	325	4612	4264
Ft. Wayne	484	6186	6008
Indianapolis	441	5640	5405
South Bend	539	6398	6214
IOWA			
Burlington	447	6407	5888
Des Moines	474	7161	6200
Dubuque	575	7458	6928
Sioux City	487	7369	6730
Waterloo	561	7561	6845
KANSAS			
Concordia (U)	361	5796	5157
Dodge City	344	5264	4908
Goodland	423	6299	6068
Topeka	393	5770	5057
Wichita	315	5026	4463
KENTUCKY			
Lexington	411	4689	4824
Louisville	385	4596	4340
LOUISIANA			
Alexandria	123	2219	
Baton Rouge	89	1689	1595
Lake Charles	71	1569	1543
New Orleans (Audubon Park)	67		
New Orleans	87	1407	1317
Shreveport	104	2287	2117
MAINE			
Caribou	858	8419	9460
Greenville (U)	849	8503	
Portland	686	6935	7170
MARYLAND			
Baltimore (U)	298	4247	4130
Baltimore	360	4745	4667
Frederick	410	5182	4748
MASSACHUSETTS			
Blue Hill Obs. (R)	518	5964	
Boston	468	5367	5513
Nantucket	576	5230	5569
Pittsfield	636	6932	7253
Worcester	596	6470	
MICHIGAN			
Alpena	758	7868	7501
Detroit (City AP)	486	6042	6093
Detroit (M. Wayne Co.)	558	6340	
Detroit (Willow Run)	516	6337	6170
Escanabe (U)	803	7947	8020
Flint	595	6822	6761
Grand Rapids	581	6576	6695
Lansing	603	6823	
Marquette (U)	801	7903	7863
Muskegon	607	6491	6623
S. Ste. Marie	809	8377	8752
MINNESOTA			
Duluth	917	9405	9285
Internat. Falls	911	9927	9992
Minneapolis	691	8340	7514
Rochester	707	8375	7705
St. Cloud	745	8735	8456
MISSISSIPPI			
Jackson	151	2402	2202
Meridian	142	2435	2324
Vicksburg (U)	146	2344	2000
MISSOURI			
Columbia	380	5373	4964
Kansas City	339	5267	4769
St. Joseph	405	6126	5195
St. Louis (RFC)	327	4691	4368
St. Louis	370	5088	4587
Springfield	375	4849	4559
MONTANA			
Billings	428	7256	6683
Butte	705	9387	8874
Glasgow	530	8894	8265
Great Falls	501	7820	7030
Havre	529	8650	7775
Helena	527	7848	7654
Kalispell	570	8013	7449
Miles City	471	7858	7459
Missoula	580	7955	7332
NEBRASKA			
Grand Island	431	6853	6077
Lincoln (U)	414	6428	5661
Norfolk	501	7383	6754
North Platte	463	6870	6244
Omaha	431	6661	5953
Omaha N. Omaha AP	467	7056	
Scottsbluff	439	6767	6455
Valentine	510	7384	6704
NEVADA			
Elko	504	7031	6774
Ely	522	7301	6825
Las Vegas	13	2753	2425
Reno	440	5881	5553
Tonopah	328	5759	5450
Winnemucca	441	6447	5959
NEW HAMPSHIRE			
Concord	585	6673	7214
Mt. Washington Obs. (R)	1269	11815	
NEW JERSEY			
Atlantic City	392	4672	
Atlantic City (U)	432	4328	4528
Newark	393	4820	5093
Trenton (U)	386	4838	4924
NEW MEXICO			
Albuquerque	214	4576	4319
Clayton	369	5295	4930
Raton	464	6173	6038
Roswell	160	3821	3396
Silver City	197	3869	
NEW YORK			
Albany	552	6408	6666
Binghamton	639	6975	7131
Buffalo	609	6394	6451
New York (U)	370	4548	4879
New York (LaGuardia)	412	4719	4838
Rochester	589	6321	6520
Schenectady	547	6279	6777
Syracuse	552	6182	6236
NORTH CAROLINA			
Asheville (U)	371	3974	3962
Cape Hatteras (R)	208	2710	2367
Charlotte	230	3187	3176
Greensboro	310	3899	3760
Raleigh	261	3602	3328
Wilmington	176	2542	2316
Winston-Salem	290	3729	3672
NORTH DAKOTA			
Bismarck	606	8746	8562
Devils Lake (U)	774	9850	9409
Fargo	749	9152	8835
Grand Forks CAA	800	9506	
Pembina	936	10164	
Williston (U)	587	8951	8570
OHIO			
Akron	518	5990	5918
Cincinnati (U)	337	4560	4424
Cincinnati	402	4862	5023
Cincinnati Obs.	376	4946	4725
Cleveland	547	5961	5737
Columbus	496	5753	5404
Columbus (U)	431	5321	5102
Dayton	460	5668	5379
Mansfield	526	6139	
Sandusky (U)	468	5682	5601
Toledo	510	6310	6089
Youngstown	559	6264	5878
OKLAHOMA			
Oklahoma City	230	3881	3604
Tulsa	250	4183	3540
OREGON			
Astoria	493	4741	4416
Burns (U)	513	6883	6410
Eugene	379	4514	4384
Meacham	645	7248	7034
Medford	337	4789	4271
Pendleton	333	5041	4956
Portland (U)	335	3968	3874
Portland	364	4332	4297
Roseburg	338	4309	4182
Salem	419	4655	4234
Sexton Summit (R)	552	5764	5497
PENNSYLVANIA			
Allentown	454	5657	5691
Erie	578	6020	6156
Harrisburg	415	5268	5116
Philadelphia (U)	317	4309	4430
Philadelphia	408	5167	4762
Pittsburgh (U)	442	5033	4898
Pittsburgh	513	5700	5674
Reading (U)	391	4869	4926
Scranton	508	6038	5816
Williamsport	479	5707	5692
RHODE ISLAND			
Block Island	591	5355	5412
RHODE ISLAND (Cont'd.)			
Providence	489	5505	5809
SOUTH CAROLINA			
Charleston (U)	117	1810	1769
Charleston	160	2128	1973
Columbia	183	2545	2435
Florence	165	2544	2507
Greenville	220	2956	3028
Spartanburg	228	3101	3018
SOUTH DAKOTA			
Huron	601	8416	7543
Pierre	502	7713	
Rapid City	483	7148	7030
Sioux Falls	593	7905	7492
TENNESSEE			
Bristol	383	4016	4053
Chattanooga	268	3296	3339
Knoxville	324	3647	3540
Memphis (U)	216	3301	2986
Memphis	229	3382	3113
Nashville	303	3761	3470
Oak Ridge	339	3798	3970
TEXAS			
Abilene	115	2739	2657
Amarillo	254	4216	4246
Austin	48	1745	1713
Brownsville	7	577	617
Corpus Christi	10	998	1011
Dallas	109	2493	2272
Del Rio (U)	21	1442	
El Paso	36	2729	2641
Ft. Worth	107	2582	2356
Galveston (U)	24	1135	1211
Galveston	22	1168	1233
Houston (U)	11	993	1276
Houston	32	1307	1388
Laredo	2	922	781
Lubbock	176	3676	3551
Midland	96	2779	2565
Port Arthur	42	1462	1517
San Angelo	83	2484	2107
San Antonio	27	1520	1579
Victoria	20	1259	1126
Waco	67	2109	2025
Wichita Falls	139	3137	3009
UTAH			
Milford	425	6510	6099
Salt Lake City	369	6280	5552
Wendover	306	5924	
VERMONT			
Burlington	690	7529	7486
VIRGINIA			
Lynchburg	342	4263	4066
Norfolk	288	3663	3395
Richmond	276	4040	3889
Roanoke	354	4182	4071
WASHINGTON			
Olympia	476	5218	4980
Seattle (U)	350	4029	4085
Seattle	364	4313	4398
Seattle-Tacoma	443	4685	4813
Spokane	450	6674	6376
Stampede Pass (R)	809	8162	8075
Tatoosh Island (R)	533	5127	4957
Walla Walla	319	5051	
Walla Walla (U)	284	4827	4639
Yakima	388	5753	5587
WEST VIRGINIA			
Charleston	424	4479	4299
Huntington (U)	409	4416	3983
Parkersburg (U)	404	4772	4618
WISCONSIN			
Green Bay	646	8015	7805
La Crosse	598	7556	7326
Madison	601	7624	7063
Milwaukee	623	7176	6745
WYOMING			
Casper	544	7653	7111
Cheyenne	576	7471	6927
Lander	531	8279	7744
Sheridan	521	6880	7355

Data from airport unless otherwise specified.
U indicates Urban, R indicates Rural, sites.

STORM SUMMARY

APRIL 1962

STATE	TORNADOES					HAILSTORMS				WINDSTORMS				LIGHTNING				‡HEAVY SNOWSTORMS AND BLIZZARDS				# ICE STORMS				ø ALL OTHER			
	NUMBER	DAYS	DEATHS	INJURIES	†DAMAGE	DEATHS	INJURIES	†DAMAGE PROPERTY	†DAMAGE CROPS	DEATHS	INJURIES	†DAMAGE PROPERTY	†DAMAGE CROPS	DEATHS	INJURIES	†DAMAGE PROPERTY	†DAMAGE CROPS	DEATHS	INJURIES	†DAMAGE PROPERTY	†DAMAGE CROPS	DEATHS	INJURIES	†DAMAGE PROPERTY	†DAMAGE CROPS	DEATHS	INJURIES	†DAMAGE PROPERTY	†DAMAGE CROPS
Alabama						0	0	4	4	0	4	5	0													0	0	4	5
Alaska *																													
Arizona *																													
Arkansas	1	1	0	2	4	0	0	4	4	0	0	5	4	0	1	0	0												
California										0	1	4	0	0	0	1	0												
Colorado										0	1	5	0																
Connecticut *																													
Delaware *																													
Florida										0	1	3	0																
Georgia	1	1	0	0	4	0	0	6	4																				
Hawaii *																													
Idaho											17	5	4																
Illinois	1	1	0	?	4					3	?	°6	C	1	?	?	0									0	0	°5	C
Indiana	7	1	0	W	6	0	0	3	0	1	T59+	6	0	0	0	4	0												
Iowa														0	1	4	0												
Kansas									4																				
Kentucky	1	1	0	0	0					0	0	5	0	0	0	3	0												
Louisiana	5	2	0	1	5	0	0	5	4	0	0	4	0													0	0	5	4
Maine										0	0	5	0					0	0	5	0					0	0	4	0
Maryland *																													
Massachusetts										0	2	5	3					0	0	4	0					0	0	5	0
Michigan	4	1	0	0	3	0	0	3	0	1	12	6	4	0	0	5	0												
Minnesota *																													
Mississippi	3	2	1	6	6	0	0	6	6																	0	0	6	4
Missouri						0	0	5	0																				
Montana *																													
Nebraska	1	1	0	0	4																								
Nevada *																													
New Hampshire										0	0	4	0																
New Jersey *																													
New Mexico *																													
New York																										1	35	6	
North Carolina	1	1	0	0	5					4	0	5	0	0	1	4	0												
North Dakota *																													
Ohio										0	8	5	0																
Oklahoma	4	3	0	0	5	0	0	4	3	0	5	5	6	2	1	4	0												
Oregon										0	0	4	3																
Pennsylvania										0	0	4	0	0	0	4	0												
Puerto Rico *																													
Rhode Island *																													
South Carolina	1	1	0	0	3	0	0	4	0	1	0	0	0																
South Dakota	1	1	0	0	4					0	0	4	0	0	0	3	0												
Tennessee						0	0	0	3	0	0	5	0	0	0	4	0									0	0	5	4
Texas	9	4	0	13	6	0	5	6	5	0	1	5	0	2	1	?	0									0	0	5	0
Utah *																													
Vermont										0	0	5	0					0	0	4	0								
U.S. Virgin Is. *																													
Virginia	2	2	0	1	5																								
Washington										1		4	4																
West Virginia																												5	
Wisconsin														0	0	5	0												
Wyoming *																													

* No occurrence of storms or unusual weather phenomena.
‡ Includes heavy sleet storm.
# Freezing drizzle and freezing rain, commonly known as glaze.
ø For breakdown of "All Others", and for detailed listing of other storms, see the U. S. Weather Bureau monthly publication STORM DATA.
C Crop Damage
° Includes Crop Damage
W Included in windstorms
T Including tornado

† Storm damages are placed in categories varying from 1 to 9 as follows:
1 Less than $50
2 $50 to $500
3 $500 to $5,000
4 $5,000 to $50,000
5 $50,000 to $500,000
6 $500,000 to $5,000,000
7 $5,000,000 to $50,000,000
8 $50,000,000 to $500,000,000
9 $500,000,000 to $5,000,000,000

GENERAL SUMMARY OF RIVER AND FLOOD CONDITIONS

APRIL 1962

The March-April flood of 1962 on the Floyd River in Iowa was the largest flood from melting snow in this century. The snowmelt flood on the Big Sioux River in Iowa was the second highest flood of record. Crests along the Vermillion and James Rivers in South Dakota exceeded the flood of 1960.

HUDSON BAY DRAINAGE

The stage for possible spring flooding over the Red River of the North Basin was set by a hard freeze before the snow cover came. Moderately heavy snowfall during the winter followed by wet snow in February and March contributed to the flood potential. The rise began early over the Sheyenne Basin as temperatures in the 60's moved from the west over the Sheyenne Basin, but not over the Red. The crest at West Fargo, N. Dak., on the Sheyenne was 18.5 feet (flood stage 16 feet) on the 7th. The Red River of the North crested 2 feet below flood stage at Wahpeton, N. Dak., on the 17th. From Moorhead, Minn., downstream the crests were a few feet above flood stage. Some agricultural damage occurred from near Drayton, N. Dak., northward. The most severe flooding occurred on the Park River near Grafton, N. Dak. Minor damage occurred to many homes in the area. By the end of the month the Red River of the North had receded to bankfull stage at Drayton and Pembina, N. Dak.

ATLANTIC SLOPE DRAINAGE

Sharp rises occurred in all streams in Maine from the heavy rains (1.5 inches) on April 1. The only stream to reach near flood stage was the Kennebec at Augusta. Water reached into the lower sections of the Municipal Parking lot adjoining the post office but no damage resulted. Snow cover over the northwestern woods and highlands was slow in diminishing during the month as it was replenished by several snowstorms, each 7 to 10 inches deep. Enough remained at the end of April to be an important influence on river behavior during May. By mid-April all ice had left the rivers in Maine.

Minor flooding occurred on the Merrimack River in New Hampshire and Massachusetts on the 2d and 3d and on its tributary the Nashua at East Pepperell, Mass., from the 2d to the 4th. This rise was due to 1 1/2 to 2 inches of rainfall and snowmelt during the first 2 days of the month. All the snow had melted except in the northern portion where 20 inches was reported on the ground at Woodstock, N. H. Precipitation on the 7th and 8th, ranging from 1 inch in the northern portion to 1/2 inch in the southern portion, caused another rise on the Merrimack with minor flooding at Manchester, N. H., on the 10th. The Pemigewasset River exceeded flood stage at Plymouth, N. H., by 0.3 foot on the 8th. There was no snow on the ground at the time of the second flood.

The Charles River rose above flood stage at Charles River Village, Mass., on April 2 and continued above flood until the 7th. This flood was due to heavy rain (2 to 2.5 inches) on the 1st. Flooding was confined to lowlands and pastures with little, if any, damage.

Spring snowmelt which began the last week of March caused a rise in the base flows in streams in the Connecticut River Basin. Heavy rain on March 31 and April 1 caused many smaller streams and brooks to overflow their banks with minor flooding on the 1st and 2d. The Connecticut River crested near or slightly below flood stage in Vermont and New Hampshire during the afternoon of the 1st and crested 2 to 4 1/2 feet above flood stage in Massachusetts and Connecticut a day or two later. All streams continued falling until the 7th, when additional rain of 1/2 to 3/4 of an inch caused a renewed rising trend. This second rise was confined mainly to the Connecticut River where it crested slightly above flood stages in Vermont, New Hampshire, and northern Massachusetts late at night on the 8th. In Connecticut it crested about 3 1/2 feet above flood stage on the 10th. Lowland flooding along the Connecticut River, particularly in Massachusetts and Connecticut, began about the 1st, and continued until the 16th. No damages were reported.

Minor flooding occurred over the lower Winooski River in Vermont from Lake Champlain to below the Winooski Dam on April 1 and 2. This flooding was due to rains in March, snowmelt, and backwater from the ice jam at the mouth of the river. Vermont Route 127 was closed from the Heineburg bridge 1/2 mile north on the Colchester side of the river. Minor flooding occurred along the Lamoille River at Fairfax, Vt., on the 8th. Otter Creek overflowed between Brandon and Sudbury, Vt., on the 9th flooding 6 miles of Vermont Route 73.

The Hoosic River reached bankfull stage at Eagle Bridge, N. Y., during the night of March 31 and continued near bankfull stage until midday of April 1.

Brief minor flooding took place on the upper Delaware in southeastern New York on April 1. Fishs Eddy and Hale Eddy, N. Y., reported crests 1 to 3 feet above flood stage. This rise was due to 2 inches of rain on the 1st.

Slight to moderate overflows occurred along the Chemung and Susquehanna Rivers on the 1st in New York and on the 1st and 2d in Pennsylvania, due to snowmelt and moderate to heavy showers with rainfall averaging nearly 1.5 inches over the basin. Rivers rose rapidly with crests occurring during the afternoon and evening of the 1st. Precipitation on the 2d had little effect on the rivers since most of it was in the form of snow and accompanied by falling temperatures. There were no reports of damage.

Heavy rain (1 to 2 inches) on March 30 and April 1 caused minor flooding on the Neuse and Cape Fear Rivers in eastern North Carolina. Two to 4 inches of rainfall during the period from the 6th to the 13th caused slow rises with additional flooding on the Neuse and Cape Fear Rivers. The Roanoke River exceeded flood stage slightly at Randolph, Va., on the 9th. The lower Roanoke is controlled by Kerr Dam and remained within its banks, except at Williamston, N. C., where stages were nearly stationary about one-half to one foot above bankfull during the month.

Heavy precipitation on March 31 and April 1 in South Carolina and adjacent portions of North Carolina caused many streams to rise rapidly to above flood stage. Two inches of snow was reported on the ground at Blowing Rock, N. C., near the source of the Yadkin on the 2d. The Rocky River crested 6 to 7 feet above flood stage on the 1st. The Pee Dee River crested about 2 feet above flood stage between the 2d and the 6th. The Saluda River at Pelzer, S. C., was in flood from March 31 to April 2 and the Broad at Blair, S. C., from the 1st to the 3d. Additional heavy rain on the 7-8th and on the 11th and 12th caused additional flooding along these same streams. The crests during this rise were generally 2 to 6 feet higher than the earlier rise. In addition there was slight flooding along the North Fork of the Edisto at Orangeburg from the 12th to the 15th and along the main stem at Givhans Ferry from the 14th to the 23d. Damages from the flooding were generally light.

Heavy rain on the 1st caused the Ocmulgee River to rise to flood stage at Macon, Ga., on the 1st and Abbeville, Ga., on the 5th. Rather heavy rain from the 6th to the 8th resulted in minor flooding along the Altamaha and Satilla Rivers. Additional rain on the 12th and 13th caused light flooding along the Oconee River. No damage resulted beyond the flooding of low-lying river bottom land.

EAST GULF OF MEXICO DRAINAGE

Heavy rains on the 1st, ranging from 1 to more than 6 inches, caused the Apalachicola River to rise rapidly to above flood stage at Blountstown, Fla., on the 1st. Additional rains of 1 to 2 inches on the 6-7th and 12-13th kept the river in flood until the 27th. Minor flooding occurred on the Flint River at Albany, Ga., on the 18th. No damages resulted from the high water.

Heavy rainfall (4 to 6.5 inches) over southeastern Alabama on March 31 and April 1 caused light flooding on the Choctawhatchee River in Alabama. Heavy rainfall on the 11th and 12th resulted in moderate flooding on the Oostanaula, Coosa, and Tallapoosa Rivers in Alabama. The flooding was rather heavy on the Cahaba River at Centreville and Suttle and along the Alabama River.

The flooding in the Tombigbee Basin in Alabama and Mississippi between the 11th and 25th was due to moderate rains on the 6th and 7th followed by heavier rains (up to 7 inches) on the 11th and 12th. Sharp rises occurred on the upper Tombigbee. Warnings were issued in sufficient time to allow for the removal of oil drilling equipment and cattle. While this flood was not unusually high, the fact that it occurred later than usual in the season caused an increase in agricultural damage. Approximately 30,000 acres of agricultural land were inundated. Many homes were surrounded by water in the Aberdeen-Columbus area.

Heavy rainfall (2 to 6 inches) on the 11th and 12th produced flooding along the entire length of the Pearl River in Mississippi. The streams were high from precipitation that fell on the last of March and the 1 to 2 inches of rain on the 5th and 6th. This flood was similar to that of February 1961, although the stages were about 1.5 feet lower. Damage was confined mostly to low-lying farm and timberlands. Some cattle were lost in flash flooding in the vicinity of Edinburg, Miss. There was some damage to highways in that area. At Jackson, Miss., where flood stage was exceeded by nearly 16 feet, several families were evacuated from lowland areas. In the Flowood area of Rankin County 200 to 300 persons were evacuated by Civil Defense and National Guard. Downstream there were only a few evacuations at Monticello and Columbia, Miss., as most flooding was confined to the lowland areas. Heavy rainfall (3 to 8 inches) on the 28-29th caused rapid rises on the Bogue Chitto, Leaf, and Pascagoula Rivers to 2 to 6 feet above flood stage.

MISSISSIPPI SYSTEM

Upper Mississippi Basin.--The tributaries along the Minnesota River, upstream from Mankato, Minn., started to rise rapidly on March 28 and 29 from snowmelt. The crest reached Mankato on April 2 and Savage, Minn., on the 8th. This rise was not complicated by added precipitation. Although the crest at Savage was 8.4 feet above flood stage, the resulting damage to agriculture and commercial interests was light. The greatest loss was money spent to protect affected structures in the Savage-Mandota areas or for wages paid in moving movable goods to higher ground. The Root River at Hokah, Minn., was slightly above flood stage on the 6th and 7th.

Flooding that began on the Turkey, Maquoketa, and Wapsipinicon Rivers in eastern Iowa and the Pecatonica and Rock in northern Illinois during the latter part of March continued into April. This rise was due to the melting of an unusually heavy snow cover of from 5 to 20 inches with 2 to 5 inches of water content. Flooding was kept to a minimum as the snowmelt was gradual and not complicated with heavy precipitation.

All streams in the Des Moines River Basin in Iowa began flooding during the last week in March due to snowmelt and continued in flood during the first part of April. Precipitation during the snowmelt period was light. Warming also took place from south to north over a period of 10 days. Flood crests in March and April were considerably lower due to these favorable conditions. Minor damage occurred to many homes in central Iowa. Most of the homes affected were in the Waterloo-Cedar Falls area.

Streams in Illinois, which were in flood at the beginning of the month as a result of snowmelt and general rains in March, were generally falling with major crests having been reached in March. Crests were generally 3 to 4 feet above flood stage. Farmlands adjacent to the rivers were flooded. Only a limited amount of this land is normally planted in winter grains so the total damage was not heavy.

The spring snowmelt got underway over the headwaters of the Mississippi River by April 5. Warm afternoon highs and below-freezing minimums coupled with little or no frost resulted in very little runoff into the main channel. The crests along the Mississippi River through Minneapolis, Minn., were just over half bankfull and occurred on April 11 to 14. The Minnesota River rise produced a second and higher crest along the Mississippi from St. Paul, Minn., downstream, cresting at St. Paul on April 11 and at Guttenberg, Iowa, on the 18th. The crests were generally 1 to 2 feet below flood stage at all points. The Mississippi River reached flood stage and above in the reach at and below Muscatine, Iowa, on March 21. The crests ranged from slightly over bankfull stage at St. Louis, Mo., to 5.3 feet above flood stage at Grafton, Ill. Minor secondary crests occurred at many points during April. Some of these were only partially due to additional rainfall.

Missouri Basin.--The March-April flood of 1962 on the Floyd River in Iowa was the largest flood from melting snow in this century. Larger floods occurred in 1892, 1926, and 1953 from rainfall. The Floyd was above flood stage at James, Iowa, from March 25 to April 5 and the crest was about 1/2 foot higher than in 1960. Agricultural losses were at a minimum because of the early spring season, and were generally confined to fences, dikes, a few farmsteads, and a relatively small amount of stored grain.

The snowmelt flood on the Big Sioux River in Iowa during

March and April was the second highest flood of record. This flood was exceeded only by the rain and snowmelt flood of 1881. It exceeded the flood of 1960 by 1/2 to 1 foot. Skunk Creek at Sioux Falls, S. Dak., developed an ice jam at the mouth on March 28, giving rise to a record stage of 17.0 feet, which was 1/2 foot higher than the previous record stage in 1957. Major flooding occurred on the Rock and Little Rock Rivers in Iowa from March 28 into the first week of April. The second highest crest of record was reached at Rock Valley, Iowa, on March 30. The crest of 16.92 feet was only 0.1 foot lower than the record crest of 1897. The highest stages in this century resulted on the Big Sioux River from Hawarden to Akron, Iowa. The Big Sioux was out of its banks at Akron from March 28 until April 14. Crests along the Vermillion were as high or higher than in the 1960 flood. The March to April flood along the James River was about 1/2 to 1 foot higher than the flood of 1960, and reached the highest stage at Huron, S. Dak., (15.8 feet) since 1922. The James River gradient is very flat. It is one of the few rivers in the country in which a reverse flow may develop for many hours, in some sectors of the river valley; either from strong south winds, or from a strong out-pouring from a creek tributary in which the water spreads both upstream and downstream from the mouth of the creek. Since the James moves slowly, lowland flooding continued for several weeks and remained in flood in the Scotland area until the last week of April. The conditions that led up to this severe flood were discussed in the previous issue. The 1962 flood was very damaging to roads and bridges in the Big Sioux, Floyd, and James River Basins. Farm and farmstead damage was high. Urban flooding in the Sioux City, Iowa, area was somewhat less than in 1960. Many families had to be evacuated from the adjacent levee areas along the Floyd.

Snowmelt resulted in bankfull stages along the Little Sioux River in Iowa from March 28 to April 7 and at Spencer, Iowa, until April 12. The slow snowmelt kept stages high downstream for several days, but flooding occurred mostly in low-lying farm areas. The Platte River receded within its banks at Louisville, Nebr., on April 1, after cresting 2.5 feet above flood stage on March 29.

The main stem of the Missouri in the reach below the mouth of the Platte River to St. Joseph, Mo., that went out of its banks at Plattsmouth, Nebr., on March 28, continued in flood until April 4 at Rulo, Nebr. In the lower portion, at Hermann and St. Charles, Mo., the river receded within its banks on April 2.

Ohio Basin.--Heavy thundershowers during the early morning hours of the 30th caused flash floods in the southeastern part of Lincoln County, West Virginia. As near as can be determined, the rainfall occurred between 6 and 9 a.m. The State Forest Station at Buck Knob, about 6 miles southeast of Griffithsville, W. Va., reported 3.21 inches of rain up to 7 a.m. and a total of 3.86 inches during the 3-hour period. Other stations in the area reported rainfall between 1 and 2 inches. The most damage occurred in the vicinity of Griffithsville, W. Va., where many homes, schools, and churches were damaged. About 4 feet of water was reported in the new elementary school. This was the highest water ever known in this area.

Rainfall was less than 25 percent of normal in the upper Scioto Basin and 25 to 50 percent of normal in the lower Scioto in Ohio during April. This area approached drought conditions at the end of the month. This was the driest April of record at Dayton, Ohio (79 years); and the 3d driest at Cincinnati, Ohio, in 91 years.

Moderate showers on the 9th and 11th caused flooding in the middle and lower reaches of the Green River and the Barren River in Kentucky. This rise was minor compared with the high water in March.

The Wabash River in Indiana continued receding and had dropped below flood stage at all points by April 6. Damage to property was confined to flooding of a few river cabins and washing of some roads and fields. There was no crop damage.

Heavy rain over the Cumberland Basin on the 10th caused the river to rise above flood stage at Nashville, Tenn., on the 11th and downstream and also in the area around Williamsburg, Ky., on the 12th. Some lowland flooding also occurred along the Stones River on the 11th and 12th and along the Harpeth on the 11th to the 13th. The rainfall which caused this flooding averaged about 2 inches over the upper Cumberland Basin and about 2 3/4 inches over the lower. The runoff was heavy as it followed within a period of 4 or 5 days of previously heavy rains which produced moderate rises on the Cumberland and all tributary streams. Only minor damages occurred over the lower Cumberland as river stages had been higher in February. Crops had not advanced sufficiently due to the wet and cool spring to allow very great damage.

Heavy general rain, averaging 1 to 2 1/2 inches during the afternoon and night of the 10th and 3/4 to 1 1/2 inches on the 11th, produced sharp rises in the Elk and Duck Rivers in Tennessee to about 3 feet above flood stage. Some business places and basements of residences were flooded. The main stem of the Tennessee rose to above flood stage at Whitesburg, Ala., on the 11th and at Florence, Ala., on the 12th and continued in flood until the 16th. At Gilbertsville, Ky., the Tennessee was in flood from February 25 to April 24.

The main stem of the Ohio River generally crested between March 1 and March 16 and by April 1 had fallen below flood stage at all points above Mt. Vernon, Ind. Secondary crests occurred in the reach from Mt. Vernon, Ind., to Shawneetown, Ill., on March 30 and 31. At Paducah, Ky., there were additional crests on April 16 and 18. By the 26th, the Ohio had receded below flood stage at all points. It had been in flood at Cairo, Ill., since February 27 for a total of 58 days.

White Basin.--The Black River which was in flood at Black Rock, Ark., in the beginning of the month receded below flood stage on the 8th. Additional rains, on the 10th and 11th, averaging 1.5 inches, caused another rise on the Black to above flood stage on the 11th. It continued in flood until the 22d. The White River continued in flood at St. Charles, Ark., from March 6 to April 27 for a total of 52 days. Flood damage was minor, being limited to the loss of the use of lowlands for grazing purposes.

Arkansas Basin.--Minor flooding occurred on the Deep Fork River at Dewar, Okla., on the 24th. There was no damage.

Red Basin.--The flooding on the Sulphur River at Naples, Tex., from the 5th to the 8th was due to rains that fell during the latter part of March. Additional rain that averaged near 0.4 of an inch fell in the area about the time the crest was reached and was apparently sufficient to produce the overflow. The main loss from the flooding was the loss of the use of grazing lands.

Lower Mississippi Basin.--The St. Francis River was above flood stage and falling in the beginning of the month. This rise was due to heavy rains (1.5 to over 3 inches) on March 21. Minor damage occurred in the upper reaches of the basin.

Considerable flooding occurred along the Big Black River in Mississippi during the middle of the month. Flooding was heavy from Bovina southward to the mouth. Slight flooding occurred along the Tallahatchie River during this period. The Yazoo River was in flood at Yazoo City, Miss., from the 11th to the 22d and to its mouth throughout the month. Moderate flooding occurred to farm- and pasturelands in the lower reach.

The main stem of the Mississippi was in flood from New Madrid, Mo., to Helena, Ark., in the beginning of the month. During April, the main stem went above at Greenville, Miss., on the 4th and at Red River Landing, La., on the 6th and at Baton Rouge, La., on the 12th. The high stages in the lower Mississippi were due to rains in the Ohio Valley during the latter part of February and March. Heavy rains in the Ohio Valley on April 6, 11, and 12 kept the stages high throughout the month. The Mississippi was within its banks at all points by the 29th. Damages along the Mississippi were relatively light and minor as little work had been done in unprotected areas in preparation for crops.

Atchafalya Basin.--The Atchafalya at Morgan City, La., rose above flood stage several times during April, whenever there was a strong southerly wind. Early on the 28th, with southerly winds exceeding 50 m. p. h., the river reached a stage of 7.8 feet (flood stage 7 feet), the highest stage during the month.

WEST GULF OF MEXICO DRAINAGE

The minor flooding on the Calcasieu River at Hineston, La., on the 16th was due to rainfall ranging from 1 to 2 inches during the 48 hours ending at 8 a.m. on the 12th. The Calcasieu rose 7 feet at Hineston, La., to 0.2 foot above flood stage. No damages occurred.

The rains which caused the Sabine River to overflow at Mineola and Quitman, Tex., fell during the period from the 22d to the 28th. The rainfall was rather uniform over the area above both Mineola and Quitman, with the average amount during this 6-day period nearly 3.9 inches. The main loss was the lack of use of grazing lands.

The moderately heavy rains during the afternoon and night of the 26th and 27th caused minor overflow throughout the entire length of the Navidad River, with slightly above flood readings at Ganado, Tex., on the 28th. The Lavaca River at Edna, Tex., crested slightly below flood stage.

Locally heavy rains of 2 to 4 inches on the Hondo Creek in Texas caused minor flooding of tributaries and near bankfull stages on the Hondo Creek on the 23d.

The Rio Grande ran 1 to 1 1/2 feet above bankfull stage at Espanola and Albuquerque, N. Mex., during the period from the 15th to the 30th. Streamflow was contained well within the levees, which were not seriously threatened at any time.

PACIFIC SLOPE DRAINAGE

Columbia Basin.--Willow and Sand Creeks and the Idaho Canal near Idaho Falls, Idaho, were carrying capacity flow on the 25th. Flooding was averted by constant vigilance on the part of city crews and area residents using sandbags. As a consequence local flood damage was small. The Portneuf River at Pocatello, Idaho, remained above flood stage for 20 days during April. Earlier protective measures, which included sandbagging, stabilized the spread of flooding and damage along the Portneuf River in southeast Idaho. Local flood damage was small. Snowmelt due to rising temperatures caused these local floods.

PUGET SOUND DRAINAGE

Eighteen hours of heavy rain and snowmelt in the Stampede-Snoqualmie Pass sector of the Cascades caused minor flooding of the Snoqualmie and Snohomish Rivers in Washington late on the 6th and early on the 7th.

FLOOD STAGE DATA

(All dates in April unless otherwise specified)

River and station	Flood stage	Above flood stages -dates		Crest *	
		From–	To–	Stage	Date
HUDSON BAY DRAINAGE	Ft.			Ft.	
Red River of the North Basin					
Sheyenne: West Fargo, N. Dak	16	1	6	18.5	6
Red River of the North Moorehead, Minn.	17	13	23	23.5	20
Grand Forks, N. Dak.	28	16	25	31.0	21
Drayton, N. Dak.	32	19	26	36.2	21
Pembina, N. Dak.	40	21	30	43.95	21
ATLANTIC SLOPE DRAINAGE					
Pemigewasset: Plymouth, N. H.	11	8	8	11.3	8
Nashua: East Pepperell, Mass.	8	2	4	9.9	3
Merrimack: Manchester, N. H. (Amos-Keag Dam)	7 7	2 10	3 10	7.2 7.1	3 10
Lowell, Mass.	52	2	3	52.3	2
Lawrence, Mass.	20	2	3	20.4	3
Charles: Charles River Village, Mass.	4	2	7	4.4	5
Connecticut: White River Jct., Vt.	18	8	9	18.8	8
Montague City, Mass.	28	1 8	2 9	30.3 29.0	2 8
Hartford, Conn.	16	2 8	6 15	20.5 19.7	3 10
Middletown, Conn.	9	2 8	6 15	12.9 12.4	3 10
Hoosic: Eagle Bridge, N. Y.	11	Mar. 31	1	11.0	1
West Branch Delaware: Hale Eddy, N. Y.	11	1	1	12.0	1
Fishs Eddy, N. Y.	11	1	1	13.6	1
Unadilla: Rockdale, N. Y.	11	1	1	11.2	1
Chenango: Greene, N. Y.	13	1	2	13.6	2
Chemung: Chemung, N. Y.	12	1	1	13.15	1
Susquehanna: Unadilla, N. Y.	11	1	2	12.8	2
Bainbridge, N. Y.	13	1	8	E18.2	2
Conklin, N. Y.	11	Mar. 31	4	15.2	1
Binghampton, N. Y.	14	1	2	E14.75	1
Vestal, N. Y.	18	1	3	21.8	1
Towanda, Pa.	16	1	2	17.2	1
Wilkes Barre, Pa.	22	1	2	22.8	2
Roanoke: Randolph, Va.	21	9	9	21.1	[illegible]
Neuse: Neuse, N. C.	14	2 9	4 15	15.4 17.2	3 11
Smithfield, N. C.	13	2 9	6 17	16.5 18.2	3 13-14
Goldsboro, N. C.	14	7 12	10 21	15.2 17.9	9 18,19,20
Kinston, N. C.	14	11 16	13 23	14.1 15.7	12 21
Cape Fear: Lock #3, Tarheel, N. C.	42	2 10	4 15	47.0 48.0 49.5	3 10 13
Lock #2, Elizabethtown, N. C.	20	3 10	5 16	24.2 25.6 27.3	3 11 14
Rocky: Norwood, N. C.	16	1 11	1 13	E23.0 E29.0	1 12
Pee Dee: Cheraw, S. C.	30	2 12	2 14	E32.0 E35.0	2 13
Pee Dee, S. C.	19	3	22	E20.7 E22.5	6 17
Saluda: Pelzer, S. C.	6	Mar. 31 7	2 16	6.5 7.5 9.0	Mar. 31 9 12
Chappells, S. C.	13	13	15	16.2	14
Broad: Blair, S. C.	14	1 8 12	3 10 15	19.8 16.0 21.2	2 9 13
Catawba: Catawba, N. C.	8	[illegible]	9	10.6	8
North Fork Edisto: Orangeburg, S.C.	8	12	15	E8.3	14
Edisto: Givhans Ferry, S. C.	10	14	23	E10.9	19
ATLANTIC SLOPE DRAINAGE (Cont'd.)	Ft.			Ft.	
Savannah: Millhaven, Ga.	15	14	24	15.7	18-19
Clyo, Ga.	11	1	30	14.4	20-23
Ogeechee: Midville, Ga.	6	13	17	6.5	13
Dover, Ga.	7	5	21	7.9	17
Ocmulgee: Macon, Ga.	18	1 13	1 14	18.0 18.5	1 13
Abbeville, Ga.	12	[illegible]	22	13.75	19
Oconee: Milledgeville, Ga.	20	12	13	24.0	13
Dublin, Ga.	21	16		20.95	16
Mount Vernon, Ga.	16	13	22	17.8	19
Altamaha: Charlotte, Ga.	15	8	27	18.2	19
Satilla: Waycross, Ga.	16	6	9	16.4	8
Atkinson, Ga.	13	6	21	16.3	12
EAST GULF OF MEXICO DRAINAGE					
Flint: Albany, Ga.	20	18	18	20.7	18
Apalachicola: Blountstown, Fla.	15	1	27	21.2	17
Choctawatchee: Geneva, Ala.	23	3	3	23.5	3
Caryville, Fla.	12	2	7	13.9	3
Oostanaula: Resaca, Ga.	22	12	16	26.9	14
Coosa: Gadsden, Ala.	20	12	19	25.1	14
Tallapoosa: Milstead, Ala.	40	13	13	40.5	13
Cahaba: Centreville, Ala.	23	12	13	29.7	12
Suttle, Ala.	32	14	15	36.0	15
Alabama: Montgomery, Ala.	35	13	18	42.0	15
Millers Ferry, Ala.	40	14	22	46.5	18
Claiborne, Ala.	40	16	24	43.3	20-21
Old Town Creek: Tupelo, Miss.	21	11	12	24.7	12
East Fork Tombigbee: Fulton, Miss.	16	12	15	18.6	13
Tibbee: Tibbee, Miss.	23	14	15	26.3	14
Noxubee: Macon, Miss.	26	13	14	27.8	13
Black Warrior: Oliver Lock and Dam, Tuscaloosa, Ala.	47	13	15	53.2	14
Warrior Lock and Dam, Ala.	30	13	19	38.3	17
Tombigbee: Amory, Miss.	20	12	17	32.0	13
Aberdeen, Miss.	34	13	17	43.5	14
Columbus, Miss.	29	14	19	34.8	16
Gainesville, Ala.	36	12	18	42.4	13
Demopolis Lock and Dam, Ala.	48	13	25	58.4	18,19
Jackson Lock and Dam, Ala.	43	4	30	51.8	22,23
Chickasawhay: Enterprise, Miss.	20	1	2	21.8	[illegible]
Leaf: Hattiesburg, Miss.	22	29	30	24.4	30
Beaumont, Miss.	20	30	1/	21.8	30
Bogue Chitto: Franklinton, La.	11	28	30	17.4	28
Pearl: Edinburg, Miss.	20	11	19	26.6	14
Jackson, Miss.	18	3	1/	33.75	19
Monticello, Miss.	19	Mar. 31 14	3 1/	22.2 24.9	2 25
Columbia, Miss.	17	23	1/	22.1	29
Bogalusa, Miss.	15	2	1/	19.95	30
Pearl River, La.	12	5	1/	15.2	10
MISSISSIPPI SYSTEM					
Upper Mississippi Basin					
Yellow Medicine: Granite Falls (NR), Minn.	6	Mar. 30	5	7.4	Mar. 31
Redwood: Redwood Falls (NR), Minn.	[illegible]	Mar. 30	3	11.8	Mar. 31
Cottonwood: New Ulm (NR), Minn.	11	Mar. 29	3	16.0	Mar. 30
Minnesota: Mankato, Minn.	19	Mar. 31	9	21.6	2
Carver, Minn.	18	2	30	25.1	5

FLOOD STAGE DATA

(All dates in April unless otherwise specified)

River and station	Flood stage	Above flood stages -dates		Crest*	
		From—	To—	Stage	Date
MISSISSIPPI SYSTEM (Cont'd.)	Ft			Ft.	
Upper Mississippi Basin (Cont'd.)					
Minnesota (Cont'd.): Chaska, Minn.	18	3	28	24.2	7
Savage, Minn.	698	3	May 1	706.4	8
Merdota, Minn.	699	7	18	701.6	11
Root: Hokah, Minn.	47	5	7	47.3	7
Wapsipinicon: Independence, Iowa	12	Mar. 28	1	15.6	Mar. 31
Dewitt, Iowa	10	Mar. 20	12	11.8	6
Pecatonica: Martintown, Wis.	11	Mar. 19	3	15.2	Mar. 29
Freeport, Ill.	13	Mar. 23	2	13.5	Mar. 30
Shirland, Ill.	E10	Mar. 15	15	15.0	Mar. 26
Rock: Rockton, Ill.	E10	Mar. 25	9	11.35	Mar. 31
Rockford, Ill.	E43	Mar. 24	9	49.0	Mar. 29
Joslin, Ill.	10	Mar. 13	22	15.9	Mar. 22
Cedar: Charles City, Iowa	9	Mar. 29	Mar. 31	17.9	Mar. 30
Waterloo, Iowa	15	Mar. 31	1	19.3	Mar. 31
Cedar Rapids, Iowa	13	2	3	15.2	2
Iowa: Steamboat Rock, Iowa	10	Mar. 30	3	11.4	1
Marshalltown, Iowa	13	Mar. 23	10	15.9	Mar. 29
Wapello, Iowa	10	Mar. 20	18	12.8 15.4 11.1	3 6 15
North Skunk: Sigourney, Iowa	16	Mar. 19	Mar. 29	20.4	Mar. 22
Skunk: Oskaloosa, Iowa	15	Mar. 19	3	18.8	Mar. 29
West Fork Des Moines: Humboldt, Iowa	8	Mar. 31	18	11.1	2
East Fork Des Moines: Humboldt, Iowa	20	Mar. 31	1	20.5	1
Boone: Webster City, Iowa	10	Mar. 30	1	13.1	Mar. 31
North Raccoon: Jefferson, Iowa	10	Mar. 24	8	17.6	Mar. 30
South Raccoon: Redfield, Iowa	14	Mar. 20 Mar. 24	Mar. 20 Mar. 25	17.5 14.4	Mar. 20 Mar. 24
Raccoon: Van Meter, Iowa	13	Mar. 21 Mar. 24	Mar. 22 4	14.2 17.2	Mar. 20 Mar. 31
Des Moines S.W. 18th St., Iowa	12	Mar. 25	5	15.4	2
Des Moines: Fort Dodge, Iowa	10	Mar. 30	6	13.3	1
Boone, Iowa	12	Mar. 29	6	17.1	2
Des Moines 2nd Ave., Iowa	23	2	5	24.3	3
Des Moines SE 14th St., Iowa	21	Mar. 26	10	27.3	3
Tracy, Iowa	14	Mar. 19	13	20.7	5
Eddyville, Iowa	15	Mar. 19	15	21.5	6
Ottumwa, Iowa	9	Mar. 20	12	14.6	6
Sangamon: Riverton, Ill.	13	Mar. 11	2	E16.9 20.75	Mar. 15 Mar. 23
Illinois: La Salle, Ill.	20	Mar. 12	8	22.5 21.2 20.55	1 4 6
Peoria, Ill.	18	Mar. 15	13	22.0 18.1	1 13
Havana, Ill.	14	Mar. 15	23	15.85 21.3	Mar. 17 Mar. 27
Beardstown, Ill.	14	Mar. 13	24	23.4	Mar. 29
Meredosia, Ill.	428	Jan. 13	1/	429.4 440.4	Mar. 7 Mar. 31
Kaskaskia: Carlyle, Ill.	21	Mar. 12	5	21.4 E26.2	Mar. 16-17 Mar. 24
Big Muddy: Murphysboro, Ill.	16	Mar. 21	16	17.9	13
Mississippi: Muscatine, Iowa	16	2	9	16.6	6-8
Keithsburg, Ill.	12	Mar. 21	28	15.0 13.6	7 21
Burlington, Iowa	15	Mar. 23 20	13 23	16.7 15.1	7 22-23
Keokuk, Iowa	16	1	11	18.6	8
Gregory Landing, Mo.	15	Mar. 23 22	15 23	19.0 15.1	8 23
MISSISSIPPI SYSTEM (Cont'd.)	Ft			Ft	
Upper Mississippi Basin (Cont'd.)					
Mississippi (Cont'd.): Quincy, Ill.	17	Mar. 23 20	16 24	21.3 17.2	9 24
Hannibal, Mo.	16	Mar. 23	29	21.0 17.4	9 24
Louisiana, Mo.	15	Mar. 21	29	19.1 16.35 16.3	9 23 26
Clarkesville, Mo.	25	Mar. 21	29	29.35 25.9 26.1 25.75	9 21 23 27
Winfield, Mo.	26	Mar. 22	26	30.05 26.3	10 24
Grafton, Ill.	18	Mar. 22	20	21.9	8-11
Alton, Ill.	21	Mar. 22	15	23.1	8
Chester, Ill.	27	Mar. 23	11	30.6	Mar. 25-26
Cape Girardeau, Mo.	32	Mar. 23	15	36.2	Mar. 27
Missouri Basin					
James: Huron, S. Dak.	11	Mar. 27	12	15.8 15.8	1 2
Little Rock: Doon, Iowa	15	Mar. 27	7	20.2 16.6	Mar. 29 5
Rock: Rock Valley, Iowa	11	Mar. 28	9	14.3	5
Big Sioux: Sioux Falls, S. Dak.	10	Mar. 27	1	17.0	Mar. 28
Hawarden, Iowa	15	Mar. 28	11	23.2	Mar. 30
Akron, Iowa	16	Mar. 27	13	22.8	Mar. 31
Floyd: Alton, Iowa	12	Mar. 27	2	18.35	Mar. 28
LeMars, Iowa	20	Mar. 27	1	22.9 24.1	Mar. 28 Mar. 29
James, Iowa	16	Mar. 25	5	22.1 22.4	Mar. 28 Mar. 29
West Fork Little Sioux: Holly Springs, Iowa	18			22.4	Mar. 28
Little Sioux: Spencer, Iowa	10	Mar. 28	12	14.5	Mar. 31
Cherokee, Iowa	18	Mar. 28	7	24.0	Mar. 29
Correctionville, Iowa	19	Mar. 28	7	22.45 23.1	Mar. 28 Mar. 30
Peterson, Iowa	15			15.5	Mar. 28
Platte: Louisville, Nebr.	7	Mar. 23	1	9.5	Mar. 29
Missouri: Nebraska City, Nebr.	18	Mar. 29	3	20.6	Mar. 31
Rulo, Nebr.	17	Mar. 29	4	19.65	1
St. Joseph, Mo.	17	Mar. 30	3	18.8	1
Hermann, Mo.	21	Mar. 21	2	25.3	Mar. 23
St. Charles, Mo.	25	Mar. 22	2	28.3 26.4	Mar. 24 Mar. 31
Ohio Basin					
Barren: Bowling Green, Ky.	28	1 12	2 15		
Green: Munfordville, Ky.	28	1 13	3 14		
Lock 6, Brownsville, Ky.	18	1 13	4 15		
Lock 4, Woodbury, Ky.	33	1 11	5 17	38.5 39.8	3 15
Lock 2, Calhoun, Ky.	23	2	21	25.4 25.9	6 18
Wabash: Hutsonville, Ind.	T20	Mar. 23	6	22.6	Mar. 27
Vincennes, Ind.	16	Mar. 22	2	20.4	Mar. 29
Mt. Carmel, Ill.	17	Mar. 24	3	22.2	Mar. 30
New Harmony, Ind.	15	Mar. 26	3	17.0	Mar. 31
Saline: Harrisburg, Ill.	13	Mar. 31 9 11 29	3 9 12 29		
Stones: Donelson, Tenn.	T40	11	12	47.4	12
Harpeth: Kingston Springs, Tenn.	15	11	13	26.5	11
Cumberland: Williamsburg, Ky.	21	12	14	22.2	13

FLOOD STAGE DATA

(All dates in April unless otherwise specified)

River and station	Flood stage	Above flood stages -dates		Crest*	
		From–	To–	Stage	Date
MISSISSIPPI SYSTEM (Cont'd.)	Ft.			Ft.	
Ohio Basin (Cont'd.)					
Cumberland (Cont'd.): Nashville, Tenn.	40	11	14	43.0	12
Clarksville, Tenn.	46	11	16	51.0	13
Eddyville, Ky.	50	1 9	5 22	52.8 58.2	3 16-17
Elk: Fayetteville, Tenn.	659	11	14	662.0	13
Duck: Shelbyville, Tenn.	719	11	13	722.3	12
Columbia, Tenn.	32	11	14	37.8	13
South Chickamauga Creek: Chickamauga, (NR), Tenn.	10	12	14	13.4	13
Tennessee: Whitesburg, Ala.	560	11	16	563.8	13
Florence, Ala.	419	12	16	422.0	13
Gilbertsville, Ky.	320	Feb. 25	3	339.2	Mar. 3
Ohio: Dam 47, Newburgh, Ind.	38	17	19		
Mt. Vernon, Ind.	35	Mar. 27	1	35.7	Mar. 30
Dam 49, Uniontown, Ky.	37	Mar. 27	5	38.1	Mar. 31
Shawneetown, Ill.	33	Feb. 28 12	11 22	49.7 38.3	Mar. 9 Mar. 31
Dam 50, Fords Ferry, Ky.	34	Feb. 27	23	52.9	Mar. 10
Paducah, Ky.	39	Mar. 29 12	8 22	40.6 40.4	1 16&18
Dam 52, Brookport, Ill.	37	Feb. 27	24	49.9	Mar. 12
Dam 53, Grand Chain, Ill.	42	Feb. 27	25	53.2	Mar. 12
Cairo, Ill.	40	Feb. 27	26	50.5	Mar. 16
White Basin					
Black: Black Rock, Ark.	14	Mar. 26 11	8 22	16.6 18.9	Mar. 27 13
White: Clarendon, Ark.	26	3	13	26.6	6
St. Charles, Ark.	25	Mar. 5	27	26.5	9
Arkansas Basin					
Deep Fork: Dewar, Okla.	18	24	24	18.5	24
Red Basin					
Caddo: Glenwood, Ark.	10	Mar. 31	Mar. 31	10.3	Mar. 31
Sulphur: Naples, Texas	22	5	8	23.5	6
Lower Mississippi Basin					
St. Francis: Fisk, Mo.	20	Mar. 23	3	24.3	Mar. 26
St. Francis, Ark.	18	Mar. 25	12	20.7	Mar. 31
Tallahatchie: Swan Lake, Miss.	26	14	17	26.3	15

River and station	Flood stage	Above flood stages -dates		Crest*	
		From–	To–	Stage	Date
MISSISSIPPI SYSTEM (Cont'd.)	Ft.			Ft.	
Lower Mississippi Basin (Cont'd.)					
Yazoo: Yazoo City, Miss.	29	11	22	30.4	12
Big Black: Pickens, Miss.	16	12	17	18.3	13
Bovina, Miss.	28	12	24	38.2	16
Mississippi: New Madrid, Mo.	34	Mar. [illegible]	25	39.3	Mar.17&18
Caruthersville, Mo.	32	Mar. 1	26	38.0 37.8 36.3	Mar.17-18 3-4 17
Memphis, Tenn.	34	Mar. 6	24	36.8 36.6 35.0	Mar. 21 5-6 18-20
Helena, Ark.	44	Mar. 31	14	44.7	7-10
Greenville, Miss.	48	4	16	48.2	12
Red River Landing, La.	45	6 28	25 29	45.7	16
Baton Rouge, La.	35	12 28	21 28	35.3	15,16
Atchafalaya Basin					
Atchafalaya: Morgan City, La.	7	5 6 10 11 24 25 27	5 6 11 12 24 25 1/	7.2 7.2 7.1 7.15 7.0 7.1 7.8	5 6 11 11 24 25 28
WEST GULF OF MEXICO DRAINAGE					
Calcasieu: Hineston, La.	12	16	16	12.2	16
Lake Fork: Quitman, Texas	16	30	1/		
Sabine: Mineola, Texas	14	27	1/		
Lavaca: Ganado, Texas	21	29	29	21.5	29
Rio Grande: Espanola, N. Mex.	7	16	30	8.5	21&22
Albuquerque, N. Mex.	6	15	30		
PACIFIC SLOPE DRAINAGE					
Columbia Basin					
Portneuf: Pocatello, Idaho	6	Mar. 26 19	10 30	6.7 6.25	Mar.30-31 27
PUGET SOUND DRAINAGE					
Snoqualmie: Carnation, Wash.	51	6	7	51.3	7
Snohomish: Snohomish, Wash.	22	6	7	24.5	7

*	Provisional
E	Estimated
T	Tentative
1/	Continued at end of month

RAWINSONDE DATA

Average monthly values

Standard pressure surface (mb)	ALBANY, N. Y. (1005 MB.)					
	Number of observations	Dynamic height	Temperature	Relative humidity	Wind	
					Direction	Speed
SURFACE	30	86	4.2	75	259	3.3
1,000--	30	124			221	3.7
950----	30	541	4.1	65	270	9.1
900----	30	981	2.5	64	285	15.0
850----	30	1,442	.2	65	283	18.8
800----	30	1,926	- 2.6	64	282	20.0
750----	30	2,432	- 5.4	58	280	22.5
700----	30	2,974	- 8.1	56	270	24.5
650----	30	3,540	-10.9	51	276	26.0
600----	30	4,158	-14.6	46	273	28.4
550----	30	4,805	-18.6	42	272	31.1
500----	30	5,517	-23.4	38	270	32.6
450----	30	6,274	-28.2		272	35.8
400----	30	7,118	-33.8		271	38.5
350----	30	8,042	-40.0		263	37.5
300----	30	9,080	-46.8		270	35.9
250----	30	10,273	-52.8		279	36.9
200----	30	11,703	-55.5		279	39.6
175----	30	12,555	-55.2		279	37.3
150----	30	13,541	-53.9		276	35.9
125----	30	14,712	-54.6		274	36.1
100----	30	16,139	-55.7		275	34.4
80-----	30	17,560	-55.5		273	27.4
70-----	30	18,414	-55.6		268	21.6
60-----	29	19,397	-54.8		270	18.1
50-----	29	20,564	-54.3		264	15.3
40-----	28	21,995	-54.0		259	10.5
30-----	26	23,842	-53.8		261	9.5
25-----	25	25,010	-53.5		258	9.5
20-----	25	26,449	-52.5		263	10.1
15-----	22	28,310	-50.6		266	9.9
10-----	9	31,005	-46.3			

Standard pressure surface (mb)	ALBUQUERQUE, N. MEX. (838 MB.)					
	Number of observations	Dynamic height	Temperature	Relative humidity	Wind	
					Direction	Speed
SURFACE	30	1,619	7.7	48	53	2.7
1,000--	30	129				
950----	30	561				
900----	30	1,016				
850----	30	1,497				
800----	30	2,001	9.7	35	315	4.7
750----	30	2,530	6.6	36	307	11.7
700----	30	3,097	2.5	39	299	15.5
650----	30	3,681	- 1.9	42	294	17.5
600----	30	4,323	- 6.7	43	284	18.8
550----	30	4,988	-11.6	38	285	22.3
500----	30	5,721	-16.5		284	26.2
450----	30	6,495	-22.3		292	25.1
400----	30	7,361	-28.8		293	29.1
350----	30	8,302	-36.2		290	28.6
300----	30	9,353	-44.7		293	30.7
250----	30	10,549	-53.5		295	36.7
200----	29	11,965	-59.9		294	38.5
175----	29	12,800	-59.3		292	39.4
150----	29	13,765	-59.6		289	38.3
125----	29	14,901	-61.4		288	30.9
100----	28	16,271	-64.0		286	24.5
80-----	27	17,636	-64.7		287	12.8
70-----	27	18,458	-63.4		288	7.8
60-----	25	19,409	-61.8		288	5.1
50-----	24	20,546	-59.0		14	1.9
40-----	24	21,952	-57.3		11	1.7
30-----	24	23,781	-54.4		335	3.3
25-----	24	24,955	-52.1		301	3.3
20-----	22	26,410	-49.5		281	4.9
15-----	18	28,308	-46.7		272	10.9
10-----	5	31,070	-42.5			

Standard pressure surface (mb)	AMARILLO, TEXAS (892 MB.)					
	Number of observations	Dynamic height	Temperature	Relative humidity	Wind	
					Direction	Speed
SURFACE	30	1,095	7.5	76	231	1.7
1,000--	30	136				
950----	30	565				
900----	30	1,023				
850----	30	1,492	9.2	60	222	7.2
800----	30	1,993	8.0	51	272	7.0
750----	30	2,522	5.8	44	284	11.3
700----	30	3,085	2.4	41	282	15.3
650----	30	3,677	- 1.4	39	283	17.1
600----	30	4,312	- 6.3	41	282	17.3
550----	30	4,981	-11.3	39	281	18.7
500----	30	5,710	-16.7	34	278	21.8
450----	30	6,483	-22.7	33	279	22.7
400----	30	7,346	-29.1		281	27.2
350----	30	8,286	-36.5		279	29.5
300----	30	9,335	-44.8		283	33.0
250----	30	10,531	-53.3		283	38.1
200----	30	11,944	-59.2		281	42.4
175----	30	12,783	-58.0		283	40.2
150----	30	13,754	-58.3		284	37.7
125----	29	14,890	-60.3		283	33.4
100----	26	16,266	-62.1		279	23.3
80-----	24	17,640	-62.9		288	15.5
70-----	24	18,467	-61.4		287	12.2
60-----	23	19,425	-59.8		295	8.4
50-----	22	20,565	-58.1		307	2.9
40-----	21	21,977	-55.6		275	2.5
30-----	21	23,821	-53.0		280	5.8
25-----	18	25,005	-51.7		284	5.1
20-----	11	26,449	-50.1		331	4.1
15-----						
10-----						

Standard pressure surface (mb)	ANCHORAGE, ALASKA (1005 MB.)					
	Number of observations	Dynamic height	Temperature	Relative humidity	Wind	
					Direction	Speed
SURFACE	30	29	1.0	72	314	1.7
1,000--	30	68			262	1.4
950----	30	478	.0	59	17	4.5
900----	30	911	- 2.5	58	42	5.4
850----	30	1,362	- 5.4	61	66	5.6
800----	30	1,835	- 8.7	64	92	7.0
750----	30	2,331	-11.9	66	108	5.8
700----	30	2,857	-15.0	60	135	5.6
650----	30	3,412	-18.4	59	202	1.2
600----	30	4,006	-22.2	56	222	.8
550----	30	4,637	-26.2	53	292	1.9
500----	30	5,324	-30.6	51	320	2.1
450----	30	6,058	-35.6	49	331	4.7
400----	30	6,875	-41.2		317	6.6
350----	30	7,771	-46.7		325	6.0
300----	30	8,783	-50.5		349	6.2
250----	30	9,969	-51.0		328	10.3
200----	30	11,428	-49.0		302	11.1
175----	30	12,306	-48.2		292	12.2
150----	30	13,321	-48.5		294	11.5
125----	29	14,515	-49.2		280	11.1
100----	29	15,975	-50.3		279	11.7
80-----	29	17,431	-50.6		269	11.5
70-----	29	18,302	-50.7		267	12.0
60-----	29	19,305	-50.9		273	12.0
50-----	29	20,490	-51.5		276	10.5
40-----	29	21,936	-52.1		272	10.3
30-----	28	23,799	-52.8		280	9.3
25-----	28	24,974	-53.1		268	7.6
20-----	24	26,434	-53.1		317	8.2
15-----	15	28,309	-53.2		13	8.9
10-----						

Standard pressure surface (mb)	ANNETTE, ALASKA (1008 MB.)					
	Number of observations	Dynamic height	Temperature	Relative humidity	Wind	
					Direction	Speed
SURFACE	29	37	5.1	82	151	5.6
1,000--	29	104			153	9.3
950----	29	518	2.2	78	164	14.8
900----	29	956	- .5	76	172	17.5
850----	29	1,411	- 3.3	76	179	17.5
800----	29	1,888	- 6.3	74	188	15.9
750----	29	2,390	- 9.3	71	194	17.7
700----	29	2,922	-12.4	63	197	18.8
650----	29	3,481	-15.9	60	200	19.6
600----	29	4,084	-19.7	56	201	22.9
550----	29	4,720	-24.1	52	205	21.4
500----	29	5,414	-29.1	48	208	23.7
450----	29	6,152	-34.6	44	214	26.8
400----	29	6,973	-40.8		220	28.2
350----	29	7,869	-46.7		224	32.8
300----	29	8,882	-50.4		231	35.8
250----	28	10,064	-52.0		239	29.9
200----	28	11,511	-50.3		245	25.8
175----	28	12,383	-49.9		243	23.9
150----	26	13,395	-50.6		254	21.6
125----	25	14,578	-51.4		255	18.5
100----	25	16,022	-52.1		256	16.9
80-----	25	17,464	-52.5		262	15.3
70-----	24	18,325	-52.8		263	14.6
60-----	24	19,318	-53.3		269	12.8
50-----	24	20,491	-53.7		275	11.3
40-----	22	21,917	-54.4		285	10.1
30-----	17	23,762	-54.6		302	9.9
25-----	14	24,919	-54.7		310	11.3
20-----	11	26,321	-54.9			
15-----						
10-----						

Standard pressure surface (mb)	ATHENS, GA. (991 MB.)					
	Number of observations	Dynamic height	Temperature	Relative humidity	Wind	
					Direction	Speed
SURFACE	30	246	9.1	82	314	2.3
1,000--	30	168				
950----	30	593	11.1	60	263	6.8
900----	30	1,047	8.9	60	264	11.3
850----	30	1,519	6.6	56	266	14.6
800----	30	2,015	4.2	54	266	17.7
750----	30	2,537	2.0	44	261	20.6
700----	30	3,093	- .9	44	265	24.7
650----	30	3,677	- 4.2	47	269	27.0
600----	30	4,308	- 8.1	44	267	32.1
550----	30	4,972	-12.3	37	267	35.0
500----	30	5,701	-16.9		269	38.3
450----	30	6,478	-22.1		271	39.4
400----	30	7,341	-28.4		271	43.1
350----	30	8,285	-35.3		269	46.6
300----	30	9,341	-43.2		270	53.0
250----	30	10,547	-51.7		268	56.9
200----	30	11,971	-57.8		265	64.3
175----	30	12,811	-58.4		266	62.2
150----	30	13,780	-59.1		265	57.1
125----	30	14,918	-60.8		267	47.2
100----	30	16,300	-62.8		270	31.9
80-----	30	17,674	-62.4		271	24.3
70-----	30	18,505	-61.4		270	17.5
60-----	30	19,460	-59.7		269	12.6
50-----	29	20,607	-57.3		268	7.2
40-----	28	22,026	-54.9		282	2.7
30-----	27	23,874	-52.7		267	5.1
25-----	25	25,055	-51.1		270	7.0
20-----	23	26,504	-49.2		266	9.9
15-----	17	28,398	-45.1		269	25.5
10-----	6	31,159	-38.9			

Standard pressure surface (mb)	BARROW, ALASKA (1018 MB.)					
	Number of observations	Dynamic height	Temperature	Relative humidity	Wind	
					Direction	Speed
SURFACE	30	8	-20.2	70	52	0.8
1,000--	30	143	-17.6	71	57	3.1
950----	30	527	-15.7	69	44	2.1
900----	30	936	-14.8	61	59	1.6
850----	30	1,369	-15.2	54	51	1.7
800----	30	1,826	-16.3	50	311	.6
750----	30	2,307	-17.9	47	266	1.2
700----	30	2,824	-20.1	45	266	2.5
650----	30	3,365	-21.3	46	282	3.7
600----	30	3,953	-26.1	49	274	5.1
550----	30	4,572	-30.0	48	278	6.2
500----	30	5,250	-34.4	45	268	7.6
450----	30	5,972	-39.5		274	8.7
400----	30	6,778	-45.1		277	11.3
350----	30	7,659	-50.2		278	13.2
300----	29	8,655	-54.5		277	15.5
250----	28	9,818	-54.6		283	18.5
200----	28	11,255	-51.5		280	21.6
175----	28	12,123	-51.2		280	23.5
150----	28	13,125	-51.3		278	26.4
125----	27	14,313	-51.7		278	28.4
100----	27	15,759	-52.1		274	29.9
80-----	27	17,202	-52.6		275	32.8
70-----	27	18,063	-53.1		275	33.4
60-----	27	19,057	-53.0		272	34.2
50-----	27	20,231	-53.4		273	39.1
40-----	26	21,653	-53.5		272	42.6
30-----	24	23,500	-54.3		275	47.2
25-----	23	24,647	-54.1		274	45.3
20-----	17	26,064	-53.8		270	50.7
15-----	6	28,068	-51.7			
10-----						

Standard pressure surface (mb)	BARTER IS., ALASKA (1018 MB.)					
	Number of observations	Dynamic height	Temperature	Relative humidity	Wind	
					Direction	Speed
SURFACE	30	15	-19.8	73	219	0.8
1,000--	30	145	-17.3	68	94	1.2
950----	30	533	-14.5	64	119	2.5
900----	30	943	-13.1	61	133	3.1
850----	30	1,378	-13.4	56	157	2.5
800----	30	1,839	-14.5	53	189	1.9
750----	30	2,321	-16.7	55	205	2.7
700----	30	2,842	-19.4	53	229	3.9
650----	30	3,382	-22.6	52	235	5.6
600----	30	3,973	-26.1	47	247	8.5
550----	30	4,592	-30.0	45	249	10.3
500----	30	5,271	-34.3	43	257	10.1
450----	30	5,992	-39.2		264	14.0
400----	30	6,799	-45.1		266	17.3
350----	30	7,680	-50.5		270	19.8
300----	30	8,673	-55.3		274	22.2
250----	30	9,834	-54.9		276	23.5
200----	30	11,272	-51.6		281	26.0
175----	29	12,148	-50.9		280	26.8
150----	29	13,151	-50.8		281	29.7
125----	27	14,338	-50.9		283	30.5
100----	26	15,790	-51.0		282	33.6
80-----	25	17,247	-51.7		278	35.2
70-----	25	18,115	-51.3		279	36.9
60-----	24	19,126	-51.4		278	37.1
50-----	24	20,309	-51.7		278	40.6
40-----	22	21,762	-51.6		280	43.1
30-----	21	23,637	-51.9		280	39.6
25-----	17	24,920	-50.9		282	34.0
20-----	15	26,359	-51.2		307	24.1
15-----	5	28,514	-48.3			
10-----						

Standard pressure surface (mb)	BETHEL, ALASKA (1009 MB.)					
	Number of observations	Dynamic height	Temperature	Relative humidity	Wind	
					Direction	Speed
SURFACE	30	39	- 5.7	86	322	6.6
1,000--	30	108			310	9.5
950----	30	510	- 4.9	70	346	8.5
900----	30	936	- 6.3	65	338	7.6
850----	30	1,382	- 8.1	62	329	8.4
800----	30	1,852	- 9.7	55	324	8.5
750----	30	2,345	-12.1	53	317	9.7
700----	30	2,874	-14.5	46	323	12.0
650----	30	3,428	-17.2	42	323	15.0
600----	30	4,029	-20.6		320	17.1
550----	30	4,662	-24.7	44	323	18.1
500----	30	5,356	-29.0	41	321	20.2
450----	30	6,093	-33.8		320	24.1
400----	30	6,919	-39.6		318	28.2
350----	30	7,821	-45.1		319	31.9
300----	30	8,840	-49.5		317	33.0
250----	30	10,027	-51.8		317	32.3
200----	30	11,477	-50.5		311	28.2
175----	30	12,349	-49.9		304	25.3
150----	30	13,359	-49.5		303	21.8
125----	30	14,552	-50.1		302	20.0
100----	30	16,007	-50.9		300	16.9
80-----	30	17,457	-51.6		295	15.0
70-----	30	18,317	-51.7		293	12.8
60-----	30	19,322	-51.9		292	11.5
50-----	29	20,507	-52.2		293	10.7
40-----	29	21,949	-52.7		280	9.7
30-----	29	23,804	-53.2		280	10.3
25-----	27	24,986	-53.2		282	7.4
20-----	24	26,438	-52.8		283	7.6
15-----	10	28,253	-51.8			
10-----						

Standard pressure surface (mb)	BISMARCK, N. DAK. (956 MB.)					
	Number of observations	Dynamic height	Temperature	Relative humidity	Wind	
					Direction	Speed
SURFACE	30	505	1.0	69	50	1.4
1,000--	30	141				
950----	30	559			83	1.2
900----	30	995	2.5	56	260	5.6
850----	30	1,456	1.6	53	290	10.3
800----	30	1,942	- .7	53	304	13.4
750----	30	2,454	- 3.4	50	307	15.2
700----	30	2,998	- 6.6	50	306	18.1
650----	30	3,569	-10.3	46	302	20.6
600----	30	4,185	-14.0	42	301	24.9
550----	30	4,837	-18.3	39	302	28.2
500----	30	5,547	-23.0		300	30.5
450----	30	6,305	-28.3		297	32.4
400----	30	7,145	-34.3		294	35.6
350----	30	8,066	-41.0		288	37.7
300----	30	9,096	-48.6		290	38.7
250----	30	10,278	-55.0		289	39.2
200----	30	11,696	-56.7		290	42.6
175----	29	12,552	-55.1		291	41.0
150----	29	13,541	-53.5		294	37.1
125----	29	14,711	-54.7		295	30.5
100----	28	16,142	-56.0		301	25.8
80-----	28	17,559	-56.4		300	17.9
70-----	28	18,415	-56.1		307	13.8
60-----	28	19,389	-55.4		316	11.7
50-----	28	20,554	-54.6		320	6.6
40-----	28	21,982	-54.3		343	4.1
30-----	27	23,830	-53.6		30	4.3
25-----	27	25,003	-53.2		33	3.9
20-----	25	26,450	-52.1		359	5.4
15-----	18	28,337	-50.9		345	4.9
10-----						

Standard pressure surface (mb)	BOISE, IDAHO (917 MB.)					
	Number of observations	Dynamic height	Temperature	Relative humidity	Wind	
					Direction	Speed
SURFACE	30	868	5.9	64	177	2.9
1,000--	30	150				
950----	30	577				
900----	30	1,025	9.3	49	192	2.1
850----	30	1,498	8.3	42	293	3.9
800----	30	1,996	4.8	45	293	7.6
750----	30	2,516	1.3	48	289	12.4
700----	30	3,070	- 2.4	48	281	13.6
650----	30	3,648	- 6.2	45	280	17.1
600----	30	4,277	- 9.7	38	275	20.4
550----	30	4,935	-14.2	37	273	23.3
500----	30	5,660	-19.3	36	276	26.4
450----	30	6,426	-25.1		273	27.4
400----	30	7,280	-31.5	39	277	30.3
350----	30	8,212	-38.5		280	33.4
300----	30	9,253	-46.3		285	40.6
250----	30	10,444	-54.1		285	43.3
200----	30	11,857	-59.0		278	41.0
175----	30	12,695	-58.1		277	39.4
150----	30	13,669	-57.0		276	34.0
125----	30	14,822	-57.7		280	30.3
100----	29	16,229	-59.0		279	22.9
80-----	29	17,628	-59.4		283	15.9
70-----	29	18,469	-59.1		290	10.7
60-----	28	19,437	-58.5		292	7.6
50-----	27	20,585	-57.3		301	4.1
40-----	24	22,003	-56.4		350	2.3
30-----	23	23,832	-55.3		78	3.5
25-----	19	24,997	-54.4		116	3.3
20-----	11	26,447	-52.8			
15-----						
10-----						
7------						
5------						

Standard pressure surface (mb)	BROWNSVILLE, TEXAS (1014 MB.)					
	Number of observations	Dynamic height	Temperature	Relative humidity	Wind	
					Direction	Speed
SURFACE	30	7	19.3	91	132	6.2
1,000--	30	130	19.6	85	138	8.9
950----	30	569	17.6	76	163	15.5
900----	30	1,034	17.0	57	176	15.0
850----	30	1,520	15.4	45	184	11.7
800----	30	2,031	12.8	36	201	9.7
750----	30	2,567	9.4	35	208	7.2
700----	30	3,138	6.2	31	238	6.4
650----	30	3,738	2.1	31	267	11.1
600----	30	4,383	- 2.3	32	268	13.8
550----	30	5,058	- 7.5	32	269	17.5
500----	30	5,802	-12.8		269	18.8
450----	30	6,590	-18.0		262	25.1
400----	30	7,467	-24.4		264	28.8
350----	30	8,427	-31.3		266	35.2
300----	30	9,499	-39.8		264	42.9
250----	30	10,720	-48.8		261	52.3
200----	30	12,158	-56.4		262	60.4
175----	30	13,000	-59.3		264	61.4
150----	30	13,959	-62.0		264	55.2
125----	30	15,076	-66.2		266	49.2
100----	30	16,418	-69.2		265	35.9
80-----	30	17,744	-70.5		269	19.6
70-----	30	18,548	-67.7		258	10.9
60-----	29	19,474	-64.9		254	3.1
50-----	27	20,600	-60.2		73	3.7
40-----	25	22,003	-55.2		73	8.4
30-----	24	23,860	-51.4		70	13.4
25-----	24	25,050	-49.2		77	15.3
20-----	23	26,522	-45.9		73	11.5
15-----	11	28,455	-42.3		61	10.9
10-----	7	31,218	-37.9			
7------						
5------						

Standard pressure surface (mb)	BUFFALO, N. Y. (990 MB.)					
	Number of observations	Dynamic height	Temperature	Relative humidity	Wind	
					Direction	Speed
SURFACE	30	218	3.8	76	233	5.1
1,000--	30	135				
950----	30	552	5.3	60	254	13.2
900----	30	992	2.9	60	270	14.8
850----	30	1,452	.0	63	274	15.5
800----	30	1,935	- 2.9	60	278	16.9
750----	30	2,440	- 5.6	58	278	17.7
700----	29	2,980	- 8.4	53	276	21.4
650----	29	3,546	-11.7	46	277	21.6
600----	29	4,161	-15.2	42	277	23.7
550----	29	4,811	-19.2	40	274	23.5
500----	29	5,516	-23.9	38	269	22.9
450----	29	6,269	-29.3		270	25.5
400----	29	7,110	-34.7		267	27.4
350----	29	8,031	-40.8		268	30.9
300----	29	9,066	-47.3		261	34.4
250----	29	10,258	-52.4		264	39.6
200----	28	11,697	-55.2		270	38.5
175----	28	12,552	-54.1		275	35.8
150----	28	13,542	-53.6		275	32.8
125----	28	14,713	-54.7		269	30.1
100----	28	16,139	-55.3		270	25.5
80-----	28	17,558	-56.0		273	18.1
70-----	28	18,405	-56.1		274	16.7
60-----	28	19,387	-55.7		273	14.4
50-----	28	20,551	-54.8		269	12.2
40-----	28	21,980	-54.2		272	11.5
30-----	28	23,827	-53.4		263	11.1
25-----	28	25,002	-52.8		267	9.9
20-----	28	26,445	-51.6		265	9.1
15-----	26	28,318	-49.3		272	10.7
10-----	13	30,950	-45.5			
7------						
5------						

Standard pressure surface (mb)	BURRWOOD, LA. (1019 MB.)					
	Number of observations	Dynamic height	Temperature	Relative humidity	Wind	
					Direction	Speed
SURFACE	30	3	16.9	90	117	2.9
1,000--	30	159	17.6	73	128	4.1
950----	30	598	15.5	62	155	7.4
900----	30	1,054	13.5	50	185	5.2
850----	30	1,534	11.5	46	232	5.6
800----	30	2,039	9.2	40	248	9.1
750----	30	2,571	6.6	37	254	12.6
700----	30	3,135	3.8		263	15.0
650----	30	3,728	.2		269	17.3
600----	30	4,370	- 3.8		269	21.2
550----	30	5,045	- 8.2		269	23.5
500----	30	5,785	-13.4		267	27.2
450----	30	6,573	-19.1		263	29.0
400----	30	7,445	-25.5		263	34.0
350----	30	8,400	-32.4		262	39.4
300----	30	9,469	-40.1		259	50.9
250----	30	10,690	-48.8		259	63.1
200----	30	12,128	-56.7		258	70.3
175----	30	12,970	-59.2		260	70.9
150----	30	13,930	-61.5		260	67.4
125----	30	15,053	-64.5		262	55.2
100----	30	16,408	-67.4		263	41.0
80-----	30	17,751	-67.1		269	22.5
70-----	30	18,570	-65.4		267	12.0
60-----	30	19,506	-62.0		239	4.5
50-----	30	20,642	-58.7		227	1.4
40-----	30	22,057	-55.0		62	6.6
30-----	29	23,909	-51.4		74	6.8
25-----	28	25,101	-48.9		77	7.4
20-----	26	26,572	-46.2		77	4.1
15-----	26	28,503	-41.6		140	.6
10-----	23	31,268	-37.2		260	3.9
7------	12	33,764	-32.9			
5------						

Standard pressure surface (mb)	CANTON IS., PACIFIC AREA (1009 MB.)					
	Number of observations	Dynamic height	Temperature	Relative humidity	Wind	
					Direction	Speed
SURFACE	28	4	26.6	86	87	8.4
1,000--	28	87	26.1	85	88	9.9
950----	28	534	23.4	84	87	16.3
900----	28	1,011	20.4	82	85	20.2
850----	28	1,504	17.6	78	87	21.4
800----	28	2,021	15.3	69	86	21.0
750----	28	2,570	13.2	59	88	18.7
700----	28	3,145	10.1	55	86	14.8
650----	28	3,756	6.4	50	85	12.2
600----	28	4,411	2.7	47	86	6.4
550----	28	5,104	- 1.3	41	80	2.7
500----	28	5,865	- 5.6	35	288	1.0
450----	28	6,681	-10.3	30	267	2.7
400----	28	7,582	-16.6		258	5.4
350----	28	8,567	-24.0		241	6.4
300----	28	9,676	-32.6		225	10.1
250----	28	10,934	-42.6		207	13.8
200----	28	12,404	-54.0		218	17.3
175----	28	13,250	-60.0		228	18.8
150----	27	14,197	-67.2		236	17.9
125----	27	15,276	-74.9		262	22.9
100----	27	16,547	-81.6		261	25.5
80-----	24	17,804	-76.6		262	19.6
70-----	23	18,582	-71.6		265	19.6
60-----	23	19,499	-67.4		270	23.1
50-----	22	20,606	-64.2		273	25.8
40-----	22	21,983	-60.6		276	23.5
30-----	22	23,792	-56.4		112	4.1
25-----	22	24,958	-53.0		90	26.6
20-----	22	26,407	-50.0		91	47.8
15-----	21	28,306	-45.5		87	57.5
10-----	19	31,039	-40.6		90	66.8
7------	16	33,480	-39.5		90	62.6
5------	7	35,798	-34.5			

See reference note at end of table

RAWINSONDE DATA

Average monthly values

APRIL 1962

Standard pressure surface (mb.)	CAPE HATTERAS, N. C. (1018 MB.)						CARIBOU, ME. (989 MB.)						CHARLESTON, S. C. (1018 MB.)						COLD BAY, ALASKA (1012 MB.)						COLUMBIA, MO. (989 MB.)					
					Wind						Wind						Wind						Wind						Wind	
	Number of observations	Dynamic height	Temperature	Relative humidity	Direction	Speed	Number of observations	Dynamic height	Temperature	Relative humidity	Direction	Speed	Number of observations	Dynamic height	Temperature	Relative humidity	Direction	Speed	Number of observations	Dynamic height	Temperature	Relative humidity	Direction	Speed	Number of observations	Dynamic height	Temperature	Relative humidity	Direction	Speed
SURFACE	30	4	13.2	78	246	2.1	30	191	-0.4	84	282	2.9	30	13	12.3	83	252	1.9	30	30	-0.9	88	314	9.7	30	238	6.6	75	169	2.1
1,000	30	153	13.7	66	252	3.1	30	101					30	161	14.3	67	234	1.2	30	120			317	17.5	30	141				
950	30	580	11.4	59	256	7.6	30	510	-.3	69	287	4.7	30	590	13.2	55	269	6.4	30	528	-4.2	85	317	16.5	30	566	8.9	56	228	7.4
900	30	1,034	8.7	56	253	10.7	30	943	-2.4	66	292	6.4	30	1,047	10.5	56	265	10.1	30	953	-5.8	79	323	18.1	30	1,012	6.9	55	269	10.7
850	30	1,505	5.8	58	250	14.2	30	1,395	-4.1	64	284	9.7	30	1,522	7.8	53	263	15.0	30	1,400	-6.9	67	328	19.2	30	1,479	4.1	52	274	11.9
800	30	1,998	2.9	52	250	17.3	30	1,872	-5.9	61	281	16.5	30	2,020	5.5	48	263	18.8	29	1,872	-8.1	63	326	18.7	30	1,971	1.6	50	281	13.0
750	30	2,520	.5	44	251	22.0	30	2,373	-7.8	54	280	19.4	30	2,543	3.1	44	263	22.7	29	2,369	-10.2	56	331	19.8	30	2,486	-.7	46	291	15.7
700	30	3,070	-2.2	42	251	27.0	30	2,911	-9.9	51	276	23.1	30	3,102	.3	39	263	25.3	29	2,901	-12.3	51	337	20.6	30	3,038	-3.4	37	294	20.0
650	30	3,652	-5.0	40	256	29.0	30	3,476	-12.7	49	277	27.2	30	3,686	-2.9	37	266	27.6	29	3,462	-14.8	49	337	22.5	30	3,613	-7.0		292	22.3
600	30	4,281	-8.7		261	32.1	30	4,088	-15.8	49	274	29.5	30	4,323	-6.7	37	268	31.5	29	4,068	-18.2	46	336	23.3	30	4,240	-10.9		289	27.0
550	30	4,943	-12.9	38	262	35.0	30	4,735	-19.7	47	274	35.0	30	4,989	-11.4	35	267	36.5	29	4,707	-21.9	42	337	23.5	30	4,897	-14.9		287	26.6
500	30	5,670	-17.7	39	262	40.4	30	5,441	-24.1	44	271	35.0	30	5,722	-16.1		267	40.6	29	5,409	-26.6	40	334	26.0	30	5,618	-19.8		285	30.1
450	30	6,442	-22.9		262	44.7	30	6,196	-29.3	42	270	36.9	30	6,500	-21.2		266	44.5	29	6,156	-31.4	41	338	31.9	30	6,385	-25.5		283	33.8
400	30	7,304	-29.0		261	50.5	30	7,035	-35.1	43	273	39.2	30	7,367	-27.3		265	49.4	29	6,987	-37.4		340	37.7	30	7,236	-31.7		283	36.3
350	30	8,246	-35.7		262	53.4	30	7,953	-41.4		269	43.5	30	8,316	-34.1		265	52.1	27	7,897	-43.1		342	36.1	30	8,168	-38.3		281	41.8
300	30	9,303	-42.8		259	60.0	30	8,986	-47.3		271	49.4	30	9,379	-41.9		264	57.9	27	8,921	-49.0		342	35.4	30	9,211	-45.8		279	45.5
250	30	10,512	-50.5		264	64.3	30	10,180	-51.6		269	49.9	30	10,590	-50.8		266	65.5	27	10,108	-51.5		335	30.7	30	10,405	-53.1		279	46.0
200	30	11,944	-56.4		268	66.6	30	11,623	-53.5		270	48.0	30	12,018	-57.5		264	70.9	27	11,551	-52.7		329	24.3	29	11,821	-57.6		280	47.8
175	30	12,789	-57.4		266	63.7	30	12,484	-52.4		269	42.9	30	12,858	-58.9		268	66.6	27	12,416	-51.7		321	22.2	29	12,666	-56.3		279	44.9
150	30	13,761	-58.0		270	56.3	30	13,482	-51.8		271	35.2	30	13,824	-60.1		269	63.1	27	13,417	-51.2		319	13.6	29	13,647	-56.1		281	41.2
125	29	14,905	-59.3		267	48.2	30	14,664	-51.9		273	32.1	30	14,958	-61.7		268	52.3	25	14,594	-51.7		301	14.6	28	14,807	-57.3		282	35.8
100	29	16,294	-61.3		268	35.2	30	16,111	-52.1		265	29.1	30	16,333	-64.1		271	38.1	24	16,040	-52.1		297	8.5	28	16,212	-58.8		281	28.2
80	28	17,679	-60.6		267	23.5	29	17,553	-52.2		271	19.4	29	17,705	-62.8		272	23.7	24	17,484	-52.5		289	8.5	28	17,611	-59.2		286	20.0
70	26	18,520	-59.0		265	15.9	29	18,416	-52.8		267	18.1	29	18,530	-61.2		275	16.5	24	18,347	-52.9		286	6.0	28	18,449	-58.4		284	16.3
60	25	19,483	-57.8		273	9.1	29	19,414	-52.6		257	15.3	29	19,491	-59.4		281	7.8	24	19,339	-53.0		264	5.1	28	19,420	-58.0		285	12.2
50	24	20,635	-56.1		265	4.5	28	20,596	-52.4		261	14.4	29	20,639	-57.4		290	3.3	23	20,514	-53.1		286	3.9	28	20,571	-56.7		292	8.7
40	24	22,062	-53.5		286	.8	28	22,041	-52.2		259	13.4	29	22,060	-54.3		9	2.1	23	21,951	-53.4		268	3.5	28	21,991	-55.2		293	7.6
30	24	23,920	-52.1		7	1.7	27	23,903	-52.2		247	9.5	27	23,918	-51.6		68	1.9	21	23,802	-53.6		203	1.7	25	23,840	-53.1		297	7.2
25	22	25,102	-51.2		306	2.9	27	25,085	-52.0		240	6.2	26	25,105	-50.4		310	1.9	20	24,971	-53.7		253	3.5	23	25,020	-52.1		287	7.0
20	22	26,559	-48.8		289	7.8	25	26,534	-51.5		242	5.6	24	26,567	-47.9		277	4.9	14	26,418	-53.1		256	3.9	18	26,476	-50.6		277	12.0
15	22	28,469	-44.1		285	15.0	22	28,407	-50.1		252	7.2	20	28,492	-42.6		269	16.1	6	28,327	-52.1				14	28,375	-47.6			
10	19	31,226	-38.7		273	32.1	20	31,080	-45.1		265	12.0	5	31,256	-38.3															
7	9	33,732	-33.5				14	33,472	-39.6		266	23.5																		
5							5	35,666	-37.1																					

Standard pressure surface (mb.)	DAYTON, OHIO (982 MB.)						DENVER, COLO. (837 MB.)						DODGE CITY, KANS. (925 MB.)						EL PASO, TEXAS (882 MB.)						ELY, NEV. (810 MB.)					
					Wind						Wind						Wind						Wind						Wind	
	Number of observations	Dynamic height	Temperature	Relative humidity	Direction	Speed	Number of observations	Dynamic height	Temperature	Relative humidity	Direction	Speed	Number of observations	Dynamic height	Temperature	Relative humidity	Direction	Speed	Number of observations	Dynamic height	Temperature	Relative humidity	Direction	Speed	Number of observations	Dynamic height	Temperature	Relative humidity	Direction	Speed
SURFACE	30	297	5.2	72	228	1.6	30	1,611	3.8	61	233	2.3	30	792	6.3	78	182	1.0	30	1,193	13.6	33	276	2.9	30	1,908	1.4	65	213	4.5
1,000	30	150					30	141					30	147					30	114					30	168				
950	30	572	6.5	60	260	7.8	30	567					30	571					30	556					30	596				
900	30	1,014	4.2	57	269	13.0	30	1,016					30	1,019	8.4	60	203	5.8	30	1,024					30	1,044				
850	30	1,477	1.4	55	280	14.0	30	1,487					30	1,492	7.8	54	235	9.3	30	1,505	15.1	26	271	4.1	30	1,513				
800	30	1,963	-1.3	49	278	15.3	30	1,984	6.7	51	311	5.4	30	1,990	6.0	48	270	10.1	30	2,016	12.1	26	269	9.3	30	2,008	5.3	48	198	3.3
750	30	2,474	-4.0	47	275	16.7	30	2,509	4.0	48	315	8.2	30	2,513	3.7	46	285	11.1	30	2,549	8.6	28	275	12.2	30	2,534	4.5	38	298	2.9
700	30	3,017	-7.0	49	272	17.3	30	3,069	.2	46	315	10.3	30	3,074	.4	47	285	13.2	30	3,119	4.1	30	283	14.2	30	3,093	.4	39	278	7.0
650	30	3,587	-10.4	48	273	19.0	30	3,654	-4.2	50	318	13.2	30	3,658	-3.5	46	288	14.8	30	3,715	-.5	30	283	13.4	30	3,678	-3.4	40	287	9.7
600	30	4,204	-13.8	38	272	22.2	30	4,284	-8.6	47	303	18.5	30	4,292	-7.8	43	282	18.7	30	4,352	-5.1	29	276	15.3	30	4,311	-7.5	38	288	13.4
550	30	4,855	-17.9		271	24.7	30	4,947	-13.3	41	301	22.3	30	4,954	-12.7	42	280	21.2	30	5,022	-10.2		270	17.9	30	4,978	-11.8	33	286	16.5
500	30	5,567	-22.5		273	27.8	30	5,672	-18.5	38	298	23.5	30	5,683	-17.8	38	277	22.3	30	5,759	-15.3		273	21.4	30	5,706	-17.0	30	280	20.6
450	30	6,327	-27.6		271	33.0	29	6,440	-24.8	38	292	25.1	30	6,453	-22.2		276	26.0	30	6,539	-21.4		279	23.7	30	6,482	-22.7		280	22.7
400	30	7,171	-33.3		270	38.3	29	7,295	-31.2	35	290	27.6	30	7,312	-30.3		275	27.8	30	7,405	-28.1		281	26.4	30	7,342	-29.3		277	25.3
350	30	8,098	-39.4		268	42.4	29	8,227	-38.4		292	28.0	30	8,247	-37.8		277	26.8	30	8,349	-35.4		283	29.7	30	8,282	-36.4		281	28.6
300	30	9,140	-45.6		265	44.7	29	9,268	-46.5		296	32.1	30	9,291	-46.1		276	31.1	30	9,408	-43.8		282	35.0	30	9,333	-44.6		287	30.7
250	30	10,339	-51.8		266	46.2	29	10,457	-54.1		295	35.6	30	10,481	-54.1		270	36.9	30	10,609	-52.6		286	40.8	30	10,531	-53.1		279	36.9
200	30	11,772	-55.0		269	47.4	29	11,865	-59.5		293	37.5	30	11,893	-58.9		277	39.6	30	12,026	-59.2		285	48.2	30	11,945	-59.6		283	36.3
175	30	12,629	-55.0		270	45.5	29	12,705	-57.4		288	37.1	30	12,734	-57.5		279	37.5	30	12,864	-59.2		283	46.2	30	12,781	-59.1		281	36.1
150	30	13,611	-54.7		273	40.8	29	13,681	-56.9		291	34.6	30	13,708	-56.8		280	37.3	30	13,826	-60.9		281	42.4	30	13,748	-58.9		281	36.1
125	30	14,776	-55.6		273	33.8	29	14,832	-58.4		292	31.3	30	14,859	-58.6		283	33.6	30	14,953	-64.0		282	37.1	30	14,891	-60.0		288	27.8
100	30	16,192	-57.3		273	26.4	29	16,229	-60.1		295	24.3	29	16,263	-60.6		288	26.0	29	16,317	-67.2		281	26.0	30	16,279	-61.7		282	21.6
80	30	17,600	-57.8		275	19.6	29	17,619	-60.7		299	15.7	29	17,649	-61.4		287	17.3	29	17,662	-67.2		282	15.2	30	17,660	-62.4		283	12.4
70	30	18,448	-57.2		274	15.2	29	18,461	-59.9		295	11.1	29	18,487	-60.3		292	12.4	28	18,474	-65.4		286	9.1	30	18,495	-60.8		304	8.5
60	30	19,420	-56.5		271	12.4	29	19,417	-59.0		303	8.2	29	19,444	-59.0		290	7.6	28	19,412	-63.4		297	4.1	30	19,449	-59.8		307	3.9
50	30	20,580	-55.4		270	11.5	28	20,573	-56.4		314	6.2	29	20,591	-57.8		297	8.2	28	20,542	-60.0		137	.8	29	20,589	-58.7		351	2.7
40	30	22,006	-54.7		272	9.3	28	21,986	-56.7		338	5.2	29	22,007	-55.6		297	5.4	28	21,943	-57.1			.0	27	21,996	-56.9		16	3.7
30	29	23,855	-53.2		269	7.6	27	23,823	-54.2		336	2.9	29	23,850	-53.5		296	6.0	28	23,779	-53.8		301	.6	26	23,828	-54.9		289	1.7
25	29	25,032	-52.4		278	7.8	26	24,996	-53.0		314	4.5	28	25,027	-52.1		285	6.4	27	24,957	-51.9		286	1.6	24	24,996	-53.5		286	5.1
20	28	26,480	-50.2		273	12.6	26	26,442	-51.1		303	7.6	27	26,477	-50.1		278	9.1	26	26,417	-48.3		253	4.7	22	26,435	-51.1		280	8.9
15	17	28,370	-47.7		275	22.7	13	28,319	-48.8		289	13.0	19	28,353	-47.6		273	20.2	22	28,336	-45.2		259	9.3	9	28,297	-48.1			
10																			7	31,052	-41.3									

Standard pressure surface (mb.)	ENIWETOK, MARSHALL IS. (1010 MB.)						FAIRBANKS, ALASKA (994 MB.)						FLINT, MICH. (989 MB.)						FORT WORTH, TEXAS (995 MB.)						GLASGOW, MONT. (933 MB.)					
					Wind						Wind						Wind						Wind						Wind	
	Number of observations	Dynamic height	Temperature	Relative humidity	Direction	Speed	Number of observations	Dynamic height	Temperature	Relative humidity	Direction	Speed	Number of observations	Dynamic height	Temperature	Relative humidity	Direction	Speed	Number of observations	Dynamic height	Temperature	Relative humidity	Direction	Speed	Number of observations	Dynamic height	Temperature	Relative humidity	Direction	Speed
SURFACE	29	5	27.3	78	84	11.3	30	135	-3.1	74	335	4.1	30	234	2.7	80	256	2.9	30	180	13.5	83	103	1.0	30	696	2.8	68	120	1.2
1,000	29	97	26.5	79	82	12.4	30	90					30	141					30	141					30	129				
950	29	546	23.1	84	82	14.6	30	496	-2.9	56	2	3.3	30	559	4.5	64	272	8.7	30	574	13.3	74	172	7.8	30	548				
900	29	1,020	20.1	79	87	12.8	30	923	-4.9	61	266	.6	30	998	2.5	59	281	12.4	30	1,029	12.4	66	208	10.3	30	991	5.6	56	264	5.6
850	29	1,513	17.6	73	95	9.9	30	1,371	-7.2	66	264	3.7	30	1,459	.1	55	277	14.0	30	1,507	10.9	60	233	10.3	30	1,458	3.9	50	288	11.5
800	29	2,030	15.3	61	89	9.7	30	1,841	-10.1	70	245	4.5	30	1,942	-2.8	51	276	15.0	30	2,011	8.3	55	249	11.7	30	1,948	1.4	47	296	14.0
750	29	2,575	13.1	44	81	7.0	30	2,331	-13.1	70	207	5.2	30	2,452	-5.2	45	281	15.3	30	2,543	5.5	48	261	13.4	30	2,461	-1.8	46	293	16.5
700	29	3,153	9.9	43	71	5.6	30	2,859	-16.5	67	250	6.0	30	2,991	-8.1	41	280	16.5	30	3,103	2.5	44	273	15.3	30	3,010	-5.5	44	293	18.8
650	29	3,766	6.5	39	45	4.9	30	3,407	-20.4	63	251	7.4	30	3,561	-11.6	38	277	18.5	30	3,696	-1.6	41	283	16.3	30	3,582	-9.3	39	295	21.4
600	29	4,419	3.0	38	17	2.7	30	4,000	-24.2	59	231	9.5	30	4,172	-15.2	35	278	19.8	30	4,331	-5.9	41	286	18.7	30	4,201	-13.4	38	294	24.1
550	29	5,117	-1.2	33	341	2.1	30	4,620	-27.9	50	235	10.7	30	4,821	-19.5	34	278	21.6	30	4,997	-10.8	42	282	20.4	30	4,848	-18.0	35	294	27.6
500	29	5,873	-5.1	24	4	1.9	30	5,310	-31.9	44	248	10.7	30	5,526	-24.4	33	277	22.9	30	5,732	-16.0	40	275	22.7	30	5,563	-23.1	37	290	30.9
450	29	6,688	-9.8	21	341	3.7	30	6,037	-36.5		257	10.3	30	6,278	-29.2		274	25.6	30	6,510	-21.8	38	270	24.3	30	6,316	-28.9	39	294	34.2
400	29	7,593	-15.9	21	309	5.2	30	6,856	-42.0		269	11.9	30	7,118	-35.0		277	26.6	30	7,375	-28.0	34	270	28.4	30	7,158	-35.2		293	36.3
350	29	8,587	-22.5	22	296	6.6	30	7,749	-47.9		270	13.2	30	8,037	-41.3		271	29.7	30	8,320	-35.4		268	31.9	30	8,074	-41.9		293	38.5
300	29	9,700	-30.8	22	272	16.5	30	8,754	-52.5		271	15.0	30	9,070	-47.1		272	35.4	30	9,375	-43.9		268	38.1	30	9,101	-49.0		294	42.2
250	29	10,966	-41.0		269	19.4	30	9,929	-52.5		278	18.1	30	10,263	-52.0		273	37.1	30	10,575	-52.7		266	43.9	30	10,280	-55.0		293	42.0
200	29	12,443	-53.4		266	19.6	30	11,380	-49.6		282	18.3	30	11,698	-54.1		277	41.2	30	11,993	-58.8		270	50.1	30	11,696	-56.9		289	41.0
175	29	13,289	-60.1		262	20.6	30	12,256	-48.9		281	18.5	30	12,556	-53.5		276	38.7	30	12,832	-58.5		272	49.0	30	12,545	-54.5		292	35.8
150	29	14,235	-67.3		271	15.5	30	13,268	-49.0		279	21.0	30	13,548	-53.0		277	33.6	30	13,801	-58.8		272	44.7	30	13,533	-54.1		291	33.8
125	29	15,313	-74.7		287	16.5	30	14,463	-49.7		279	23.1	30	14,721	-54.1		277	30.3	30	14,938	-61.5		275	37.7	30	14,701	-54.5		291	31.5
100	25	16,585	-81.0		325	6.6	30	15,921	-50.4		279	21.6	30	16,147	-55.8		279	24.1	30	16,312	-64.1		280	28.4	30	16,124	-55.7		296	25.3
80	20	17,843	-78.6		52	3.9	30	17,377	-50.5		277	21.0	30	17,568	-55.7		281	18.5	30	17,676	-64.6		279	18.5	30	17,540	-56.5		300	18.7
70	17	18,610	-73.7		59	1.2	30	18,243	-50.9		273	20.6	30	18,422	-55.7		274	15.9	30	18,503	-63.1		275	13.6	30	18,386	-56.4		300	15.3
60	17	19,521	-68.4		233	3.9	30	19,249	-51.6		275	21.4	30	19,401	-55.5		275	14.4	30	19,446	-60.9		278	8.4	30	19,366	-56.1		304	13.0
50	17	20,626	-64.5		262	3.7	29	20,429	-51.8		276	22.7	30	20,569	-55.1		284	11.3	29	20,585	-58.1		285	3.9	27	20,530	-55.3		307	11.3
40	17	22,009	-58.8		68	5.1	27	21,878	-51.8		268	20.4	30	21,995	-53.9		279	7.8	28	21,997	-55.6		323	.8	26	21,961	-54.7		312	7.6
30	16	23,834	-54.0		87	20.2	22	23,722	-53.3		272	25.1	30	23,847	-53.0		277	6.0	26	23,841	-52.8		21	1.7	22	23,805	-54.2		336	4.9
25	16	25,012	-51.3		87	28.8	19	24,886	-53.0		270	27.0	30	25,024	-52.6		276	6.2	25	25,027	-51.0		328	1.6	19	24,964	-53.7		328	5.6
20	16	26,472	-48.5		89	36.7	15	26,334	-53.0		265	20.6	30	26,471	-51.1		281	8.4	24	26,483	-48.4		279	7.4	15	26,388	-52.9		305	7.8
15	16	28,385	-43.9		85	45.3	5	28,274	-53.2				27	28,361	-49.1		281	10.5	14	28,383	-44.2		275	15.5	8	28,239	-52.3			
10	16	31,139	-39.2		88	53.4							8	31,046	-44.8				5	31,082	-40.7									
7	14	33,615	-34.9		88	60.6																								
*5	11	35,959	-32.4		90	58.7																								

See reference note at end of table

*4------ 5 37,527 -30.0

RAWINSONDE DATA

Average monthly values

	GRAND JUNCTION, COLO. (852 MB.)						GREAT FALLS, MONT. (887 MB.)						GREEN BAY, WIS. (991 MB.)						GREENSBORO, N. C. (987 MB.)						GUAM, MARIANA, IS. (998 MB.)					
					Wind						Wind						Wind						Wind						Wind	
Standard pressure surface (mb)	Number of observations	Dynamic height	Temperature	Relative humidity	Direction	Speed	Number of observations	Dynamic height	Temperature	Relative humidity	Direction	Speed	Number of observations	Dynamic height	Temperature	Relative humidity	Direction	Speed	Number of observations	Dynamic height	Temperature	Relative humidity	Direction	Speed	Number of observations	Dynamic height	Temperature	Relative humidity	Direction	Speed
SURFACE	30	1,474	7.5	50	104	2.5	30	1,123	3.6	63	233	6.4	30	210	1.4	76	317	3.1	30	273	7.7	84	247	2.9	30	111	24.6	91	96	4.5
1,000	30	131					30	135					30	133					30	159					30	91				
950	30	559					30	561					30	551	2.1	67	315	6.4	30	587	10.3	62	266	9.7	30	540	22.8	81	96	14.0
900	30	1,018					30	1,005					30	984	.9	65	287	7.8	30	1,035	7.8	60	271	11.9	30	1,012	20.1	78	106	12.8
850	30	1,495			112	3.9	30	1,473	6.2	44	251	14.4	30	1,442	-1.2	64	287	8.9	30	1,504	4.9	59	265	15.5	30	1,504	17.7	71	110	10.9
800	30	1,997	8.2	38	124	2.9	30	1,966	2.9	44	272	14.4	30	1,924	-3.3	60	291	10.5	30	1,995	2.3	56	265	16.1	30	2,021	15.4	62	114	8.0
750	30	2,523	5.0	39	282	2.1	30	2,484	-1.1	49	281	15.5	30	2,430	-5.6	57	291	13.4	30	2,514	-.6	53	261	18.3	30	2,565	12.8	55	118	8.9
700	30	3,086	.7	44	280	7.0	30	3,032	-4.8	48	282	19.0	30	2,971	-8.4	60	289	17.1	30	3,064	-3.5	43	257	22.7	30	3,144	10.0	45	119	7.2
650	30	3,668	-3.7	46	295	11.7	30	3,608	-8.4	49	281	21.2	30	3,540	-12.1	55	289	18.7	30	3,645	-6.3		263	27.0	30	3,754	6.7	40	117	6.4
600	30	4,304	-8.2	47	294	15.3	30	4,227	-12.5	49	277	22.2	30	4,151	-15.4	47	295	20.2	30	4,268	-10.0		265	30.7	30	4,410	3.0		127	4.3
550	30	4,965	-12.9	49	286	18.1	30	4,879	-17.1	46	278	25.8	30	4,798	-19.8	42	295	22.2	30	4,932	-13.8		264	33.8	30	5,105	-.6		159	3.9
500	30	5,694	-18.0	44	285	20.8	30	5,595	-22.0	42	277	29.3	30	5,503	-24.4	37	292	25.8	30	5,652	-18.7		265	37.3	28	5,865	-5.0		157	2.3
450	30	6,466	-23.9	39	294	23.9	30	6,354	-27.7	42	281	31.3	30	6,256	-29.7		299	28.2	30	6,424	-23.9		265	40.6	28	6,682	-10.1		182	2.7
400	30	7,323	-30.3	40	295	25.8	30	7,198	-34.0	43	284	33.6	30	7,092	-35.4		299	28.8	30	7,279	-30.0		267	45.9	28	7,585	-15.8		354	.6
350	30	8,259	-37.6		294	28.4	30	8,120	-41.1		287	38.7	30	8,011	-41.2		295	32.3	30	8,218	-36.6		264	49.7	28	8,578	-22.6		293	4.9
300	30	9,304	-45.6		293	33.6	30	9,152	-48.8		287	45.1	30	9,045	-47.1		299	33.4	30	9,269	-44.1		266	53.6	28	9,692	-30.7		267	12.8
250	30	10,496	-53.9		297	38.7	30	10,332	-55.4		284	47.8	30	10,239	-51.9		298	38.3	30	10,472	-51.6		268	59.5	28	10,959	-40.8		255	17.9
200	30	11,906	-59.7		299	38.3	30	11,743	-58.0		284	44.3	30	11,675	-54.2		290	38.1	30	11,902	-56.5		271	59.3	27	12,435	-53.3		245	20.0
175	30	12,743	-58.7		294	38.1	30	12,588	-56.3		280	43.5	30	12,532	-53.8		288	36.7	30	12,748	-56.4		271	53.2	27	13,281	-60.4		251	18.5
150	30	13,713	-58.2		292	35.4	30	13,572	-54.8		281	37.5	30	13,526	-52.8		287	31.7	30	13,725	-57.4		269	49.9	27	14,224	-68.0		258	14.8
125	30	14,857	-59.6		291	30.5	30	14,738	-55.2		283	30.3	30	14,702	-53.6		283	28.2	30	14,875	-58.5		272	40.2	27	15,297	-75.8		268	10.3
100	30	16,247	-61.4		292	23.7	30	16,157	-56.9		281	22.7	30	16,134	-54.7		285	24.5	30	16,271	-60.8		269	34.2	25	16,567	-81.5		31	1.9
80	30	17,625	-62.2		289	18.8	30	17,568	-57.3		287	16.9	30	17,559	-55.3		289	20.2	30	17,659	-60.3		273	26.4	22	17,824	-80.6		88	8.7
70	30	18,459	-61.3		302	12.4	30	18,417	-56.7		295	11.9	30	18,413	-55.3		288	17.1	30	18,502	-59.5		271	17.7	21	18,579	-77.2		95	6.4
60	30	19,411	-60.1		313	6.2	28	19,396	-57.0		300	10.1	29	19,393	-55.3		286	13.2	29	19,462	-58.0		278	11.9	21	19,484	-67.9		101	2.5
50	30	20,551	-58.6		309	4.7	28	20,552	-55.9		306	8.2	29	20,558	-54.7		293	8.5	28	20,616	-56.6		283	7.6	21	20,587	-65.2		122	4.3
40	29	21,960	-57.1		357	2.9	28	21,973	-55.3		336	6.2	28	21,985	-54.1		292	7.6	27	22,036	-54.5		260	4.9	21	21,964	-59.3		88	8.7
30	29	23,788	-55.0		338	3.5	28	23,813	-54.4		355	4.3	26	23,830	-52.9		298	8.5	27	23,885	-53.1		270	5.2	21	23,791	-53.6		87	16.1
25	29	24,957	-53.5		297	5.2	26	24,977	-54.0		356	3.9	26	25,009	-52.0		308	6.0	26	25,060	-52.6		287	7.0	20	24,975	-50.8		90	23.5
20	29	26,398	-51.8		290	9.9	25	26,410	-53.5		23	3.9	25	26,459	-51.3		294	7.4	25	26,504	-50.4		288	10.7	18	26,434	-48.6		91	30.1
15	27	28,279	-49.2		274	14.2	25	28,264	-52.1		338	2.3	14	28,350	-49.6		305	5.4	21	28,392	-46.8		275	22.3	16	28,347	-45.1		81	38.1
10	24	30,963	-44.3		266	24.5	22	30,907	-48.7		295	5.1							13	31,097	-41.2				7	31,041	-42.1			
7	22	33,376	-40.4		267	37.3	19	33,273	-44.8		288	13.0							5	33,527	-37.4									
5	19	35,650	-37.3		265	43.3	16	35,564	-40.6																					

	HILO, HAWAII (1017 MB.)						HUNTINGTON, W. VA. (988 MB.)						INTERNAT. FALLS, MINN. (973 MB.)						JACKSON, MISS. (1008 MB.)						JACKSONVILLE, FLA. (1020 MB.)					
SURFACE	30	11	20.0	86	230	5.1	30	246	6.3	74	229	1.7	30	360	-3.3	77	331	1.0	30	94	12.5	86	195	1.2	30	5	14.0	87	272	2.1
1,000	30	156	21.1	80	206	4.7	30	148					30	143					30	160	13.5	78	206	1.6	30	169	15.5	71	269	3.1
950	30	600	18.0	82	126	6.6	30	572	8.0	59	260	6.0	30	551	-1.3	70	290	1.4	30	594	13.0	67	228	6.6	30	607	14.4	57	242	5.8
900	30	1,060	14.7	85	112	7.2	30	1,017	5.3	62	266	11.1	30	982	-2.1	63	264	5.2	30	1,046	11.2	56	250	8.7	30	1,059	12.2	51	241	8.4
850	30	1,542	11.7	85	109	5.8	30	1,481	2.5	63	267	14.2	30	1,436	-2.9	57	308	8.5	30	1,522	8.7	52	258	11.1	30	1,536	9.7	49	257	10.1
800	30	2,048	9.8	68	97	5.8	30	1,969	-.1	62	273	15.2	30	1,915	-4.5	47	314	12.6	30	2,021	6.3	50	267	11.9	30	2,038	7.5	45	260	13.2
750	30	2,589	8.6	38	100	6.4	30	2,485	-3.0	61	277	15.9	30	2,418	-6.4	40	309	15.3	30	2,548	3.5	48	272	15.5	30	2,568	5.1	38	265	15.5
700	30	3,152	6.7		102	6.2	30	3,027	-5.8	56	274	17.9	30	2,958	-8.9	37	304	16.9	30	3,105	.7	43	276	19.6	30	3,127	2.2		267	18.3
650	30	3,756	3.6		102	4.1	30	3,602	-9.1	52	272	20.2	30	3,522	-12.0	36	303	19.2	30	3,694	-2.6	38	276	24.1	30	3,722	-1.1		270	19.8
600	30	4,402	-.4		122	1.9	30	4,220	-12.5	42	273	24.9	30	4,137	-15.5	38	306	22.2	30	4,328	-6.1	34	274	27.6	30	4,356	-5.0	33	273	24.5
550	30	5,088	-4.7		223	2.9	30	4,874	-16.7		277	27.2	30	4,782	-19.5		303	25.6	30	4,997	-10.6		270	30.3	30	5,027	-9.4		271	30.9
500	30	5,835	-9.8		267	4.9	30	5,589	-21.1		276	29.9	30	5,491	-24.3	37	301	27.4	30	5,730	-15.5		271	32.6	30	5,765	-14.2		268	35.8
450	30	6,633	-15.6		276	8.4	30	6,352	-26.4		273	35.6	30	6,247	-29.6	39	302	32.4	30	6,510	-21.0		269	34.0	30	6,548	-19.2		267	40.2
400	30	7,518	-22.1		277	10.7	30	7,201	-32.0		270	36.9	30	7,083	-35.5		302	35.0	30	7,375	-27.6		266	34.2	30	7,422	-25.8		267	46.4
350	30	8,486	-29.3		279	16.1	30	8,132	-38.4		269	39.8	30	8,000	-42.1		302	36.3	30	8,322	-34.6		265	33.2	30	8,376	-32.8		268	46.8
300	30	9,567	-38.0		276	25.6	30	9,176	-45.3		267	44.1	30	9,029	-48.5		300	38.9	30	9,382	-42.8		265	36.5	29	10,441	-40.8		270	55.2
250	30	10,798	-47.3		279	31.9	30	10,375	-51.6		271	45.3	30	10,213	-54.0		297	36.9	30	10,589	-51.6		267	46.8	29	10,660	-49.3		269	66.8
200	30	12,241	-57.0		282	48.8	30	11,807	-56.3		269	47.0	29	11,634	-54.5		287	37.5	30	12,009	-58.8		266	56.3	29	12,095	-57.2		267	78.5
175	30	13,077	-61.6		278	51.5	30	12,656	-55.7		275	45.7	29	12,493	-52.5		291	34.4	30	12,849	-58.8		268	55.8	29	12,934	-59.5		267	73.3
150	30	14,021	-65.9		277	48.2	30	13,638	-55.8		273	41.8	29	13,492	-51.9		292	32.4	30	13,815	-60.1		269	52.7	27	13,893	-60.8		269	67.8
125	29	15,115	-69.5		274	36.5	29	14,788	-56.9		274	36.1	29	14,673	-52.1		293	28.8	30	14,948	-61.8		272	47.6	27	15,019	-63.5		270	57.7
100	29	16,435	-72.4		260	22.3	28	16,190	-58.2		273	29.3	29	16,116	-53.0		288	22.0	30	16,323	-64.4		274	31.9	27	16,381	-66.1		270	43.7
80	29	17,749	-71.1		245	13.8	28	17,594	-58.7		276	21.4	29	17,552	-53.6		294	17.5	30	17,685	-64.0		277	19.8	27	17,731	-65.3		277	22.7
70	29	18,543	-68.7		226	8.2	28	18,442	-57.8		274	18.8	29	18,414	-53.6		293	14.2	30	18,509	-62.7		282	14.0	27	18,556	-63.6		285	11.3
60	28	19,470	-66.4		143	4.7	28	19,409	-57.2		273	15.7	29	19,404	-53.6		296	13.0	30	19,458	-60.9		279	9.3	27	19,497	-61.2		287	3.9
50	28	20,580	-63.9		108	6.6	28	20,567	-55.7		277	10.7	29	20,578	-53.3		299	12.8	29	20,600	-57.6		305	3.9	27	20,636	-58.1		11	2.1
40	27	21,965	-58.5		89	11.7	28	21,995	-54.3		276	9.5	29	22,018	-52.9		301	9.5	29	22,017	-55.3		327	2.1	27	22,054	-54.4		67	4.0
30	24	23,799	-53.4		92	14.8	27	23,839	-53.7		273	9.7	29	23,878	-52.2		301	5.6	29	23,862	-52.7		4	1.4	25	23,909	-51.5		75	8.0
25	23	24,981	-50.3		93	13.6	27	25,015	-52.7		272	10.7	28	25,066	-52.1		317	5.1	29	25,045	-50.7		289	3.7	25	25,098	-49.1		79	9.3
20	23	26,446	-47.8		90	14.6	26	26,462	-50.9		274	12.0	28	26,513	-51.3		328	3.1	29	26,505	-48.2		270	9.1	24	26,569	-46.2		61	3.9
15	23	28,356	-45.2		89	18.7	19	28,344	-47.9		286	15.0	28	28,389	-49.7		289	4.5	16	28,398	-44.1				24	28,499	-41.8		275	2.9
10	21	31,089	-41.3		94	22.0	5	31,080	-43.0				23	31,048	-46.6		299	9.5							20	31,259	-36.9		269	8.2
7	20	33,537	-38.1		85	20.0							14	33,431	-42.4										15	33,729	-33.8			
5	13	35,874	-34.3		96	21.0																								

	KING SALMON, ALASKA (1008 MB.)						KOROR, CAROLINE IS. (1006 MB.)						KOTZEBUE, ALASKA (1015 MB.)						KWAJALEIN, MARSHALL IS. (1010 MB.)						LAKE CHARLES, LA. (1017 MB.)					
SURFACE	30	15	-2.3	84	18	3.9	30	30	26.2	90	30	2.1	30	5	-12.8	78	340	1.7	30	4	27.1	81	80	13.0	30	5	14.7	92	104	2.7
1,000	30	78			338	6.4	30	82	25.8	88	28	2.7	30	117	-9.9	75	341	2.5	30	94	26.5	80	80	13.0	30	152	16.2	79	128	4.7
950	30	485	-2.7	66	10	9.1	30	525	23.2	86	43	6.4	30	514	-9.2	70	346	2.5	30	540	23.1	83	82	15.7	30	587	14.6	71	175	8.0
900	30	913	-4.9	65	2	8.0	30	1,005	20.4	84	39	5.1	30	931	-9.9	66	332	2.7	30	1,017	20.3	77	85	15.9	30	1,045	13.4	59	202	8.2
850	30	1,361	-6.7	60	352	7.4	30	1,499	17.8	79	18	3.3	30	1,371	-11.2	63	304	2.1	30	1,510	17.5	75	87	13.8	30	1,525	11.3	52	230	9.1
800	30	1,833	-8.8	56	355	8.0	30	2,016	15.3	75	29	3.1	30	1,834	-13.1	62	288	3.3	30	2,027	15.3	63	89	10.9	30	2,030	8.7	49	248	12.0
750	30	2,331	-11.2	50	355	7.8	30	2,563	12.5	70	36	4.1	30	2,325	-14.8	59	306	4.1	30	2,569	12.8	58	85	7.8	30	2,565	6.3	37	257	13.8
700	30	2,857	-14.2	49	355	7.6	30	3,140	9.7	59	33	5.1	30	2,844	-17.3	58	294	6.4	30	3,151	9.8	52	75	4.1	30	3,125	3.3	35	265	16.9
650	30	3,412	-17.0	46	342	8.9	30	3,750	6.6	56	36	5.4	30	3,393	-20.6	55	291	8.5	30	3,757	6.4	50	62	1.9	30	3,723	-.3	32	266	19.8
600	30	4,013	-20.5	45	339	10.7	30	4,407	3.0	53	50	6.8	30	3,984	-23.9	54	289	11.5	30	4,416	3.0	44	37	1.2	30	4,359	-4.6	30	268	23.5
550	30	4,649	-24.3	42	337	11.9	30	5,103	-.9	47	52	9.1	30	4,608	-28.0	50	287	13.2	30	5,112	-.8	40		.0	30	5,034	-9.0		266	27.0
500	30	5,341	-28.6		340	15.0	30	5,864	-5.2	47	65	11.3	30	5,292	-32.4	47	286	15.9	30	5,873	-4.9	35	345	.8	30	5,771	-14.2		264	28.2
450	30	6,084	-33.8		345	17.1	30	6,682	-9.9	42	69	12.0	30	6,020	-37.4		284	13.2	30	6,689	-10.0	38	349	1.4	30	6,559	-19.9		267	28.8
400	30	6,905	-39.5		339	19.6	30	7,585	-15.8		70	11.9	30	6,831	-42.6		280	15.9	30	7,594	-15.6	35	264	4.5	30	7,426	-26.3		265	33.0
350	30	7,808	-45.0		338	21.4	30	8,579	-22.2		72	10.1	30	7,722	-47.7		278	18.5	30	8,589	-22.4	29	260	7.8	29	8,377	-33.4		268	37.9
300	30	8,827	-49.7		336	23.1	30	9,693	-30.6		86	9.5	30	8,730	-51.7		275	22.3	30	9,703	-30.7	24	263	12.2	29	9,441	-41.4		270	41.6
250	30	10,016	-50.7		327	25.3	29	10,961	-40.9		105	10.7	30	9,909	-52.1		277	24.3	30	10,971	-41.1		257	14.0	29	10,655	-50.2		267	51.5
200	30	11,474	-49.5		328	19.0	28	12,437	-53.6		123	16.1	30	11,358	-50.5		279	24.5	30	12,448	-53.4		259	16.9	28	12,081	-57.5		264	59.8
175	29	12,352	-48.6		321	18.8	28	13,281	-60.8		118	19.0	30	12,230	-49.7		277	25.8	30	13,294	-60.2		257	18.8	27	12,919	-58.9		265	59.1
150	29	13,366	-48.8		312	16.9	28	14,222	-68.7		105	19.8	30	13,238	-49.8		274	26.2	30	14,239	-67.3		269	18.3	27	13,883	-60.3		264	55.0
125	29	14,561	-49.8		303	15.3	28	15,291	-76.6		100	20.4	30	14,428	-50.5		272	27.2	28	15,321	-74.4		285	15.3	27	15,011	-63.5		268	47.6
100	29	16,019	-50.5		300	11.9	28	16,553	-82.2		96	14.8	30	15,882	-50.5		271	27.2	25	16,599	-80.0		310	7.0	26	16,375	-65.9		269	32.3
80	28	17,470	-50.8		295	10.5	23	17,807	-79.4		103	3.7	30	17,336	-50.9		267	30.3	22	17,872	-77.5		303	3.7	25	17,729	-66.8		270	18.5
70	28	18,341	-51.1		291	9.9	22	18,572	-74.4		273	6.2	30	18,207	-51.2		272	29.9	19	18,650	-72.4		281	6.4	25	18,550	-64.9		274	9.9
60	27	19,342	-51.5		283	9.1	22	19,481	-69.0		280	14.2	30	19,204	-51.5		269	28.2	19	19,567	-67.4		275	10.5	25	19,485	-62.1		286	3.9
50	27	20,526	-51.8		281	7.4	21	20,581	-65.7		271	16.3	30	20,386	-52.1		266	30.5	19	20,673	-64.2		273	8.2	25	20,622	-58.6		307	.8
40	26	21,970	-52.4		279	7.2	20	21,954	-61.2		286	9.3	30	21,829	-52.5		269	29.5	19	22,054	-59.6		298	.8	24	22,036	-55.7		42	4.9
30	26	23,829	-53.2		287	6.2	20	23,765	-55.6		94	13.6	30	23,684	-53.3		267	29.5	19	23,867	-54.9		90	17.1	24	23,886	-51.8		65	6.0
25	25	25,008	-53.0		300	5.2	18	24,934	-53.0		90	29.3	28	24,872	-53.4		267	25.6	19	25,048	-52.5		87	29.5	24	25,074	-49.7		77	4.1
20	23	26,456	-53.1		307	3.3	18	26,383	-49.5		86	45.5	23	26,295	-53.6		265	27.4	18	26,500	-49.1		87	42.9	23	26,544	-46.7		278	2.9
15	6	28,313	-51.9				17	28,287	-45.2		86	56.5	20	28,182	-53.6		262	23.5	18	28,414	-43.9		91	55.0	9	28,458	-43.2			
10							9	31,003	-39.6										17	31,174	-38.8		93	59.7						
7																			14	33,594	-35.1									
5																			8	35,951	-30.7									

See reference note at end of table

RAWINSONDE DATA

Average monthly values

APRIL 1962

LANDER, WYO.
(829 MB.)

Standard pressure surface (mb.)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind Direction	Wind Speed
SURFACE	30	1,696	3.4	58	246	3.9
1,000	30	142				
950	30	566				
900	30	1,014				
850	30	1,488				
800	30	1,983	4.9	45	253	3.1
750	30	2,503	2.1	42	274	4.7
700	30	3,060	- 1.5	42	292	9.3
650	30	3,639	- 5.7	38	296	15.5
600	30	4,269	-10.0	36	288	17.5
550	30	4,924	-14.5	34	290	18.5
500	30	5,650	-19.5	33	290	21.8
450	30	6,419	-25.0		290	24.7
400	30	7,271	-31.5		290	27.0
350	30	8,202	-38.6		298	30.9
300	30	9,243	-46.5		297	36.3
250	30	10,432	-54.5		295	43.1
200	30	11,842	-59.1		293	41.8
175	30	12,682	-57.5		292	40.8
150	30	13,661	-55.5		289	35.2
125	30	14,819	-57.1		285	28.6
100	30	16,228	-58.1		290	24.3
80	30	17,630	-59.0		289	16.7
70	30	18,469	-58.6		295	14.0
60	30	19,437	-58.1		299	9.3
50	30	20,589	-57.0		312	5.6
40	30	22,012	-56.0		327	4.5
30	25	23,852	-54.4		354	4.9
25	19	25,040	-53.1		354	4.3
20	9	26,512	-52.1			
15						
10						
7						
5						

LAS VEGAS, NEV.
(938 MB.)

Standard pressure surface (mb.)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind Direction	Wind Speed
SURFACE	30	660	15.8	22	244	3.3
1,000	30	103				
950	30	545				
900	30	1,008	18.4	19	311	4.3
850	30	1,495	15.4	21	325	6.6
800	30	2,005	11.5	24	316	5.6
750	30	2,538	7.4	26	296	4.5
700	30	3,104	3.0	27	294	4.9
650	30	3,694	- .8	29	288	7.2
600	30	4,334	- 4.5		286	12.2
550	30	5,005	- 9.3		285	15.7
500	30	5,745	-14.5		288	21.0
450	30	6,524	-20.6		282	22.7
400	30	7,396	-27.6		286	25.3
350	30	8,342	-35.0		289	29.1
300	30	9,398	-43.3		291	34.6
250	30	10,601	-52.5		288	42.9
200	30	12,016	-59.5		290	46.0
175	30	12,850	-60.1		288	46.8
150	30	13,812	-60.1		291	44.7
125	29	14,945	-62.0		291	36.1
100	29	16,318	-63.9		285	26.2
80	28	17,678	-64.2		294	15.7
70	27	18,500	-63.7		304	9.9
60	27	19,447	-61.6		317	6.8
50	26	20,585	-59.9		18	2.1
40	25	21,989	-57.2		302	.8
30	24	23,824	-54.2		293	1.4
25	21	25,000	-50.3		273	5.6
20	11	26,450	-50.3			
15						
10						
7						
5						

LIHUE, HAWAII
(1014 MB.)

Standard pressure surface (mb.)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind Direction	Wind Speed
SURFACE	30	36	22.2	80	51	6.4
1,000	30	156	21.5	81	63	7.0
950	30	600	18.2	82	86	8.9
900	30	1,062	14.9	83	93	9.7
850	30	1,544	11.9	80	102	9.1
800	30	2,051	10.1	64	118	6.8
750	30	2,583	8.1	45	150	4.7
700	30	3,153	5.6	37	155	3.5
650	30	3,752	2.5		181	2.9
600	30	4,399	- 1.2		227	3.5
550	30	5,080	- 5.6		247	5.8
500	30	5,829	-10.7		248	8.4
450	30	6,627	-16.1		256	10.9
400	30	7,509	-22.7		257	12.6
350	30	8,474	-30.1		266	16.1
300	30	9,553	-38.7		269	20.2
250	30	10,780	-48.2		277	27.6
200	30	12,216	-58.2		281	43.9
175	29	13,050	-62.6		276	47.4
150	29	13,992	-66.5		276	42.7
125	28	15,089	-69.2		274	34.4
100	28	16,412	-72.2		267	24.1
80	28	17,731	-70.4		253	13.6
70	28	18,527	-68.3		239	7.0
60	28	19,457	-65.2		156	3.7
50	28	20,573	-63.1		108	7.2
40	27	21,965	-57.7		97	11.3
30	27	23,800	-53.3		91	12.4
25	27	24,981	-50.7		89	11.9
20	26	26,443	-47.9		90	11.3
15	21	28,354	-45.0		87	12.4
10	17	31,081	-41.2		80	14.4
7	14	33,536	-37.9		91	15.2
5	9	35,849	-34.8			

LITTLE ROCK, ARK.
(1009 MB.)

Standard pressure surface (mb.)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind Direction	Wind Speed
SURFACE	30	79	10.6	81	184	0.6
1,000	30	152	11.6	69	254	.6
950	30	583	11.7	58	226	4.5
900	30	1,034	9.6	59	243	8.2
850	30	1,507	7.6	57	256	10.3
800	30	2,005	4.8	55	265	11.9
750	30	2,527	2.1	49	280	14.2
700	29	3,087	- .5	43	287	17.5
650	29	3,669	- 3.8	44	290	18.7
600	29	4,304	- 7.9	42	291	22.2
550	29	4,967	-12.1	43	293	27.6
500	29	5,699	-17.0	38	290	27.6
450	29	6,474	-22.4		285	27.0
400	29	7,338	-28.5		282	32.3
350	29	8,281	-35.7		283	32.4
300	29	9,334	-44.0		281	36.1
250	29	10,535	-52.9		278	40.0
200	29	11,949	-59.2		281	44.5
175	29	12,786	-58.5		280	44.9
150	29	13,756	-58.5		282	42.0
125	29	14,898	-59.9		289	29.5
100	27	16,291	-62.3		283	28.4
80	26	17,663	-62.4		285	18.8
70	26	18,496	-61.3		286	15.9
60	26	19,451	-59.6		284	12.2
50	25	20,593	-57.5		289	8.0
40	23	22,008	-55.1		295	3.5
30	22	23,850	-53.3		272	4.9
25	22	25,029	-51.6		294	5.6
20	20	26,479	-48.9		288	8.5
15	16	28,388	-45.6			
10	9	31,088	-41.4			
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McGRATH, ALASKA
(1000 MB.)

Standard pressure surface (mb.)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind Direction	Wind Speed
SURFACE	30	103	- 5.0	67	285	2.5
1,000	30	99			280	4.7
950	30	503	- 4.9	59	349	4.5
900	30	928	- 6.0	63	356	2.7
850	30	1,373	- 8.2	64	359	3.5
800	30	1,842	-10.6	63	343	4.1
750	30	2,333	-13.1	55	324	5.1
700	30	2,859	-16.0	51	317	5.2
650	30	3,411	-19.2	46	290	4.5
600	30	4,005	-22.8	44	265	6.6
550	30	4,636	-26.6	41	304	8.2
500	30	5,321	-30.9	37	314	8.9
450	30	6,058	-35.8		307	11.7
400	30	6,872	-41.2		300	12.6
350	30	7,768	-46.5		295	14.6
300	30	8,780	-51.3		299	17.5
250	30	9,961	-52.0		304	20.2
200	30	11,415	-49.3		300	18.1
175	30	12,292	-48.6		291	14.4
150	28	13,307	-48.2		289	14.8
125	28	14,505	-49.1		286	14.2
100	28	15,965	-50.1		284	14.0
80	28	17,421	-50.5		280	13.2
70	28	18,294	-50.6		279	13.2
60	28	19,294	-51.1		278	12.2
50	28	20,477	-51.7		276	12.0
40	28	21,924	-51.8		271	13.0
30	28	23,785	-52.7		276	11.9
25	24	24,975	-52.9		276	12.0
20	20	26,433	-52.8		288	7.4
15	9	28,347	-52.9			
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MAJURO, MARSHALL IS.
(1010 MB.)

Standard pressure surface (mb.)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind Direction	Wind Speed
SURFACE	30	3	27.1	84	69	10.3
1,000	30	93	26.4	83	71	12.2
950	30	543	23.5	82	77	16.9
900	30	1,017	20.7	78	86	17.3
850	30	1,511	18.1	72	91	14.2
800	30	2,029	15.5	68	86	13.6
750	30	2,574	12.8	63	84	11.3
700	30	3,153	9.8	58	79	8.0
650	30	3,762	6.2	59	72	6.4
600	30	4,417	2.6	57	81	5.1
550	30	5,108	- 1.0	51	69	2.1
500	30	5,872	- 5.3	43		.0
450	30	6,689	-10.2		344	2.1
400	30	7,592	-15.4		275	3.5
350	30	8,587	-22.2		250	7.6
300	30	9,701	-30.6		259	10.7
250	29	10,965	-41.3		246	15.2
200	29	12,440	-53.6		245	20.2
175	28	13,291	-60.4		247	22.0
150	27	14,234	-68.1		258	20.8
125	27	15,308	-75.8		282	20.2
100	27	16,575	-81.6		301	9.9
80	26	17,831	-78.3		280	8.5
70	25	18,604	-72.7		273	12.8
60	25	19,517	-67.8		264	17.3
50	24	20,626	-64.7		267	16.3
40	23	22,003	-60.3		274	7.4
30	23	23,816	-56.1		85	12.4
25	23	24,983	-53.4		85	29.5
20	23	26,431	-49.5		87	56.0
15	22	28,339	-44.7		90	58.1
10	20	31,089	-39.8		89	63.5
7	15	33,521	-37.1		90	69.9
5	10	35,845	-34.7			

MEDFORD, OREG.
(973 MB.)

Standard pressure surface (mb.)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind Direction	Wind Speed
SURFACE	30	401	5.5	81	254	0.6
1,000	30	177				
950	30	601	8.3	68	295	2.9
900	30	1,047	7.1	65	266	2.9
850	30	1,515	5.0	63	232	3.9
800	30	2,008	2.4	60	252	7.4
750	30	2,526	- .1	48	263	11.1
700	30	3,078	- 2.3	40	265	15.5
650	30	3,662	- 5.3	37	267	17.5
600	30	4,287	- 9.0		268	21.6
550	30	4,951	-13.5		269	24.7
500	30	5,675	-18.5		273	27.4
450	30	6,447	-24.2		276	31.9
400	30	7,302	-30.3		275	33.6
350	30	8,239	-37.4		276	36.1
300	30	9,285	-45.8		273	38.5
250	30	10,479	-53.8		276	39.1
200	30	11,891	-60.1		267	38.9
175	30	12,725	-59.6		266	38.1
150	28	13,692	-57.9		264	37.1
125	28	14,842	-58.5		259	30.5
100	28	16,240	-59.6		258	24.1
80	28	17,635	-59.9		269	14.8
70	28	18,475	-59.1		276	10.1
60	28	19,449	-58.9		273	6.6
50	28	20,585	-58.2		301	4.5
40	28	21,994	-57.2		335	2.3
30	28	23,820	-56.0			.0
25	28	24,982	-55.1		304	1.2
20	27	26,410	-54.1		295	3.7
15	24	28,260	-52.1		281	9.1
10	22	30,913	-48.1		269	16.5
7	21	33,297	-43.5		275	25.1
5	18	35,589	-40.0		275	30.7

MIAMI, FLA.
(1018 MB.)

Standard pressure surface (mb.)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind Direction	Wind Speed
SURFACE	30	4	19.6	79	81	2.3
1,000	30	159	20.3	73	96	4.7
950	30	600	17.3	75	115	8.2
900	30	1,062	14.4	71	117	6.0
850	30	1,543	11.5	65	105	2.7
800	30	2,050	10.4	43	272	2.1
750	30	2,586	8.1	34	274	4.7
700	30	3,153	5.4		270	7.4
650	30	3,750	2.0		261	11.3
600	30	4,397	- 2.0		267	16.3
550	30	5,079	- 6.3		267	21.4
500	30	5,825	-11.2	35	261	25.6
450	30	6,622	-16.5	37	264	32.1
400	30	7,504	-22.6	42	265	38.5
350	30	8,470	-29.8	43	263	43.1
300	30	9,551	-37.8	37	262	52.3
250	30	10,783	-47.0		260	64.5
200	30	12,228	-56.7		261	73.6
175	30	13,066	-60.9		262	72.1
150	30	14,015	-65.0		262	63.9
125	30	15,118	-68.2		263	54.8
100	30	16,445	-71.9		265	38.9
80	29	17,753	-71.8		265	24.7
70	29	18,550	-69.5		267	12.0
60	29	19,472	-65.4		245	2.5
50	28	20,594	-61.0		86	2.5
40	28	21,997	-56.4		81	9.3
30	28	23,842	-51.7		79	11.7
25	28	25,030	-49.4		81	11.9
20	28	26,502	-46.0		81	8.5
15	27	28,437	-41.3		84	6.8
10	24	31,213	-36.9		141	1.7
7	19	33,707	-32.8		293	5.1
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MIDLAND, TEXAS
(915 MB.)

Standard pressure surface (mb.)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind Direction	Wind Speed
SURFACE	30	874	12.0	66	139	2.5
1,000	30	120				
950	30	553				
900	30	1,012	12.8	60	165	5.2
850	30	1,493	12.9	51	214	10.1
800	30	2,002	12.2	31	253	12.2
750	30	2,537	8.8	29	280	12.6
700	30	3,106	4.4	31	285	13.6
650	30	3,700	- .1	32	287	15.3
600	30	4,339	- 4.9	32	282	16.7
550	30	5,013	-10.1	34	276	19.6
500	30	5,745	-15.5		277	22.2
450	30	6,526	-21.3		277	27.2
400	30	7,389	-27.8		279	30.9
350	30	8,333	-35.4		278	33.2
300	30	9,388	-43.7		275	35.8
250	30	10,590	-52.2		275	42.4
200	30	12,007	-59.0		277	50.1
175	29	12,845	-58.8		275	48.6
150	29	13,811	-60.2		276	42.6
125	29	14,941	-62.7		277	38.3
100	29	16,307	-65.5		281	24.5
80	28	17,658	-66.3		281	13.6
70	28	18,478	-64.5		267	8.7
60	27	19,417	-62.1		266	5.6
50	26	20,549	-59.7		256	1.9
40	26	21,954	-56.5		262	1.7
30	26	23,794	-52.9		285	2.5
25	24	24,971	-50.9		284	2.9
20	24	26,433	-47.4		263	4.7
15	21	28,343	-44.3		250	5.4
10	18	31,081	-40.3		261	18.3
7	13	33,551	-36.8		265	22.0
5	11	35,891	-34.2			

MONTGOMERY, ALA.
(1013 MB.)

Standard pressure surface (mb.)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind Direction	Wind Speed
SURFACE	30	61	11.5	84		0.0
1,000	30	169	13.2	70	73	.6
950	30	597	12.8	60	276	2.1
900	30	1,053	10.5	58	270	8.5
850	30	1,528	8.4	56	271	12.2
800	30	2,027	6.0	49	273	14.8
750	30	2,552	3.3	44	278	17.3
700	30	3,110	.7	38	278	20.6
650	30	3,699	- 2.2		275	25.5
600	30	4,334	- 5.8		271	28.4
550	30	5,003	-10.2		273	31.9
500	30	5,738	-15.1		272	36.3
450	30	6,520	-20.6		269	38.5
400	30	7,387	-27.1		270	42.2
350	30	8,336	-34.3		268	43.5
300	30	9,396	-42.6		269	48.6
250	30	10,604	-51.2		267	57.3
200	29	12,023	-58.7		264	64.7
175	29	12,860	-59.4		263	66.8
150	29	13,823	-60.1		264	62.6
125	28	14,957	-61.8		264	50.5
100	28	16,328	-64.7		267	39.4
80	28	17,693	-64.2		267	24.9
70	28	18,522	-62.4		268	19.0
60	28	19,469	-60.1		264	10.7
50	27	20,612	-58.0		264	4.5
40	27	22,029	-55.1		215	1.0
30	27	23,877	-52.5		309	3.9
25	27	25,060	-50.8		294	2.5
20	25	26,523	-47.7		275	6.8
15	19	28,431	-44.0		267	14.2
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NANTUCKET, MASS.
(1014 MB.)

Standard pressure surface (mb.)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind Direction	Wind Speed
SURFACE	30	14	6.3	80	252	6.2
1,000	30	128	6.5	74	260	9.1
950	30	549	7.3	58	266	17.7
900	30	994	5.0	56	267	19.6
850	30	1,459	2.3	52	273	21.0
800	30	1,946	- .5	47	273	21.0
750	30	2,457	- 3.4	48	271	24.3
700	30	3,002	- 6.5	42	269	27.4
650	30	3,573	- 9.5	42	274	27.2
600	30	4,193	-13.1	39	272	28.2
550	30	4,843	-17.0	37	267	30.3
500	30	5,560	-21.5		266	27.6
450	30	6,319	-26.6		267	30.3
400	30	7,169	-32.5		267	35.2
350	30	8,099	-38.5		262	38.7
300	30	9,144	-45.2		261	39.1
250	30	10,346	-50.8		261	39.6
200	30	11,785	-55.2		265	43.9
175	30	12,635	-56.1		264	45.3
150	30	13,618	-54.9		266	38.1
125	30	14,785	-54.9		270	33.4
100	28	16,210	-56.4		269	27.4
80	27	17,620	-55.9		267	20.2
70	27	18,476	-55.5		266	18.1
60	27	19,455	-54.7		267	12.8
50	27	20,623	-54.2		256	8.7
40	27	22,058	-53.2		239	8.0
30	26	23,915	-52.5		262	10.5
25	25	25,091	-52.5		267	9.7
20	23	26,535	-51.3		262	8.2
15	20	28,415	-48.7		271	14.0
10	16	31,118	-42.2		275	25.6
7	14	33,570	-36.4			
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NASHVILLE, TENN.
(998 MB.)

Standard pressure surface (mb.)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind Direction	Wind Speed
SURFACE	30	177	8.9	81	241	1.7
1,000	30	157			211	.8
950	30	581	9.2	60	264	5.6
900	30	1,031	6.8	62	270	8.9
850	30	1,499	4.3	60	271	12.0
800	30	1,990	2.0	56	273	16.3
750	30	2,506	- .8	53	276	21.8
700	30	3,058	- 3.2	48	277	26.4
650	30	3,637	- 6.4	46	277	27.8
600	30	4,263	-10.2	45	279	29.0
550	30	4,921	-14.3		281	34.0
500	30	5,646	-19.0		279	40.8
450	30	6,416	-24.3		277	43.9
400	30	7,273	-29.8		271	45.7
350	30	8,212	-36.6		276	46.2
300	30	9,263	-44.5		270	49.5
250	30	10,462	-52.5		269	54.8
200	30	11,883	-58.6		265	57.3
175	30	12,722	-58.1		260	57.7
150	30	13,695	-57.6		264	52.5
125	30	14,843	-58.9		265	45.9
100	30	16,235	-61.6		266	33.2
80	30	17,620	-60.9		261	24.7
70	30	18,457	-60.1		264	19.4
60	30	19,416	-59.2		269	12.4
50	28	20,560	-56.9		273	11.5
40	27	21,975	-55.6		264	8.2
30	27	23,816	-53.6		260	7.2
25	27	24,992	-52.2		269	9.1
20	25	26,445	-50.3		274	11.3
15	25	28,337	-47.1		269	20.8
10	24	31,051	-42.1		268	36.3
7	18	33,488	-38.4		262	46.0
5	9	35,828	-35.2			

N. Y. INT. AP, IDLEWILD
(1017 MB.)

Standard pressure surface (mb.)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind Direction	Wind Speed
SURFACE	30	5	7.3	69	274	4.5
1,000	30	140	7.6	63	268	7.2
950	30	565	7.3	53	267	13.0
900	30	1,006	4.8	55	271	16.5
850	30	1,470	1.9	54	268	18.1
800	30	1,956	- 1.1	55	271	19.4
750	30	2,470	- 3.9	52	268	20.8
700	30	3,011	- 6.7	52	268	22.5
650	30	3,586	-10.0	49	272	26.0
600	30	4,199	-13.5	46	267	29.1
550	30	4,852	-17.5	44	263	32.3
500	30	5,564	-21.9		265	35.9
450	30	6,326	-27.0		266	38.9
400	30	7,172	-32.9		265	41.6
350	30	8,098	-39.5		271	40.4
300	30	9,137	-46.4		266	42.9
250	30	10,332	-51.7		265	53.2
200	30	11,765	-55.5		267	52.8
175	30	12,616	-55.6		269	48.4
150	30	13,598	-55.2		268	41.4
125	30	14,762	-55.6		270	35.6
100	29	16,179	-57.0		270	29.5
80	29	17,592	-56.6		269	24.1
70	29	18,450	-56.5		272	19.6
60	28	19,419	-55.9		272	15.7
50	28	20,582	-55.0		269	10.9
40	26	22,011	-54.1		260	8.4
30	26	23,860	-53.6		254	8.9
25	25	25,032	-53.0		262	8.5
20	24	26,478	-51.6		273	10.3
15	17	28,362	-49.2		274	15.5
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NOME, ALASKA
(1015 MB.)

Standard pressure surface (mb.)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind Direction	Wind Speed
SURFACE	29	7	- 9.5	79	353	2.9
1,000	29	124	- 7.8	72	324	3.3
950	29	524	- 8.1	67	317	5.4
900	29	943	- 8.4	62	315	7.2
850	29	1,386	- 9.1	58	313	9.5
800	29	1,853	-10.9	56	298	10.5
750	29	2,348	-13.0	53	304	11.3
700	29	2,871	-15.6	52	312	13.6
650	29	3,425	-18.8	46	310	15.0
600	29	4,019	-22.4	41	308	18.1
550	29	4,647	-26.3	41	305	21.2
500	29	5,336	-30.7	41	304	24.3
450	29	6,070	-35.4		304	27.2
400	29	6,888	-40.9		303	29.0
350	29	7,786	-46.1		303	32.4
300	29	8,801	-50.4		308	35.0
250	29	9,985	-51.5		305	35.2
200	29	11,438	-50.3		307	29.9
175	29	12,311	-49.4		303	27.0
150	29	13,321	-49.5		300	25.6
125	29	14,514	-50.0		292	24.5
100	29	15,969	-50.8		284	23.7
80	29	17,423	-51.0		280	22.9
70	29	18,294	-51.3		277	21.6
60	29	19,294	-51.5		273	20.6
50	28	20,481	-51.9		273	21.8
40	28	21,928	-52.0		273	19.6
30	28	23,789	-53.1		271	17.5
25	27	24,972	-53.3		276	14.0
20	25	26,427	-52.8		274	16.9
15	19	28,319	-51.9		305	6.8
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NORFOLK, VA.
(1017 MB.)

Standard pressure surface (mb.)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind Direction	Wind Speed
SURFACE	30	9	10.1	79	239	3.5
1,000	30	151	11.5	68	243	6.4
950	30	578	10.2	60	257	12.0
900	30	1,028	7.4	60	263	13.6
850	30	1,497	4.3	59	258	13.0
800	30	1,988	1.4	52	257	16.7
750	30	2,503	- 1.5	52	254	21.2
700	30	3,053	- 4.1	53	257	23.1
650	30	3,631	- 7.2	48	253	28.8
600	30	4,255	-10.5	42	257	32.8
550	30	4,915	-14.7		261	36.3
500	30	5,634	-19.4		261	40.8
450	30	6,403	-24.6		262	44.5
400	30	7,258	-30.6		261	49.4
350	30	8,193	-37.2		262	51.3
300	30	9,242	-44.3		261	52.8
250	30	10,444	-51.5		262	59.5
200	30	11,874	-56.4		269	60.4
175	30	12,721	-56.9		267	56.7
150	30	13,695	-57.3		267	52.8
125	30	14,847	-57.9		270	42.0
100	30	16,246	-59.5		267	34.8
80	30	17,640	-59.7		267	24.5
70	30	18,479	-58.2		269	16.9
60	30	19,449	-57.3		266	12.6
50	30	20,606	-55.3		271	5.2
40	29	22,032	-53.7		260	1.9
30	29	23,885	-52.6		271	2.9
25	28	25,064	-51.5		288	6.0
20	25	26,522	-49.1		269	8.4
15	19	28,420	-45.0		270	16.1
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See reference note at end of table

RAWINSONDE DATA

Average monthly values

APRIL 1962

NORTH PLATTE, NEBR.
(917 MB.)

Standard pressure surface (mb)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind	
					Direction	Speed
SURFACE	29	848	3.2	73	349	1.0
1,000--	29	133				
950----	29	559				
900----	29	998	5.3	63	267	1.2
850----	29	1,466	6.1	52	270	8.4
800----	29	1,962	5.0	47	299	13.4
750----	29	2,480	1.9	46	309	15.7
700----	29	3,039	- 1.7	46	314	18.3
650----	29	3,618	- 5.8	42	308	19.2
600----	29	4,248	-10.0	44	304	22.5
550----	29	4,903	-14.7	43	296	23.5
500----	29	5,628	-19.9	40	294	24.9
450----	29	6,390	-25.4	36	291	29.3
400----	29	7,245	-31.9		291	33.0
350----	29	8,176	-39.0		287	32.8
300----	29	9,215	-47.0		286	36.3
250----	29	10,403	-54.6		279	36.1
200----	29	11,813	-58.9		284	39.6
175----	29	12,655	-57.2		286	38.9
150----	29	13,633	-56.2		289	33.4
125----	29	14,788	-57.9		286	28.2
100----	29	16,191	-59.1		292	23.5
80-----	29	17,587	-59.5		291	16.1
70-----	29	18,427	-58.7		299	12.4
60-----	29	19,392	-58.1		294	10.3
50-----	28	20,537	-57.2		301	6.2
40-----	27	21,956	-55.9		302	4.9
30-----	27	23,792	-54.5		314	5.2
25-----	27	24,961	-53.8		306	5.2
20-----	27	26,401	-51.8		284	7.8
15-----	27	28,275	-49.5		286	11.9
10-----	22	30,951	-45.0		267	24.1
7------	20	33,353	-41.2		272	35.6
5------	15	35,656	-37.2			

OAKLAND, CALIF.
(1018 MB.)

Standard pressure surface (mb)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind	
					Direction	Speed
SURFACE	30	6	10.6	79	273	2.1
1,000--	30	153	11.0	77	275	3.7
950----	30	585	11.9	59	310	6.8
900----	30	1,035	12.1	38	327	9.1
850----	30	1,512	10.6	31	324	8.2
800----	30	2,014	8.1	27	309	7.8
750----	30	2,544	5.9		297	11.3
700----	30	3,106	2.8		296	12.8
650----	30	3,696	- .7		290	15.0
600----	30	4,336	- 4.9		291	18.1
550----	30	5,007	- 9.7		288	21.4
500----	30	5,743	-15.1		284	24.9
450----	30	6,523	-20.9		284	27.0
400----	30	7,390	-27.5		284	30.1
350----	30	8,337	-34.9		282	34.0
300----	30	9,394	-43.4		282	39.4
250----	30	10,597	-52.8		284	47.2
200----	29	12,008	-60.2		285	50.5
175----	29	12,841	-60.3		284	49.5
150----	29	13,804	-60.3		281	43.9
125----	29	14,939	-61.6		280	38.5
100----	29	16,318	-62.8		281	30.1
80-----	29	17,690	-63.2		290	19.4
70-----	28	18,518	-62.6		294	14.0
60-----	28	19,466	-61.4		307	8.7
50-----	28	20,600	-60.1		345	6.8
40-----	26	22,001	-57.8		2	4.1
30-----	25	23,826	-55.5		18	2.9
25-----	24	24,990	-54.2		306	2.7
20-----	22	26,429	-52.2		271	8.5
15-----	21	28,302	-49.3		264	15.0
10-----	21	30,985	-44.7		266	27.2
7------	19	33,385	-41.9		268	36.5
5------	15	35,690	-37.6			

OKLAHOMA CITY, OKLA.
(971 MB.)

Standard pressure surface (mb)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind	
					Direction	Speed
SURFACE	30	392	10.3	79	114	2.9
1,000--	30	141				
950----	30	571	11.2	67	146	5.8
900----	30	1,023	10.8	57	192	8.4
850----	30	1,499	9.1	55	233	6.8
800----	30	1,999	6.5	58	269	8.4
750----	30	2,527	3.8	59	284	10.5
700----	30	3,084	.5	55	290	14.8
650----	30	3,668	- 3.1	53	292	18.7
600----	30	4,304	- 7.6	49	293	22.2
550----	30	4,967	-12.6	48	286	25.6
500----	30	5,697	-17.6	41	281	26.6
450----	30	6,473	-23.2	37	280	28.2
400----	30	7,329	-29.5	36	276	30.9
350----	30	8,267	-36.9		273	35.0
300----	30	9,315	-45.2		269	38.5
250----	30	10,508	-54.1		269	41.8
200----	30	11,916	-59.8		272	47.0
175----	30	12,753	-58.4		275	44.5
150----	30	13,724	-58.0		279	42.7
125----	29	14,870	-59.8		280	34.6
100----	29	16,255	-62.6		282	26.8
80-----	29	17,632	-62.5		285	20.2
70-----	29	18,467	-61.4		278	14.0
60-----	27	19,421	-60.1		283	8.0
50-----	27	20,566	-58.0		278	5.2
40-----	26	21,987	-55.8		324	2.3
30-----	23	23,831	-53.1		336	2.7
25-----	20	25,007	-51.6		291	3.3
20-----	17	26,464	-49.2		281	8.9
15-----	15	28,373	-45.4		284	16.7
10-----	8	31,102	-41.1			

OMAHA, NEBR.
(968 MB.)

Standard pressure surface (mb)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind	
					Direction	Speed
SURFACE	30	403	4.3	77	284	2.3
1,000--	30	138				
950----	30	558	6.2	64	285	4.9
900----	30	1,001	4.9	59	295	9.3
850----	30	1,466	3.8	52	288	12.8
800----	30	1,958	2.1	53	289	15.7
750----	30	2,474	- .5	49	292	17.5
700----	30	3,025	- 3.9	48	295	19.4
650----	30	3,601	- 7.5	42	299	22.5
600----	30	4,225	-11.6	40	301	24.3
550----	30	4,882	-16.0	33	299	26.0
500----	30	5,598	-20.6		299	28.2
450----	30	6,363	-26.0		298	30.3
400----	30	7,213	-32.6		296	33.2
350----	30	8,141	-39.4		297	35.4
300----	30	9,180	-46.7		294	37.1
250----	30	10,369	-54.0		290	38.5
200----	30	11,783	-57.9		286	41.2
175----	30	12,628	-56.3		286	39.4
150----	30	13,608	-55.9		285	36.3
125----	29	14,770	-56.7		288	31.1
100----	29	16,177	-58.5		286	25.3
80-----	29	17,579	-58.7		288	18.7
70-----	29	18,422	-58.1		289	14.8
60-----	29	19,390	-57.7		293	10.9
50-----	29	20,543	-56.6		306	8.0
40-----	29	21,962	-55.6		311	5.6
30-----	28	23,803	-54.2		310	5.4
25-----	28	24,976	-53.1		309	5.6
20-----	24	26,422	-51.7		280	6.2
15-----	9	28,298	-50.0			

PEORIA, ILL.
(994 MB.)

Standard pressure surface (mb)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind	
					Direction	Speed
SURFACE	30	200	4.8	75	194	1.4
1,000--	30	147				
950----	30	570	6.6	61	250	7.6
900----	30	1,010	4.7	61	266	13.6
850----	30	1,474	2.2	58	277	15.9
800----	30	1,962	- .4	53	284	16.1
750----	30	2,473	- 3.1	49	290	16.3
700----	30	3,020	- 6.0	48	294	18.3
650----	30	3,593	- 9.1	46	292	20.4
600----	30	4,213	-12.7	42	291	22.2
550----	30	4,867	-17.0	39	288	24.9
500----	30	5,580	-22.0		286	27.4
450----	30	6,339	-27.4		288	32.3
400----	30	7,185	-32.9		289	36.3
350----	30	8,112	-39.3		288	40.0
300----	30	9,152	-46.0		284	44.5
250----	30	10,346	-52.5		282	47.0
200----	30	11,773	-55.7		282	46.0
175----	30	12,624	-55.3		282	41.4
150----	30	13,609	-54.5		284	38.1
125----	30	14,772	-56.0		280	32.4
100----	30	16,185	-57.4		282	27.4
80-----	30	17,594	-57.8		286	18.5
70-----	30	18,440	-57.4		283	14.2
60-----	29	19,417	-57.2		280	11.9
50-----	29	20,574	-55.8		287	9.1
40-----	29	21,998	-55.1		283	7.8
30-----	28	23,844	-53.5		292	7.2
25-----	26	25,024	-52.4		288	7.8
20-----	26	26,472	-51.0		280	10.9
15-----	24	28,358	-48.3		274	17.3
10-----	23	31,065	-43.4		272	29.7
7------	21	33,495	-39.7		269	38.7
5------	12	35,767	-34.9			

PITTSBURGH, PA.
(976 MB.)

Standard pressure surface (mb)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind	
					Direction	Speed
SURFACE	30	353	4.6	73	246	3.3
1,000--	30	149				
950----	30	571	6.3	63	253	7.8
900----	30	1,011	3.9	64	271	13.4
850----	30	1,473	.9	65	276	15.9
800----	30	1,958	- 1.7	63	277	17.7
750----	30	2,469	- 4.4	60	275	19.0
700----	30	3,010	- 7.6	59	268	19.8
650----	30	3,581	-10.7	53	268	23.1
600----	30	4,195	-14.3	45	268	25.8
550----	30	4,846	-18.4		271	27.6
500----	30	5,555	-23.1	38	272	31.5
450----	30	6,315	-28.2		270	36.7
400----	30	7,154	-34.3		266	43.5
350----	30	8,077	-39.9		261	45.5
300----	30	9,117	-46.2		258	47.6
250----	30	10,313	-51.9		261	49.9
200----	30	11,744	-55.4		269	47.0
175----	30	12,596	-55.2		265	45.3
150----	30	13,581	-55.0		271	41.6
125----	30	14,744	-55.9		276	37.3
100----	30	16,160	-57.1		272	27.2
80-----	30	17,569	-57.5		268	20.4
70-----	30	18,414	-57.5		271	17.9
60-----	30	19,388	-56.4		274	14.8
50-----	30	20,547	-55.4		275	10.7
40-----	30	21,972	-54.8		272	7.0
30-----	29	23,813	-54.0		263	6.0
25-----	25	24,984	-53.1		259	10.1
20-----	23	26,428	-51.7		262	15.5
15-----	21	28,305	-49.2		277	13.0
10-----	16	31,005	-43.8		275	28.2
7------	16	33,432	-38.8		269	35.9
5------	13	35,771	-34.8			

POINT ARGUELLO, CALIF
(1004 MB.)

Standard pressure surface (mb)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind	
					Direction	Speed
SURFACE	29	113	9.0	87	325	4.5
1,000--	29	143	9.5	84	330	6.0
950----	29	581	13.3	55	356	11.9
900----	29	1,029	14.4	32	4	11.1
850----	29	1,510	13.2	24	342	10.5
800----	29	2,017	10.9	16	322	10.1
750----	29	2,554	8.2	13	322	10.9
700----	29	3,119	5.1	14	312	12.2
650----	29	3,714	1.3	13	298	12.6
600----	29	4,359	- 3.0	16	290	14.8
550----	29	5,033	- 7.8	17	291	17.9
500----	29	5,776	-13.3	18	285	21.4
450----	29	6,563	-19.5	22	287	22.7
400----	29	7,434	-26.5	23	286	23.9
350----	29	8,384	-34.2	29	287	28.6
300----	29	9,444	-42.6		287	33.0
250----	29	10,652	-51.7		284	37.9
200----	29	12,070	-59.6		282	44.3
175----	29	12,903	-60.4		279	44.5
150----	29	13,862	-61.5		278	42.7
125----	29	14,989	-63.0		278	35.9
100----	29	16,356	-65.2		282	29.0
80-----	29	17,711	-65.4		288	20.2
70-----	28	18,532	-64.4		295	11.7
60-----	28	19,471	-63.0		310	7.4
50-----	28	20,599	-60.6		350	5.1
40-----	28	21,996	-57.9		356	4.5
30-----	28	23,823	-54.9		323	3.7
25-----	27	24,992	-52.7		292	3.5
20-----	27	26,442	-49.4		264	9.3
15-----	26	28,329	-47.0		261	14.4
10-----	20	31,039	-42.0		266	31.1
7------	13	33,492	-37.3			
5------						

PONAPE, CAROLINE, IS.
(1004 MB.)

Standard pressure surface (mb)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind	
					Direction	Speed
SURFACE	30	39	25.8	89	83	3.9
1,000--	30	77	25.9	85	84	5.8
950----	30	526	23.1	87	87	13.2
900----	30	1,002	20.1	85	89	15.5
850----	30	1,495	17.9	76	90	14.2
800----	30	2,013	15.7	67	92	11.7
750----	30	2,557	12.8	67	91	9.9
700----	30	3,137	9.6	70	87	9.9
650----	30	3,747	6.3	67	89	9.7
600----	30	4,404	2.8	63	83	9.9
550----	30	5,098	- .8	59	82	8.5
500----	30	5,860	- 5.2	54	78	7.6
450----	30	6,675	- 9.6	44	68	6.8
400----	30	7,583	-15.6	48	57	4.9
350----	30	8,577	-22.2	45	50	2.1
300----	30	9,691	-30.7	40	101	2.5
250----	30	10,958	-40.9		150	5.8
200----	30	12,436	-53.3		179	7.6
175----	30	13,282	-60.1		192	6.2
150----	29	14,227	-67.1		170	3.1
125----	27	15,307	-74.6		137	3.1
100----	25	16,585	-80.7		74	5.6
80-----	21	17,853	-77.6		269	2.1
70-----	21	18,625	-72.9		266	12.8
60-----	21	19,540	-68.4		270	17.9
50-----	20	20,645	-64.8		280	13.2
40-----	20	22,023	-59.4		276	6.6
30-----	19	23,842	-55.7		88	15.5
25-----	18	25,008	-53.7		90	29.3
20-----	18	26,456	-49.5		86	46.6
15-----	16	28,360	-44.6		90	60.0
10-----	14	31,110	-39.9		87	68.4
7------	12	33,583	-36.6		90	63.7
5------	7	35,913	-33.2			

PORTLAND, ME.
(1012 MB.)

Standard pressure surface (mb)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind	
					Direction	Speed
SURFACE	30	20	2.7	81	265	3.1
1,000--	30	118	3.4	69	283	3.7
950----	30	537	3.4	63	287	8.7
900----	30	973	1.8	62	292	10.3
850----	30	1,432	- .5	62	286	13.8
800----	30	1,915	- 2.5	58	275	18.5
750----	29	2,426	- 4.9	54	268	23.9
700----	29	2,966	- 7.6	53	274	24.9
650----	29	3,532	-11.0	52	275	28.0
600----	29	4,149	-15.1	48	274	30.5
550----	29	4,796	-18.7	48	269	31.5
500----	29	5,508	-23.3	46	267	33.6
450----	29	6,264	-28.3	42	268	36.1
400----	29	7,109	-34.1		268	39.4
350----	29	8,032	-40.4		268	42.6
300----	29	9,068	-46.7		270	46.0
250----	29	10,265	-51.4		273	49.0
200----	29	11,702	-54.5		270	51.5
175----	29	12,557	-54.3		270	45.5
150----	29	13,547	-53.5		269	40.0
125----	28	14,726	-53.9		268	34.8
100----	28	16,155	-54.5		269	32.1
80-----	28	17,584	-54.7		271	20.6
70-----	28	18,441	-54.6		267	17.9
60-----	28	19,426	-54.9		267	15.7
50-----	28	20,595	-53.7		263	11.9
40-----	28	22,030	-53.5		258	11.5
30-----	28	23,885	-53.1		256	9.1
25-----	28	25,061	-52.9		262	10.7
20-----	25	26,504	-51.9		264	10.5
15-----	18	28,373	-49.7		274	12.6

RAPID CITY, S. DAK.
(904 MB.)

Standard pressure surface (mb)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind	
					Direction	Speed
SURFACE	30	966	3.2	69	330	5.1
1,000--	30	138				
950----	30	558				
900----	30	1,004			321	5.1
850----	30	1,471	5.4	48	315	11.9
800----	30	1,964	2.9	45	316	15.3
750----	30	2,481	- .1	45	314	17.5
700----	30	3,032	- 3.7	45	312	19.4
650----	30	3,605	- 7.5	38	309	23.1
600----	30	4,231	-11.7	37	305	23.3
550----	30	4,884	-16.3	37	304	25.1
500----	30	5,602	-21.1		301	27.8
450----	30	6,365	-27.0		298	29.5
400----	30	7,209	-33.6		297	32.1
350----	30	8,132	-40.5		296	32.1
300----	30	9,165	-47.9		293	32.8
250----	30	10,348	-54.8		290	36.5
200----	30	11,762	-57.9		289	36.7
175----	30	12,607	-56.0		287	37.1
150----	30	13,590	-55.1		287	34.8
125----	30	14,751	-56.3		295	29.7
100----	29	16,157	-57.5		292	22.7
80-----	29	17,564	-58.0		294	18.1
70-----	29	18,408	-57.3		302	13.6
60-----	29	19,381	-56.6		307	10.9
50-----	28	20,542	-56.1		310	6.8
40-----	28	21,963	-55.3		330	5.1
30-----	27	23,796	-54.1		326	3.1
25-----	24	24,982	-52.9		5	2.7
20-----	22	26,434	-51.2		10	4.1
15-----	14	28,333	-48.9		67	2.7

ST. CLOUD, MINN.
(979 MB.)

Standard pressure surface (mb)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind	
					Direction	Speed
SURFACE	30	316	- 0.4	80	348	2.1
1,000--	30	141				
950----	30	555	.8	70	3	4.3
900----	30	988	1.3	59	320	5.6
850----	30	1,448	.5	53	307	9.1
800----	30	1,933	- 1.5	48	302	10.3
750----	30	2,442	- 3.8	43	300	13.4
700----	30	2,988	- 6.8	40	305	14.2
650----	30	3,556	-10.1		301	15.9
600----	30	4,175	-13.8		299	19.0
550----	30	4,826	-18.0		300	22.0
500----	30	5,537	-23.0	40	298	23.7
450----	30	6,295	-28.4		296	25.8
400----	30	7,134	-34.7		296	27.4
350----	30	8,053	-41.6		298	30.3
300----	30	9,083	-48.5		299	34.0
250----	30	10,265	-54.3		296	33.4
200----	30	11,685	-56.3		293	35.6
175----	30	12,534	-55.0		292	35.2
150----	30	13,523	-53.5		292	30.7
125----	30	14,692	-55.0		290	27.8
100----	30	16,117	-55.9		292	25.1
80-----	30	17,536	-56.3		297	17.5
70-----	29	18,388	-55.9		303	15.7
60-----	29	19,367	-55.6		312	12.4
50-----	29	20,531	-55.0		309	9.1
40-----	29	21,958	-54.7		314	6.8
30-----	29	23,800	-54.3		334	6.0
25-----	27	24,974	-53.0		338	5.2
20-----	27	26,417	-52.1		345	6.4
15-----	23	28,279	-50.7		322	6.2
10-----	8	31,030	-47.7			

ST. PAUL IS., ALASKA
(1018 MB.)

Standard pressure surface (mb)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind	
					Direction	Speed
SURFACE	30	10	- 2.0	91	309	7.6
1,000--	30	147			309	10.5
950----	30	552	- 3.7	79	329	11.1
900----	30	979	- 4.2	68	324	11.5
850----	30	1,430	- 4.9	62	326	13.2
800----	30	1,905	- 7.0	59	323	16.1
750----	30	2,405	- 9.1	50	325	18.8
700----	30	2,939	-11.2	51	327	20.6
650----	30	3,502	-14.1	56	325	22.2
600----	30	4,108	-17.5	52	325	26.0
550----	30	4,752	-21.3	49	322	28.2
500----	30	5,453	-25.5	48	320	26.4
450----	30	6,205	-30.3	49	327	34.8
400----	30	7,038	-36.0	50	332	37.3
350----	30	7,953	-42.4		334	41.8
300----	30	8,981	-48.5		337	43.9
250----	29	10,169	-53.8		337	39.1
200----	28	11,602	-55.4		332	34.2
175----	28	12,457	-53.4		326	26.8
150----	28	13,451	-52.5		324	22.9
125----	28	14,628	-52.9		325	21.6
100----	28	16,064	-53.7		321	14.0
80-----	28	17,499	-53.6		308	10.1
70-----	28	18,363	-53.5		312	8.7
60-----	27	19,351	-53.6		310	7.0
50-----	26	20,521	-53.7		300	5.2
40-----	26	21,955	-53.8		285	4.9
30-----	23	23,806	-54.0		278	5.1
25-----	23	24,976	-54.0		277	5.2
20-----	20	26,418	-53.4		294	7.8
15-----	13	28,299	-52.0			

SALEM, OREG.
(1013 MB.)

Standard pressure surface (mb)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind	
					Direction	Speed
SURFACE	30	61	6.3	89	180	5.2
1,000--	30	167	7.9	78	189	4.5
950----	30	588	7.0	70	220	8.2
900----	30	1,033	4.9	70	230	10.7
850----	30	1,498	2.5	70	233	13.4
800----	30	1,987	.2	59	243	15.7
750----	30	2,500	- 2.1	53	253	19.4
700----	30	3,048	- 4.7	48	248	19.4
650----	30	3,625	- 7.6	45	256	22.7
600----	30	4,248	-11.1	42	257	25.1
550----	30	4,906	-15.5	39	260	28.2
500----	30	5,624	-20.0	37	261	33.2
450----	30	6,391	-25.3		263	35.4
400----	30	7,243	-31.4		265	39.1
350----	30	8,175	-38.3		269	42.2
300----	30	9,218	-46.2		270	43.5
250----	30	10,407	-54.6		276	48.0
200----	30	11,815	-59.8		270	48.0
175----	30	12,652	-58.0		267	41.4
150----	30	13,628	-56.5		265	39.4
125----	30	14,784	-57.3		262	31.9
100----	30	16,177	-57.8		263	26.0
80-----	30	17,599	-57.9		272	16.5
70-----	30	18,440	-58.2		269	13.0
60-----	30	19,411	-58.1		283	9.3
50-----	29	20,561	-57.6		288	5.2
40-----	27	21,981	-56.8		321	2.9
30-----	24	23,811	-55.8		355	.6
25-----	24	24,972	-55.5		68	1.6
20-----	20	26,411	-54.1		91	2.5
15-----	6	28,276	-52.3			

SALT LAKE CITY, UTAH
(872 MB.)

Standard pressure surface (mb)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind	
					Direction	Speed
SURFACE	30	1,288	6.6	70	162	4.3
1,000--	30	149				
950----	30	576				
900----	30	1,028				
850----	30	1,503	9.9	47	172	4.1
800----	30	2,006	7.7	41	224	3.9
750----	30	2,532	3.8	44	265	6.0
700----	30	3,091	- .4	45	276	8.4
650----	30	3,673	- 4.5	44	281	12.4
600----	30	4,305	- 8.8	45	284	16.7
550----	30	4,969	-13.5	44	287	20.0
500----	30	5,693	-18.3	41	283	24.3
450----	30	6,465	-24.1	40	285	26.0
400----	30	7,321	-30.6		289	28.6
350----	30	8,256	-37.6		290	31.5
300----	29	9,305	-45.5		290	34.4
250----	29	10,497	-54.0		292	39.1
200----	29	11,906	-59.6		287	38.5
175----	29	12,741	-58.8		284	36.9
150----	29	13,713	-57.6		285	37.9
125----	29	14,861	-59.0		283	29.7
100----	29	16,253	-60.5		286	25.1
80-----	27	17,634	-60.5		293	14.0
70-----	27	18,470	-59.9		298	10.5
60-----	26	19,427	-58.8		306	7.6
50-----	24	20,573	-58.2		298	3.9
40-----	23	21,978	-57.0		322	3.7
30-----	20	23,805	-55.5		309	4.3
25-----	13	24,985	-54.0		301	5.1
20-----	8	26,433	-52.2			

SAN ANTONIO, TEXAS
(988 MB.)

Standard pressure surface (mb)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind	
					Direction	Speed
SURFACE	30	243	15.5	87	127	3.1
1,000--	30	137				
950----	30	575	14.9	76	152	7.8
900----	30	1,031	14.1	63	182	12.8
850----	30	1,514	13.0	47	204	11.5
800----	30	2,022	11.0	40	231	11.3
750----	30	2,555	7.9	37	244	9.5
700----	30	3,124	4.5	34	275	11.5
650----	30	3,719	.5	31	282	14.4
600----	30	4,362	- 4.0		288	17.1
550----	30	5,036	- 9.0		280	18.7
500----	30	5,774	-14.6		270	21.8
450----	30	6,559	-20.3		270	28.4
400----	30	7,428	-26.5		271	30.1
350----	30	8,379	-33.5		269	36.5
300----	30	9,442	-41.8		270	43.1
250----	30	10,654	-50.8		264	52.1
200----	30	12,080	-57.9		268	59.5
175----	30	12,920	-59.2		267	57.3
150----	30	13,882	-60.9		269	56.5
125----	29	15,008	-63.9		270	46.2
100----	29	16,364	-67.3		275	31.5
80-----	28	17,706	-67.2		274	18.8
70-----	28	18,521	-65.0		268	12.0
60-----	26	19,459	-63.0		250	6.0
50-----	25	20,592	-59.1		112	1.2
40-----	23	21,996	-55.9		24	1.6
30-----	22	23,845	-52.4		58	6.4
25-----	22	25,030	-50.4		64	6.6
20-----	21	26,495	-47.5		115	1.4
15-----	19	28,417	-43.8		114	1.4
10-----	11	31,168	-39.7			

See reference note at end of table

RAWINSONDE DATA

Average monthly values

APRIL 1962

SAN DIEGO, CALIF.
(1001 MB.)

Standard pressure surface (mb)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind	
					Direction	Speed
SURFACE	30	124	11.8	89	117	0.8
1,000	30	128			78	.6
950	30	558	14.2	57	57	.8
900	30	1,017	14.4	42	350	2.5
850	30	1,500	13.8	27	315	7.0
800	30	2,009	11.6	20	305	6.0
750	30	2,534	8.7		297	7.4
700	30	3 114	5.6		297	9.5
650	30	3,706	1.9		292	12.2
600	30	4,357	- 2.3		291	14.0
550	30	5,031	- 7.2		290	15.2
500	30	5,778	-12.6		292	17.3
450	30	6,564	-18.7		292	21.4
400	30	7,443	-25.7		292	24.7
350	30	8,396	-33.2		294	29.3
300	30	9,461	-41.5		293	32.8
250	30	10,674	-50.7		295	38.9
200	29	12,094	-59.0		290	45.1
175	29	12,927	-60.7		291	46.2
150	29	13,883	-61.6		286	44.5
125	29	15,008	-63.2		287	38.1
100	29	16,372	-65.5		287	27.0
80	28	17,725	-67.1		289	15.5
70	28	18,541	-65.0		299	9.7
60	28	19,475	-63.4		320	6.0
50	28	20,604	-60.2		5	3.3
40	27	22,012	-56.4		58	1.2
30	27	23,849	-53.2		347	.6
25	26	25,032	-51.7		352	1.6
20	19	26,497	-48.3		324	2.3
15	9	28,432	-46.4			
10						
7						
5						

SAN JUAN, P. R.
(1016 MB.)

Standard pressure surface (mb)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind	
					Direction	Speed
SURFACE	30	6	23.0	85	98	2.7
1,000	30	143	22.9	80	97	11.7
950	30	586	20.2	78	96	14.8
900	30	1,054	17.2	76	98	14.6
850	30	1,540	14.0	73	105	13.4
800	30	2,049	11.7	65	95	9.1
750	30	2,585	9.9	45	80	6.8
700	30	3,159	7.1	42	79	5.4
650	30	3,756	4.0	32	53	2.7
600	30	4,413	1.2		54	3.3
550	30	5,100	- 2.2		334	2.5
500	30	5,860	- 6.2		309	4.5
450	30	6,664	-11.6		287	8.4
400	29	7,567	-17.9		298	13.6
350	29	8,551	-25.2		291	18.7
300	29	9,652	-33.6		291	22.2
250	29	10,904	-43.4		283	28.6
200	29	12,368	-54.8		280	36.7
175	29	13,209	-61.1		283	36.9
150	29	14,152	-67.5		278	34.8
125	29	15,236	-72.2		280	25.5
100	29	16,533	-76.9		286	16.9
80	29	17,811	-77.4		346	7.0
70	29	18,588	-73.6		29	8.4
60	29	19,497	-68.3		46	7.4
50	28	20,608	-61.9		75	11.1
40	28	22,012	-55.9		78	14.8
30	27	23,862	-51.4		85	18.7
25	27	25,054	-48.6		94	20.8
20	24	26,534	-46.3		95	21.2
15	16	28,450	-43.1		92	23.5
10						
7						
5						

SANTA MONICA, CALIF.
(1011 MB.)

Standard pressure surface (mb)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind	
					Direction	Speed
SURFACE	30	38	12.8	83	41	1.7
1,000	30	133	13.3	79	44	2.1
950	30	570	15.7	53	31	3.9
900	30	1,025	15.2	38	351	4.5
850	30	1,508	13.8	30	330	5.2
800	30	2,016	11.6		317	5.1
750	30	2,549	8.6		315	6.6
700	30	3,120	5.2		300	9.7
650	30	3,718	1.4		296	13.4
600	30	4,360	- 2.8		298	14.4
550	30	5,037	- 7.6		294	16.7
500	30	5,778	-13.0		289	18.8
450	30	6,566	-19.3		290	22.3
400	30	7,436	-26.3		292	25.3
350	30	8,387	-33.8		290	29.9
300	30	9,449	-42.4		291	33.4
250	30	10,657	-51.2		289	38.5
200	30	12,076	-59.5		284	42.7
175	30	12,908	-60.9		286	44.7
150	30	13,864	-61.8		281	42.6
125	30	14,988	-63.6		283	37.1
100	30	16,349	-65.9		284	26.6
80	29	17,700	-66.9		293	17.1
70	29	18,512	-65.3		304	11.1
60	29	19,451	-63.2		323	6.0
50	29	20,577	-60.7		11	4.1
40	28	21,977	-57.6		46	.6
30	25	23,804	-54.4		317	2.7
25	24	24,982	-52.5		290	3.9
20	24	26,433	-49.5		269	8.2
15	18	28,315	-47.7		269	12.2
10	7	31,049	-42.8			
7						
5						

SAULT STE. MARIE, MICH.
(989 MB.)

Standard pressure surface (mb)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind	
					Direction	Speed
SURFACE	30	221	- 0.2	81	35	1.7
1,000	30	131				
950	30	542	- .1	68	358	1.7
900	30	975	- 1.2	66	293	6.0
850	30	1,430	- 2.6	64	291	9.9
800	30	1,909	- 4.7	63	290	12.4
750	30	2,415	- 7.1	59	287	15.0
700	30	2,951	- 9.7	50	282	17.1
650	30	3,516	-12.8	47	282	18.1
600	30	4,126	-16.5	42	283	20.4
550	30	4,770	-20.8	41	280	20.8
500	30	5,473	-25.8	37	283	21.4
450	30	6,223	-31.2		284	22.0
400	30	7,054	-37.0		284	24.3
350	30	7,965	-43.2		279	27.0
300	30	8,990	-48.8		288	29.5
250	30	10,176	-53.3		289	31.3
200	30	11,610	-53.9		289	32.4
175	30	12,470	-52.9		287	32.4
150	30	13,466	-52.4		289	30.9
125	30	14,644	-52.9		286	28.0
100	30	16,081	-53.6		289	24.7
80	30	17,513	-54.3		286	18.8
70	30	18,371	-54.2		285	17.1
60	30	19,361	-54.1		289	15.0
50	30	20,532	-53.9		284	9.7
40	30	21,964	-53.8		286	7.2
30	29	23,815	-53.0		306	7.2
25	28	24,993	-52.5		315	5.6
20	26	26,433	-51.9		297	7.4
15	24	28,302	-50.8		287	10.3
10	22	30,966	-46.8		281	17.3
7	21	33,350	-43.0		280	21.4
5	15	35,644	-39.6			

SEATTLE, WASH.
(1004 MB.)

Standard pressure surface (mb)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind	
					Direction	Speed
SURFACE	30	125	6.7	87	175	5.2
1,000	30	156			175	4.9
950	30	575	6.0	75	213	10.7
900	30	1,019	3.9	74	220	12.0
850	30	1,482	1.4	73	226	13.8
800	30	1,969	- 1.1	66	232	14.6
750	30	2,479	- 3.6	57	240	17.3
700	30	3,024	- 6.4	53	247	19.6
650	30	3,598	- 9.4	50	250	23.1
600	30	4,216	-12.9	46	252	26.6
550	30	4,869	-17.3	44	256	30.1
500	30	5,583	-22.1	44	257	34.2
450	30	6,345	-27.3		261	38.3
400	30	7,189	-33.3		263	42.0
350	30	8,115	-39.6		267	46.8
300	29	9,157	-47.3		271	53.4
250	29	10,341	-55.1		271	56.3
200	29	11,749	-58.9		269	51.9
175	28	12,591	-56.5		268	45.9
150	28	13,574	-54.5		269	37.7
125	28	14,739	-55.5		270	31.3
100	28	16,158	-56.4		268	26.2
80	28	17,576	-56.2		273	19.8
70	28	18,426	-56.2		276	14.8
60	25	19,410	-56.3		287	10.5
50	25	20,568	-56.4		299	7.2
40	25	21,986	-55.8		305	5.6
30	20	23,816	-55.8		319	2.7
25	14	24,986	-55.1		17	1.7
20	6	26,418	-54.0			
15						
10						
7						
5						

SHEMYA, ALASKA
(1021 MB.)

Standard pressure surface (mb)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind	
					Direction	Speed
SURFACE	30	38	2.5	92	230	8.7
1,000	30	209	1.8	87	215	13.4
950	30	621	1.0	77	236	14.4
900	30	1,056	- .2	71	246	13.6
850	30	1,512	- 1.7	59	248	13.6
800	30	1,993	- 3.2	50	252	14.2
750	30	2,500	- 5.2	46	256	15.9
700	30	3,042	- 7.5	48	253	16.9
650	30	3,613	-10.4	50	256	17.9
600	30	4,228	-13.5	46	253	20.8
550	30	4,880	-17.4	42	260	22.3
500	30	5,593	-21.9	45	259	26.4
450	30	6,354	-27.0	45	257	29.7
400	30	7,200	-32.9	43	257	31.7
350	30	8,126	-39.7		262	36.7
300	30	9,163	-47.5		259	36.5
250	30	10,347	-54.8		257	34.8
200	29	11,748	-59.0		261	33.0
175	29	12,588	-57.0		266	29.0
150	28	13,583	-55.6		268	25.5
125	28	14,744	-55.9		267	20.6
100	28	16,160	-56.5		279	16.3
80	28	17,576	-56.4		283	10.5
70	28	18,425	-56.4		279	9.9
60	27	19,403	-56.1		291	8.9
50	26	20,566	-56.0		299	3.7
40	26	21,986	-55.8		276	.6
30	23	23,818	-55.4		46	2.3
25	19	24,987	-54.3		70	2.1
20	13	26,426	-52.7		78	2.5
15						
10						
7						
5						

SHREVEPORT, LA.
(1009 MB.)

Standard pressure surface (mb)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind	
					Direction	Speed
SURFACE	30	79	13.4	92	147	3.1
1,000	30	155	13.9	81	142	3.9
950	30	589	13.4	66	194	8.2
900	30	1,043	11.4	60	218	8.9
850	30	1,519	9.3	56	238	10.1
800	30	2,020	6.9	50	252	10.7
750	30	2,548	4.1	45	265	13.6
700	30	3,106	1.0	45	278	15.5
650	30	3,694	- 2.6	45	279	18.8
600	30	4,329	- 6.6	41	277	21.4
550	30	4,995	-10.8		277	22.7
500	30	5,730	-15.9		271	25.8
450	30	6,509	-21.7		269	27.0
400	30	7,374	-28.1		270	29.7
350	30	8,319	-35.3		271	33.2
300	30	9,375	-43.6		270	38.1
250	30	10,577	-52.5		268	46.2
200	30	11,996	-58.9		267	52.3
175	30	12,833	-59.1		266	53.2
150	30	13,799	-60.1		267	47.8
125	30	14,931	-62.6		269	42.6
100	30	16,302	-63.8		276	33.8
80	29	17,665	-64.7		276	18.5
70	29	18,492	-63.5		273	14.4
60	29	19,432	-61.4		271	10.1
50	28	20,575	-58.2		275	5.2
40	28	21,987	-55.9		282	2.3
30	28	23,828	-53.2		303	2.5
25	27	25,010	-51.2		290	3.5
20	27	26,470	-48.0		272	9.1
15	27	28,381	-44.7		264	11.7
10	22	31,132	-39.4		274	22.5
7	16	33,590	-36.4		270	33.4
5	11	35,943	-35.2			

SPOKANE, WASH.
(932 MB.)

Standard pressure surface (mb)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind	
					Direction	Speed
SURFACE	30	722	4.3	75	184	5.6
1,000	30	144				
950	30	569				
900	30	1,012	7.4	56	200	6.6
850	30	1,481	5.3	50	234	8.7
800	30	1,974	1.9	51	241	9.1
750	30	2,490	- 1.9	55	247	10.5
700	30	3,036	- 5.4	52	254	13.4
650	30	3,610	- 8.6	43	258	17.7
600	30	4,230	-12.5	40	262	21.4
550	30	4,887	-16.6	35	257	24.9
500	30	5,600	-21.2	36	263	29.1
450	30	6,362	-26.4	40	264	32.4
400	30	7,211	-32.8	43	265	35.9
350	30	8,137	-39.9		268	41.2
300	30	9,173	-47.2		275	44.7
250	30	10,360	-54.6		273	46.8
200	30	11,777	-57.6		272	44.3
175	30	12,623	-55.8		270	39.2
150	30	13,609	-54.4		269	34.4
125	30	14,775	-55.2		270	31.1
100	30	16,197	-56.3		271	24.7
80	30	17,616	-56.4		277	15.9
70	30	18,464	-57.0		286	14.8
60	30	19,439	-56.3		293	11.1
50	30	20,599	-55.6		307	7.8
40	29	22,018	-55.5		327	4.3
30	26	23,846	-54.2		320	4.9
25	26	25,015	-54.0		348	2.9
20	23	26,461	-53.1		3	2.7
15	17	28,318	-51.7			
10						
7						
5						

SWAN ISLAND, W. I.
(1013 MB.)

Standard pressure surface (mb)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind	
					Direction	Speed
SURFACE	30	10	25.7	81	80	8.0
1,000	30	125	24.6	80	79	10.9
950	30	573	21.5	80	93	14.4
900	30	1,042	18.7	76	101	14.4
850	30	1,532	15.7	72	97	13.0
800	30	2,045	13.1	64	105	9.7
750	30	2,585	10.8	54	105	9.1
700	30	3,159	8.1	44	105	6.4
650	29	3,764	5.1		109	5.2
600	29	4,419	1.9		143	3.5
550	29	5,105	- 2.0		161	1.7
500	29	5,868	- 6.5		224	4.1
450	29	6,676	-12.0		238	7.6
400	29	7,576	-18.4		250	10.9
350	29	8,559	-25.3		249	19.2
300	29	9,659	-33.7		253	23.3
250	29	10,912	-43.5		249	29.7
200	28	12,375	-55.4		243	36.3
175	28	13,215	-61.4		245	36.7
150	28	14,157	-67.2		249	32.1
125	28	15,243	-71.9		248	27.2
100	27	16,541	-76.6		252	15.0
80	26	17,827	-76.1		268	1.9
70	26	18,606	-74.0		56	2.1
60	26	19,511	-69.4		77	5.6
50	25	20,615	-62.9		84	9.3
40	25	22,014	-55.6		84	13.6
30	24	23,872	-49.9		85	19.6
25	23	25,070	-47.6		88	24.1
20	20	26,554	-44.9		95	27.2
15	6	28,493	-40.6			
10						
7						
5						

TAMPA, FLA.
(1019 MB.)

Standard pressure surface (mb)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind	
					Direction	Speed
SURFACE	30	8	16.2	81	78	3.7
1,000	30	170	17.5	71	88	5.4
950	30	606	16.0	62	124	4.3
900	30	1,065	13.5	59	170	3.5
850	30	1,546	11.2	53	228	3.7
800	30	2,050	9.5	42	265	5.8
750	30	2,583	7.4	33	270	9.3
700	30	3,149	4.4	30	276	12.6
650	30	3,746	.7		269	15.7
600	30	4,387	- 3.2		268	19.8
550	30	5,060	- 7.5		268	24.3
500	30	5,806	-12.3		270	27.8
450	30	6,597	-17.9		266	31.5
400	30	7,474	-24.1		264	37.5
350	29	8,433	-30.9		262	42.7
300	29	9,508	-38.9		262	52.1
250	28	10,734	-48.1		261	65.3
200	28	12,175	-56.7		261	72.9
175	28	13,017	-59.7		264	68.6
150	28	13,975	-62.5		261	66.1
125	28	15,090	-66.0		263	56.9
100	27	16,436	-68.9		264	42.0
80	27	17,769	-69.2		265	25.1
70	27	18,580	-66.7		264	13.8
60	27	19,509	-63.7		266	6.0
50	27	20,638	-59.8		26	1.7
40	27	22,050	-55.3		72	8.0
30	27	23,903	-51.5		71	8.9
25	27	25,095	-48.6		72	9.9
20	24	26,578	-45.3		78	8.2
15	18	28,509	-41.0		50	1.9
10						
7						
5						

TATOOSH IS., WASH.
(1014 MB.)

Standard pressure surface (mb)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind	
					Direction	Speed
SURFACE	30	31	7.7	87	169	6.0
1,000	30	148	7.4	82	192	8.0
950	30	563	4.9	80	198	9.7
900	30	1,008	2.4	76	203	12.0
850	30	1,468	.4	70	210	13.6
800	30	1,952	- 2.0	61	219	15.7
750	30	2,459	- 4.5	55	227	16.7
700	30	3,004	- 7.3	49	235	20.6
650	30	3,573	-10.0	44	237	24.7
600	30	4,192	-13.7	43	240	27.8
550	30	4,840	-17.8	40	244	31.3
500	30	5,555	-22.4	41	244	35.0
450	30	6,314	-27.8	40	249	39.1
400	30	7,158	-34.0	41	244	41.8
350	30	8,080	-40.4		250	46.6
300	30	9,114	-47.5		250	51.7
250	30	10,300	-54.1		256	56.2
200	30	11,716	-56.8		251	48.4
175	30	12,565	-55.2		253	42.7
150	30	13,552	-53.6		255	36.1
125	30	14,723	-54.2		253	30.1
100	29	16,148	-55.5		255	21.6
80	29	17,570	-55.4		257	15.2
70	28	18,420	-55.7		254	11.5
60	28	19,400	-55.7		276	7.4
50	26	20,561	-56.0		300	5.4
40	26	21,980	-55.8		326	2.5
30	26	23,812	-55.2		19	3.3
25	26	24,977	-54.4		84	3.5
20	25	26,409	-53.7		53	2.9
15	23	28,260	-52.5		72	4.5
10	20	30,918	-48.4		9	2.9
7	15	33,309	-41.4			
5						

TOPEKA, KANS.
(985 MB.)

Standard pressure surface (mb)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind	
					Direction	Speed
SURFACE	30	269	5.4	76	297	1.4
1,000	30	147				
950	30	567	8.2	58	269	1.0
900	30	1,015	7.0	53	258	6.2
850	30	1,484	5.4	47	275	9.9
800	30	1,977	2.9	45	274	13.2
750	30	2,495	.3	46	281	15.5
700	30	3,047	- 3.0	45	292	17.3
650	30	3,623	- 6.6	40	287	21.4
600	30	4,251	-10.7	38	289	25.5
550	30	4,908	-15.0	36	290	27.6
500	30	5,630	-19.6		290	29.0
450	30	6,396	-25.1		288	32.4
400	30	7,250	-31.4		289	33.4
350	30	8,182	-38.2		285	36.7
300	30	9,226	-45.9		282	41.4
250	30	10,417	-54.1		279	44.1
200	30	11,833	-58.0		280	44.3
175	30	12,676	-56.8		282	42.4
150	30	13,655	-56.3		283	38.1
125	30	14,810	-57.7		281	32.4
100	30	16,213	-59.1		284	26.4
80	30	17,609	-59.8		285	18.5
70	30	18,449	-59.2		284	14.4
60	30	19,412	-58.8		288	11.1
50	30	20,562	-57.0		294	8.4
40	30	21,981	-55.6		291	6.0
30	27	23,823	-53.6		284	6.6
25	27	24,999	-53.0		285	8.9
20	22	26,452	-50.9		282	13.6
15	9	28,319	-48.7			
10						
7						
5						

TRUK, CAROLINE IS.
(1009 MB.)

Standard pressure surface (mb)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind	
					Direction	Speed
SURFACE	30	2	26.9	85	62	2.9
1,000	30	83	26.7	84	71	4.9
950	30	531	24.1	83	95	10.9
900	30	1,010	21.4	81	102	10.3
850	29	1,505	18.6	78	104	10.3
800	29	2,025	15.7	76	109	9.9
750	29	2,572	13.0	69	99	9.3
700	29	3,150	9.9	66	97	9.1
650	29	3,764	6.6	65	97	8.5
600	29	4,418	2.8	63	107	9.7
550	29	5,116	- 1.1	55	95	8.4
500	29	5,875	- 5.3	49	99	9.9
450	29	6,694	- 9.9	41	95	10.7
400	29	7,598	-15.4		89	8.0
350	29	8,593	-22.1		89	6.8
300	29	9,708	-30.4		125	3.7
250	29	10,978	-40.6		167	7.4
200	29	12,457	-53.0		179	8.9
175	29	13,304	-60.0		180	8.5
150	29	14,250	-67.5		161	7.8
125	29	15,326	-75.5		126	6.8
100	29	16,594	-82.3		91	7.8
80	28	17,848	-79.0		56	3.7
70	28	18,615	-74.5		273	6.2
60	27	19,525	-69.6		276	10.7
50	26	20,626	-65.0		292	10.5
40	26	22,004	-59.8		283	4.9
30	26	23,823	-55.0		98	16.5
25	24	24,994	-52.9		99	32.8
20	24	26,445	-49.4		98	50.5
15	19	28,343	-45.1		99	58.9
10	15	31,089	-40.2		98	72.5
7	6	33,552	-37.4			
5	6	35,882	-34.8			

TUCSON, ARIZ.
(924 MB.)

Standard pressure surface (mb)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind	
					Direction	Speed
SURFACE	30	789	13.3	33	153	6.4
1,000	30	110				
950	30	550				
900	30	1,010	19.2	20	168	5.1
850	30	1,498	16.6	20	246	3.3
800	30	2,010	12.8	22	279	4.7
750	30	2,542	8.6	26	269	6.4
700	30	3,114	4.5	25	253	8.2
650	30	3,710	.6	25	255	11.1
600	30	4,351	- 3.7		270	13.0
550	30	5,028	- 7.9		279	16.7
500	30	5,767	-13.1		282	17.5
450	30	6,551	-19.4		290	20.2
400	30	7,425	-26.3		292	22.5
350	30	8,375	-33.8		296	25.6
300	30	9,436	-42.2		294	30.9
250	30	10,645	-51.2		295	37.7
200	30	12,066	-58.9		291	46.4
175	30	12,903	-59.3		288	45.7
150	30	13,866	-60.1		286	44.3
125	30	14,997	-62.8		285	37.7
100	29	16,362	-66.0		287	28.6
80	29	17,713	-66.5		290	14.2
70	29	18,538	-64.3		289	8.2
60	29	19,473	-62.3		298	3.3
50	29	20,608	-58.9		70	2.5
40	27	22,017	-55.6		106	1.4
30	26	23,862	-52.3		341	1.0
25	26	25,047	-49.8		258	3.3
20	25	26,515	-46.8		243	7.6
15	24	28,438	-43.3		262	12.2
10	23	31,205	-37.5		263	21.8
7	17	33,670	-34.0		260	29.5
5	5	35,994	-29.7			

WAKE IS., PACIFIC AREA
(1014 MB.)

Standard pressure surface (mb)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind	
					Direction	Speed
SURFACE	30	5	24.8	76	70	8.0
1,000	30	127	23.9	77	77	10.3
950	30	572	20.6	78	86	10.5
900	30	1,040	17.3	78	90	8.0
850	30	1,527	14.2	74	90	5.2
800	30	2,038	12.0	64	94	2.1
750	30	2,577	10.6	43	243	.8
700	30	3,150	8.1		284	3.5
650	30	3,753	5.1		289	5.1
600	30	4,407	1.3		282	6.4
550	30	5,095	- 3.0		285	9.5
500	30	5,851	- 7.8		274	12.0
450	30	6,656	-12.9		283	19.0
400	30	7,551	-19.1		283	22.5
350	30	8,530	-26.3		284	30.3
300	30	9,627	-34.4		282	38.1
250	30	10,879	-43.1		284	48.6
200	30	12,350	-53.3		284	53.6
175	30	13,198	-59.2		285	51.9
150	30	14,149	-65.9		282	46.6
125	30	15,237	-72.7		284	38.7
100	30	16,528	-77.5		290	27.4
80	30	17,806	-77.1		303	10.9
70	30	18,578	-73.9		345	2.9
60	30	19,490	-68.7		82	5.8
50	29	20,599	-62.5		94	9.7
40	29	21,991	-57.9		99	10.3
30	28	23,824	-53.5		85	15.3
25	28	25,005	-50.3		88	18.3
20	27	26,474	-47.3		82	21.2
15	26	28,387	-44.3		80	24.3
10	24	31,135	-40.1		79	21.0
7	22	33,586	-36.3		84	21.6
5	17	35,914	-34.7		78	19.8

See reference note at end of table

RAWINSONDE DATA

Average monthly values

Standard pressure surface (mb)	WASHINGTON, D. C. (1007 MB.)						WINNEMUCCA, NEV. (871 MB.)						WINSLOW, ARIZ. (852 MB.)					
	Number of observations	Dynamic height	Temperature	Relative humidity	Wind Direction	Wind Speed	Number of observations	Dynamic height	Temperature	Relative humidity	Wind Direction	Wind Speed	Number of observations	Dynamic height	Temperature	Relative humidity	Wind Direction	Wind Speed
SURFACE	30	84	6.6	81	265	1.9	30	1,310	2.4	69	148	1.0	29	1,492	6.3	44	198	4.5
1,000--	30	143			265	3.1	30	169					29	147				
950----	30	568	8.2	59	278	9.1	30	591					29	574				
900----	30	1,013	5.6	60	280	11.5	30	1,042					29	1,031				
850----	30	1,478	2.6	62	273	14.8	30	1,507	8.7	44	313	1.0	29	1,506			167	3.1
800----	30	1,966	- .3	62	274	17.9	30	2,008	7.0	39	297	4.7	29	2,014	11.3	25	268	6.8
750----	30	2,482	- 3.2	62	272	18.7	30	2,527	3.0	41	284	6.4	29	2,546	7.8	28	275	9.7
700----	30	3,024	- 6.1	59	269	20.0	30	3,089	- 1.0	41	274	10.7	29	3,114	3.6	29	275	11.7
650----	30	3,600	- 9.1	55	266	23.9	30	3,665	- 4.6	38	269	12.4	29	3,704	- .6	30	275	11.5
600----	30	4,217	-12.7	50	262	28.0	30	4,303	- 8.4	34	269	16.9	29	4,346	- 5.0	26	280	13.4
550----	30	4,872	-16.6	42	265	30.1	30	4,960	-12.7	33	274	18.7	29	5,016	- 9.3		288	16.9
500----	30	5,587	-21.3		260	32.6	30	5,693	-17.9		276	20.2	29	5,758	-14.6		289	19.2
450----	30	6,350	-26.4		263	36.9	30	6,460	-23.6	33	274	23.3	29	6,528	-20.9		292	21.6
400----	30	7,199	-32.0		262	40.2	30	7,323	-30.0		276	25.1	29	7,404	-27.9		295	26.4
350----	30	8,129	-38.7		260	43.5	30	8,260	-37.1		279	28.2	29	8,350	-35.1		297	28.4
300----	30	9,172	-45.9		261	47.0	30	9,308	-44.8		284	33.2	29	9,405	-43.6		298	34.6
250----	30	10,368	-52.4		261	53.4	30	10,504	-53.2		286	36.7	29	10,605	-52.6		297	43.5
200----	30	11,796	-56.3		263	55.2	30	11,918	-59.4		284	40.8	29	12,019	-59.2		291	47.4
175----	30	12,646	-55.8		265	50.1	30	12,754	-59.1		276	40.2	29	12,855	-59.2		291	43.5
150----	30	13,627	-55.9		265	43.1	30	13,723	-58.3		277	35.8	29	13,819	-60.0		290	40.8
125----	30	14,787	-57.0		264	36.5	29	14,866	-58.9		273	30.1	29	14,952	-62.2		288	35.2
100----	30	16,192	-58.6		266	30.9	29	16,263	-60.1		271	21.2	29	16,323	-64.6		288	26.0
80-----	30	17,595	-58.6		265	22.2	29	17,652	-60.8		281	13.4	27	17,682	-64.3		289	17.1
70-----	30	18,447	-58.0		263	19.2	29	18,486	-60.2		281	8.2	27	18,510	-63.5		289	11.5
60-----	30	19,408	-56.8		271	12.6	28	19,449	-59.3		301	4.3	26	19,450	-61.4		302	6.6
50-----	30	20,566	-55.9		265	11.9	28	20,595	-58.0		316	1.9	25	20,583	-59.4		308	2.5
40-----	28	21,993	-54.5		271	8.5	25	22,004	-56.9		72	1.4	23	21,982	-57.2		295	2.1
30-----	25	23,836	-54.1		259	6.2	22	23,834	-55.4		4	1.7	20	23,812	-54.0		291	2.9
25-----	25	25,008	-53.1		273	6.4	20	25,002	-54.3		317	2.1	16	24,984	-52.5		296	5.8
20-----	18	26,455	-51.5		274	9.9	13	26,438	-52.4		297	5.4	10	26,449	-49.9			
15-----	13	28,340	-49.5		267	13.4	6	28,340	-49.4				5	28,296	-47.4			
10-----	7	31,056	-42.7															

Standard pressure surface (mb)	YAKUTAT, ALASKA (1007 MB.)						YAP, CAROLINE IS. (1006 MB.)					
	Number of observations	Dynamic height	Temperature	Relative humidity	Wind Direction	Wind Speed	Number of observations	Dynamic height	Temperature	Relative humidity	Wind Direction	Wind Speed
SURFACE	30	12	0.7	91	93	4.7	22	17	26.3	90	32	5.6
1,000--	30	69			106	7.4	22	74	25.9	90	42	7.2
950----	30	485	1.3	70	120	13.8	22	515	22.9	86	44	10.9
900----	30	916	- 1.6	68	130	15.2	22	996	20.0	83	56	13.0
850----	30	1,368	- 4.7	66	134	15.3	22	1,488	17.3	78	62	12.0
800----	30	1,843	- 8.0	67	141	16.7	22	2,005	14.9	67	58	10.5
750----	30	2,338	-11.1	63	142	14.8	22	2,543	11.7	60	52	9.3
700----	30	2,868	-14.1	59	154	12.0	22	3,125	9.1	53	49	8.4
650----	30	3,423	-17.7	54	166	11.7	22	3,727	5.9	47	45	8.5
600----	30	4,021	-21.7	55	170	12.2	22	4,388	2.6	51	48	9.7
550----	30	4,651	-26.0	55	176	12.4	22	5,078	- 1.0		51	9.9
500----	30	5,339	-31.0	56	182	10.7	22	5,843	- 5.4		54	10.5
450----	30	6,071	-36.3	53	181	11.5	22	6,658	-10.3		48	12.0
400----	30	6,885	-42.3		186	11.5	21	7,565	-15.9		55	10.9
350----	30	7,776	-47.9		192	12.2	21	8,557	-22.5		64	7.6
300----	30	8,786	-50.8		220	10.7	21	9,671	-30.5		87	4.9
250----	30	9,973	-50.5		248	11.1	21	10,939	-40.8		118	5.4
200----	30	11,435	-48.2		264	12.8	21	12,418	-53.1		142	6.6
175----	30	12,316	-47.8		268	13.8	21	13,264	-60.3		138	7.2
150----	30	13,332	-48.5		265	13.6	21	14,207	-68.2		109	7.8
125----	30	14,529	-49.5		270	13.4	19	15,284	-76.2		116	6.0
100----	30	15,986	-50.7		268	13.0	16	16,542	-82.3		72	11.9
80-----	30	17,438	-51.2		273	13.2	13	17,791	-80.5		129	4.3
70-----	29	18,307	-51.4		271	12.2	12	18,551	-76.5		203	3.3
60-----	29	19,306	-51.6		276	12.2	10	19,455	-70.3		289	6.8
50-----	29	20,487	-52.0		283	11.1	10	20,553	-65.7		290	4.9
40-----	29	21,930	-52.7		285	10.5	10	21,924	-60.7		38	2.1
30-----	28	23,783	-53.5		297	10.7	10	23,737	-55.3		83	14.8
25-----	27	24,956	-53.8		299	8.7	10	24,908	-53.1		92	25.3
20-----	26	26,391	-53.7		301	7.4	10	26,355	-50.3		88	39.4
15-----	23	28,242	-53.5		326	7.0	10	28,249	-46.4			
10-----	6	30,915	-51.4				7	31,016	-40.4			

Standard pressure surface (mb)	YUCCA FLAT, NEV. (882 MB.)						YUMA, ARIZ. (995 MB.)					
	Number of observations	Dynamic height	Temperature	Relative humidity	Wind Direction	Wind Speed	Number of observations	Dynamic height	Temperature	Relative humidity	Wind Direction	Wind Speed
SURFACE	30	1,196	5.5	43	346	3.5	30	131	17.1	29	329	1.0
1,000--	30	145					30	86				
950----	30	572					30	534	22.6	20	284	5.6
900----	30	1,024					30	997	20.3	18	299	5.1
850----	30	1,500	13.1	24	338	5.1	30	1,486	17.3	16	306	3.7
800----	30	2,006	10.0	25	311	3.3	30	1,999	13.5	16	283	2.5
750----	30	2,533	6.9	26	294	4.7	30	2,539	9.4	18	264	2.7
700----	30	3,101	3.1	26	275	7.6	30	3,105	5.5	18	272	5.2
650----	30	3,686	- 1.1	26	284	9.1	30	3,710	1.8	17	272	8.5
600----	30	4,329	- 5.1		284	12.0	30	4,347	- 2.2	15	285	11.9
550----	30	4,992	-10.0		286	16.9	30	5,031	- 7.3	14	285	13.8
500----	30	5,734	-15.1		286	22.3	30	5,767	-12.9	17	282	15.7
450----	30	6,509	-21.1		282	23.7	30	6,562	-19.2	22	286	17.7
400----	30	7,381	-27.8		281	25.6	30	7,425	-26.2	26	286	22.0
350----	30	8,327	-35.0		284	28.8	30	8,375	-33.8	29	286	27.6
300----	30	9,383	-43.4		288	36.1	30	9,437	-41.9		289	32.4
250----	30	10,586	-52.4		290	38.9	30	10,647	-51.3		288	35.8
200----	30	12,001	-59.4		289	42.6	30	12,066	-59.2		284	42.6
175----	30	12,836	-59.8		289	43.9	30	12,901	-59.9		282	43.5
150----	29	13,793	-59.7		289	40.2	30	13,862	-60.9		279	43.1
125----	29	14,929	-61.6		290	36.5	30	14,989	-63.5		278	36.9
100----	28	16,298	-62.9		293	27.4	27	16,342	-66.1		276	28.4
80-----	26	17,668	-63.8		297	17.3	26	17,689	-66.8		278	18.5
70-----	26	18,487	-62.4		309	10.9	22	18,506	-65.5		294	15.3
60-----	26	19,444	-61.1		316	6.8	18	19,440	-64.2		304	14.0
50-----	26	20,581	-59.2		334	2.9	16	20,565	-61.3		311	6.6
40-----	21	21,993	-56.9		42	1.9	16	21,964	-57.3		319	3.1
30-----	18	23,822	-53.6		277	2.7	15	23,798	-54.0		287	4.7
25-----	18	25,000	-51.5		262	2.9	15	24,974	-52.0		280	6.4
20-----	16	26,452	-49.0		265	8.7	15	26,428	-49.4		277	8.4
15-----	7	28,396	-46.1				13	28,346	-45.5		270	12.0

Note: All observations scheduled at 1200, G. C T Pressures shown under station names are the average monthly station pressures for the month of record, corrected to the height of the floors of the instrument shelters used for rawinsonde purposes. "Number of observations" refers to those of dynamic height only. Although the number of temperature observations at any given pressure surface is usually the same as for height, it is possible for temperature to be missing for one or more pressure surfaces of some observations. Relative humidity averages are limited to those observations with temperatures warmer than -40°C Observations of wind speed and direction are sometimes lost due to limiting angles, i. e., elevation angles less than 6° above the horizon, or any obstruction above the horizon.

The temperature and wind values are based on 15 or more observations at the surface or 5 observations at a standard pressure level for temperature and 10 for wind. Relative humidity data are not published for standard pressure surfaces for which less than 16 observations are available.

Relative humidity data are computed and expressed on the basis of vapor pressure over water Unless otherwise indicated, they are obtained from lithium chloride hygristors.

These average values for standard pressure surfaces were obtained by rawinsondes; dynamic height (geopotential) in units of .98 dynamic meter, temperature in degrees Celsius, relative humidity in percent, and resultant winds in degrees and knots.

SOLAR RADIATION DATA

Solar radiation intensities, tabulated in langleys per minute on a surface normal to the direction of the sun.

APRIL 1962

Sun's zenith distance

ALBUQUERQUE, N. MEX.

Date	A M 78.7°	A M 75.7°	A M 70.7°	A M 60.0°	*	P M 60.0°	P M 70.7°	P M 75.7°	P M 78.7°
Air mass	4.19	3.35	2.51	1.67	*	1.67	2.51	3.35	4.19
Apr.									
1	0.94	1.05	1.16	[illegible]	1.45	1.22	1.07	0.95	0.83
2	.81	.92	1.05	1.25	----	1.18	----	----	----
3	.75	.86	1.01	1.18	1.39	1.20	(.98)	(.74)	----
4	----		----	----	1.33	----	----	(.67)	----
[illegible]	----	.79	.98	1.16	----	----	----	----	----
[illegible]		.89	1.01	1.21	----	----	----	----	----
11	[illegible]	1.03	1.13	1.26	1.39	1.20	1.04	.91	.80
12	[illegible]	1.03	1.12	1.23	1.43	1.24	----	----	.81
13	.94	1.03	1.15	1.26	1.43	1.28	1.13	.99	.89
14	----	----	----	1.24	1.41	----	----	----	----
15	.90	.98	1.10	1.24	1.39	1.24	1.06	.92	.82
17	----	----	----	----	----	1.12	----	----	----
18	.65	.75	.87	1.06	1.29	----	.93	----	----
19	(.68)	(.68)	(.88)	----	(1.19)	----	----	----	----
21	.74	.84	.97	1.11	1.22	(.89)	----	----	----
22	.67	.76	.89	1.04	----	----	----	----	----
23	.83	.94	1.05	1.22	1.33	1.15	.98	.87	.79
24	.92	1.00	1.13	1.27	1.43	1.27	1.12	1.01	----
25	.90	.99	1.08	(1.19)	----	----	----	----	----
27	.89	.97	1.09	1.21	(1.39)	(1.12)	(.90)	----	----
28	----	.95	----	----	----	----	----	----	----
29	----	.92	1.05	1.19	----	----	----	----	----
30	.72	.80	.93	[illegible]	1.47	1.24	1.07	.96	.85
Averages	0.83	0.92	1.04	1.20	1.38	1.21	1.05	0.94	0.83

BLUE HILL OBS., MASS.

Date	A M 78.7°	A M 75.7°	A M 70.7°	A M 60.0°	*	P M 60.0°	P M 70.7°	P M 75.7°	P M 78.7°
Air mass	4.89	3.92	2.94	1.96	*	1.96	2.94	3.92	4.89
Apr.									
2	0.74	0.93	1.04	1.20	----	1.17	0.99	0.84	0.75
3	.88	.98	1.08	1.21	----	----	----	----	----
4	.78	.88	1.04	1.23	1.41	1.21	.99	.83	.70
5	.50	.60	.76	.95	1.24	.94	.70	.54	.43
6	.48	.55	.70	----	----	----	----	----	----
9	.84	.93	1.04	1.22	----	----	----	----	----
15	.72	.82	.91	1.07	----	----	----	----	----
16	----	----	----	1.20	1.45	----	----	----	----
18	[illegible]	[illegible]	1.03	1.22	----	----	----	----	----
19	[illegible]	[illegible]	.82	----	----	----	----	----	----
[illegible]	----	----	----	----	----	----	----	.77	.65
21	.79	.91	1.05	1.21	----	1.23	1.04	.90	.77
24	.96	1.06	1.21	1.33	----	1.27	1.11	.95	.87
27	.38	.59	.69	.88	1.21	.87	.65	.48	.36
Averages	0.70	0.82	0.95	1.16	1.33	1.12	0.91	0.76	0.65

HILO, HAWAII

Date	A M 78.7°	A M 75.7°	A M 70.7°	A M 60.0°	*	P M 60.0°	P M 70.7°	P M 75.7°	P M 78.7°
Air mass									
Apr.									
10	----	----	0.93	----	----	----	----	----	----
11	----	----	.83	1.08	1.32	----	----	----	----
14	----	0.80	----	----	1.32	----	0.91	0.82	0.68
15	----	.78	.88	1.08	----	1.08	.93	----	----
17	----	----	----	1.13	----	----	----	----	----
29	----	.88	----	----	----	----	----	----	----
30	0.76	.86	----	1.13	----	----	----	----	----
Averages	0.76	0.83	0.88	1.11	1.32	1.08	0.92	0.82	0.68

Sun's zenith distance

TUCSON, ARIZ.

Date	A M 78.7°	A M 75.7°	A M 70.7°	A M 60.0°	*	P.M. 60.0°	P.M. 70.7°	P.M. 75.7°	P.M. 78.7°
Air mass	4.56	3.65	2.74	1.83	*	1.83	2.74	3.65	4.56
Apr.									
1	0.81	0.92	1.06	----	----	----	----	1.02	----
2	.83	.94	1.10	----	----	----	----	.92	0.81
4	.74	.84	.99	----	----	----	----	----	----
5	.68	.78	.90	----	----	----	----	----	----
9	.76	.88	1.01	----	----	----	----	.90	.76
10	.69	.80	.95	----	----	----	----	.84	.72
11	.72	.84	.97	----	----	----	----	----	----
12	.84	.94	1.08	----	----	----	----	----	.78
13	.81	.92	1.03	----	----	----	----	----	----
15	----	----	.97	1.17	----	----	----	.75	.63
21	.58	.71	.85	1.10	----	----	----	.73	.62
22	.73	.85	.98	1.17	----	----	----	.82	.70
23	.69	.81	.94	----	----	----	----	.83	.68
24	----	.78	.94	1.12	----	----	----	----	----
26	.81	.90	----	----	----	----	----	----	----
27	.65	.76	----	----	----	----	----	----	----
28	.85	.96	1.06	1.22	----	----	----	----	----
29	.75	.85	.98	1.13	----	----	----	.98	----
30	.60	.71	.87	----	----	----	0.92	.78	.67
Averages	0.74	0.84	0.98	1.15	----	----	0.92	0.86	0.71

MAUNA LOA OBS., HAWAII

Date	A M 78.7°	A M 75.7°	A M 70.7°	A M 60.0°	*	P.M. 60.0°	P.M. 70.7°	P.M. 75.7°	P.M. 78.7°
Air mass	3.36	2.69	2.01	1.34	*	1.34	2.01	2.69	3.36
Apr.									
1	1.17	1.25	1.36	1.49	1.64	1.49	1.38	1.28	1.20
2	1.25	1.33	1.43	1.55	1.68	1.55	1.43	1.34	1.25
3	1.26	1.34	1.43	1.55	1.68	1.53	1.41	1.31	1.24
4	1.30	1.37	1.44	1.55	1.68	1.51	1.36	1.26	1.16
5	1.30	1.38	1.46	1.56	1.60	----	----	----	----
8	1.23	1.31	1.41	1.51	----	----	----	----	----
9	1.13	1.22	1.31	1.44	----	----	----	----	----
10	1.18	1.27	1.37	1.49	----	----	----	----	----
11	1.20	1.28	1.38	1.50	1.61	----	----	----	----
13	----	----	----	----	1.60	----	----	1.22	1.13
14	1.21	1.29	1.40	1.51	1.66	1.46	1.35	1.25	1.17
15	1.22	1.31	1.41	1.53	1.63	----	----	----	----
16	1.24	1.32	1.43	1.53	----	----	----	----	----
17	1.24	1.32	1.41	1.53	----	----	----	----	----
19	1.21	1.28	1.37	1.51	----	----	----	----	----
20	1.20	1.28	1.37	1.48	----	----	----	----	----
27	1.15	1.25	1.34	1.44	----	----	----	----	----
29	1.15	1.24	1.33	1.45	1.62	1.47	1.36	1.27	1.19
30	1.20	1.28	1.38	1.49	1.60	----	----	----	----
Averages	1.21	1.30	1.39	1.51	1.64	1.50	1.38	1.28	1.19

GUAM, M. I.

Date	A M 78.7°	A M 75.7°	A M 70.7°	A M 60.0°	*	P.M. 60.0°	P.M. 70.7°	P.M. 75.7°	P.M. 78.7°
Air mass	4.92	3.93	2.95	1.97	*	1.97	2.95	3.93	4.92
	No observation due to cloudiness.								

( ) Clouds present
* Values corresponding to true solar noon

Langley is the unit used to denote one gram calorie per square centimeter. An explanation of the formula used in computing the air mass values for each station listed above appears in the February 1957 issue, Vol. 8, No. 2, page 63, of this publication.

SOLAR RADIATION DATA

Daily totals and weekly averages of solar radiation (direct and diffuse) received on a horizontal surface, tabulated in langleys.

1962	Albuquerque, N.Mex.	Ames, Iowa	Annette, Alaska	Apalachicola, Fla.	Astoria, Oreg.	Barrow, Alaska	Bethel, Alaska	Bismarck, N. Dak.	Blue Hill Obs.,Mass.	Boise, Idaho	Boston, Mass.	Brownsville, Tex.	Canton Island, Pacific Area	Caribou, Maine	Charleston, S. C.	Cleveland, Ohio	Columbia, Mo.	Dodge City, Kans.	El Paso, Tex.
Apr. 2-----	---	372	264	683	140	357	429	566	473	555	459	492	667	301	673	477	450	574	659
Apr. 3-----	682	260	86	641	428	362	315	275	449	536	443	319	612	---	665	477	533	599	456
Apr. 4-----	520	198	253	530	152	376	484	588	592	581	574	123	472	576	645	371	138	49	583
Apr. 5-----	547	430	66	227	272	327	479	489	545	531	545	250	(605)	386	449	232	621	145	661
Apr. 6-----	527	338	215	190	43	264	296	574	494	450	489	360	648	476	153	294	560	---	532
Apr. 7-----	576	522	395	141	241	391	109	188	261	403	279	651	(626)	322	197	241	---	370	680
Apr. 8-----	602	134	411	664	229	354	479	449	---	252	311	665	616	154	603	506	177	581	655
Average-------	576	322	241	439	215	347	370	447	469	473	443	409	(606)	369	484	371	413	386	604
Apr. 9-----	375	576	265	665	389	326	200	383	470	395	478	---	539	---	649	192	576	490	659
Apr. 10-----	495	448	504	---	418	402	252	416	---	614	604	596	613	95	642	419	239	129	721
Apr. 11-----	710	128	86	495	587	442	553	127	---	608	492	467	595	245	506	184	298	623	681
Apr. 12-----	716	117	163	174	517	432	584	381	---	586	244	509	561	597	396	124	288	626	708
Apr. 13-----	720	582	174	687	424	425	554	558	67	508	67	632	655	157	683	87	698	643	710
Apr. 14-----	707	650	406	698	346	326	537	614	296	513	245	418	601	363	714	341	299	580	702
Apr. 15-----	705	652	161	621	567	368	564	607	344	541	389	570	375	489	313	125	714	672	696
Average-------	633	450	252	557	464	389	464	441	294	538	360	532	563	324	558	210	445	538	697
Apr. 16-----	600	266	108	738	619	485	558	565	449	617	444	583	631	390	724	553	457	466	680
Apr. 17-----	557	637	124	701	629	498	443	622	334	636	311	683	596	575	684	407	656	656	664
Apr. 18-----	695	627	525	670	636	436	456	618	503	422	494	600	(552)	506	694	543	664	657	686
Apr. 19-----	631	651	505	631	226	---	609	600	324	577	407	631	626	649	677	521	676	624	681
Apr. 20-----	682	98	389	662	205	---	603	528	606	329	600	678	595	658	643	513	468	---	582
Apr. 21-----	723	516	174	669	525	518	658	281	656	666	636	494	193	---	716	558	469	570	699
Apr. 22-----	571	496	274	706	486	---	318	637	443	668	451	474	(633)	198	721	421	120	650	750
Average-------	637	470	300	682	475	484	521	550	474	559	478	592	(546)	496	694	502	501	604	678
Apr. 23-----	734	649	288	704	520	---	543	644	493	601	484	373	647	53	683	428	663	710	740
Apr. 24-----	761	631	115	637	433	---	226	634	537	468	595	587	(641)	395	465	607	683	729	(745)
Apr. 25-----	551	642	343	573	544	---	391	617	588	599	543	606	663	570	451	578	684	553	465
Apr. 26-----	423	635	238	651	330	360	497	114	641	626	626	427	647	662	590	622	643	426	502
Apr. 27-----	739	228	568	700	236	444	387	502	614	89	579	595	636	240	600	494	377	324	740
Apr. 28-----	657	120	578	613	383	498	695	473	614	472	530	664	621	249	615	246	365	451	753
Apr. 29-----	711	328	319	692	535	572	726	415	215	695	217	640	622	511	532	265	637	---	723
Average-------	654	462	350	653	426	468	495	486	529	507	510	556	(640)	383	562	463	579	532	(667)
Apr. 30-----	796	162	262	685	187	508	715	600	100	672	107	617	635	---	474	531	269	299	775
May 1-----	791	597	465	666	227	457	691	565	139	665	115	100	(629)	---	680	290	424	574	763
May 2-----	783	663	448	516	355	531	593	677	59	477	67	109	(618)	326	660	280	686	522	744
May 3-----	775	675	392	727	615	403	548	625	105	412	73	336	(612)	102	700	291	515	519	746
May 4-----	702	627	500	534	629	463	334	362	284	719	172	509	(648)	112	532	657	674	508	729
May 5-----	765	544	598	545	572	545	691	578	338	637	318	727	(619)	123	449	608	585	526	734
May 6-----	782	619	645	694	---	638	597	---	329	510	302	730	(622)	164	702	214	449	552	743
Average-------	771	555	473	624	431	507	596	568	194	585	165	447	(626)	165	600	410	515	500	748

1962	Ely, Nev.	Fairbanks, Alaska	Flaming Gorge, Utah	Fort Worth, Tex.	Fresno, Calif.	Gainesville, Fla.	Glasgow, Mont.	Grand Junction,Colo.	Great Falls, Mont.	Greensboro, N. C.	Griffin, Ga.	Cape Hatteras, N.C.	Hilo, Hawaii	Indianapolis, Ind.	Ithaca, New York	Lake Charles, La.	Lander, Wyo.	Laramie, Wyo.	Las Vegas, Nev.
Apr. 2-----	592	270	509	633	507	704	418	563	285	492	726	(637)	561	423	556	559	519	448	546
Apr. 3-----	454	209	449	292	503	705	348	619	496	580	711	(622)	607	549	541	556	444	380	607
Apr. 4-----	566	277	215	46	485	579	544	422	516	610	688	---	597	216	511	191	421	474	628
Apr. 5-----	559	385	308	108	481	226	411	508	413	488	160	---	600	139	509	301	241	416	649
Apr. 6-----	602	145	606	129	500	369	457	663	256	245	219	---	548	484	226	299	494	565	658
Apr. 7-----	500	136	202	576	491	150	121	415	161	361	283	---	392	351	159	224	463	145	670
Apr. 8-----	299	443	291	581	536	582	411	374	384	424	679	453	656	517	305	569	599	464	671
Average-------	510	266	369	338	501	474	387	509	359	457	495	---	566	383	401	386	454	413	633
Apr. 9-----	646	349	471	350	558	634	297	---	206	587	572	611	462	574	166	390	666	570	679
Apr. 10-----	702	---	539	428	537	687	409	628	406	271	694	659	586	505	492	189	410	437	708
Apr. 11-----	682	332	684	(102)	550	510	361	686	323	148	233	245	663	169	385	218	552	447	705
Apr. 12-----	666	350	676	639	525	532	368	699	504	84	217	---	430	394	172	476	590	642	701
Apr. 13-----	584	375	621	658	(546)	635	510	685	474	655	765	592	429	171	49	623	451	553	688
Apr. 14-----	527	240	636	646	527	721	580	646	567	704	736	716	640	612	184	617	595	581	656
Apr. 15-----	532	322	611	652	512	632	395	665	468	524	634	128	583	362	292	390	569	592	618
Average-------	620	328	605	(496)	(537)	622	417	668	421	425	550	492	542	398	249	415	548	546	679
Apr. 16-----	700	310	601	456	582	730	613	516	603	692	773	---	636	653	73	626	615	523	---
Apr. 17-----	709	339	624	258	573	703	599	713	600	618	424	704	602	312	766	564	618	630	706
Apr. 18-----	592	485	651	(490)	459	644	518	708	554	589	633	682	609	645	226	---	607	617	683
Apr. 19-----	709	513	438	628	448	661	548	636	550	640	704	653	241	130	305	---	606	541	684
Apr. 20-----	201	503	641	672	620	628	427	696	174	682	688	634	336	638	444	598	613	402	699
Apr. 21-----	732	531	(556)	552	602	703	544	704	468	714	776	703	339	593	631	---	214	370	706
Apr. 22-----	734	537	675	(178)	597	705	513	700	554	699	769	738	495	282	433	516	657	571	717
Average-------	625	460	(598)	(462)	554	682	537	668	500	662	681	685	465	465	411	576	561	522	699
Apr. 23-----	732	543	727	---	572	700	569	736	588	432	639	675	---	618	182	403	673	639	702
Apr. 24-----	485	488	622	(228)	515	710	552	712	465	734	238	745	437	649	613	330	511	647	567
Apr. 25-----	333	520	577	478	567	566	419	406	482	656	482	698	398	638	610	387	490	543	597
Apr. 26-----	739	299	282	418	590	490	438	440	566	519	546	695	590	626	559	517	261	191	699
Apr. 27-----	553	442	687	454	428	571	587	749	290	669	443	696	547	(517)	545	130	612	667	654
Apr. 28-----	726	319	194	692	593	628	293	586	396	568	341	646	170	308	482	---	442	464	710
Apr. 29-----	669	372	368	664	630	684	365	492	389	497	599	510	485	315	335	---	470	354	742
Average-------	605	426	494	(489)	556	621	460	589	454	582	470	666	438	(524)	475	353	494	501	668
Apr. 30-----	772	577	766	209	612	587	555	---	651	475	743	622	(618)	407	433	---	706	583	752
May 1-----	618	610	572	744	609	638	573	706	473	659	698	682	595	331	158	447	624	634	670
May 2-----	621	601	553	732	582	632	579	739	535	604	785	673	227	315	166	628	606	526	699
May 3-----	675	602	658	707	585	603	650	738	541	754	742	536	231	678	144	442	657	547	763
May 4-----	523	513	357	673	599	470	650	583	590	695	713	680	383	675	539	636	474	425	746
May 5-----	424	559	491	692	598	580	671	694	527	727	684	739	508	584	601	635	547	430	760
May 6-----	674	307	588	(677)	560	709	322	740	382	729	766	728	345	309	143	641	519	431	770
Average-------	615	538	569	(633)	592	603	572	700	528	664	733	665	(415)	471	312	572	590	511	737

Note.--Langley is the unit used to denote one gram calorie per square centimeter.
Values in parentheses are interpolated.

SOLAR RADIATION DATA

Daily totals and weekly averages of solar radiation (direct and diffuse) received on a horizontal surface, tabulated in langleys.

1962	Little Rock, Ark.	Los Angeles, Calif.	Los Angeles, Calif. (Urban)	Madison, Wis.	Manhattan, Kans.	Matanuska, Alaska	Mauna Loa Obs., Hawaii	Medford, Oreg.	Miami, Fla.	Midland, Tex.	Nashville, Tenn.	Newport, R. I.	North Omaha, Nebr.	Oak Ridge, Tenn.	Oklahoma City, Okla.	Page, Ariz.	Phoenix, Ariz.	Prosser, Wash.	Pullman, Wash.	Rapid City, S. Dak.	Riverside, Calif.	St. Cloud, Minn.	Salt Lake City, Utah	San Antonio, Tex.	Santa Maria, Calif.	S. Ste. Marie, Mich.	Sayville, N. Y.	Seattle, Wash.	Seattle-Tacoma, Wash.	Shreveport, La.	Spokane, Wash.	State College, Pa.	Stillwater, Okla.	Swan Island, W. I.	Tampa, Fla.	Tucson, Ariz.	Washington, D. C. (Obs & Test Dev Ctr.)
Apr. 2	631	---	353	527	630	341	754	451	330	567	244	529	598	325	607	461	---	575	568	567	418	611	511	590	299	587	483	209	222	586	535	624	534	448	671	643	410
Apr. 3	605	(271)	172	538	364	248	758	515	612	373	433	495	323	535	480	555	---	565	574	420	264	446	437	92	---	550	537	224	272	528	541	500	423	386	671	612	402
Apr. 4	223	510	299	83	236	331	762	462	551	195	575	574	531	561	175	605	---	394	438	594	413	200	605	80	---	543	521	84	123	155	375	574	91	514	588	633	602
Apr. 5	173	550	579	133	606	429	683	506	361	408	128	530	612	204	127	611	---	480	530	344	614	344	538	438	---	256	497	243	262	68	469	547	95	574	442	623	527
Apr. 6	357	604	598	576	380	378	593	500	620	174	46	500	412	473	216	616	644	281	92	545	642	286	606	266	---	235	393	---	96	137	214	165	183	576	270	636	173
Apr. 7	571	583	555	330	505	382	412	355	512	531	439	239	397	186	543	570	620	358	495	145	577	436	54	536	---	100	90	224	365	341	385	172	547	402	61	617	321
Apr. 8	178	(599)	588	240	421	448	401	273	431	580	441	176	179	51	488	563	609	299	257	612	629	70	267	610	646	212	146	307	416	325	543	237	493	462	518	639	105
Average	391	(520)	449	347	449	365	623	437	488	404	329	435	436	333	376	569	---	422	422	461	508	342	431	373	---	355	381	215	251	306	437	403	338	480	460	629	363
Apr. 9	326	(384)	372	600	367	447	509	511	(519)	604	533	472	520	594	285	523	636	474	311	451	525	627	574	388	669	131	357	239	284	499	423	281	269	486	548	657	273
Apr. 10	204	(523)	460	652	292	232	588	498	520	616	85	596	419	300	0	629	635	609	635	409	597	421	562	354	642	548	538	483	464	259	525	516	53	556	639	650	645
Apr. 11	314	(598)	631	457	415	180	627	564	557	423	103	282	493	86	271	652	659	573	621	459	678	454	662	231	667	486	104	503	519	264	593	90	286	550	---	658	40
Apr. 12	633	(630)	646	84	599	440	698	597	576	628	239	203	567	251	428	653	674	549	584	610	649	384	676	656	654	558	94	376	497	579	503	45	559	547	571	666	45
Apr. 13	507	(602)	632	694	658	226	638	561	(427)	633	658	104	617	253	578	647	659	402	485	532	641	526	628	636	654	155	63	402	400	515	451	203	576	552	524	663	---
Apr. 14	621	(567)	678	658	640	182	763	562	647	601	493	334	628	584	566	631	635	503	581	615	644	658	632	646	558	410	287	209	450	570	518	367	493	539	678	629	604
Apr. 15	723	(611)	622	706	687	325	685	609	598	609	622	430	666	528	656	620	637	573	316	597	671	656	569	537	642	568	257	484	643	581	518	483	507	560	525	652	553
Average	476	(559)	577	550	523	290	644	558	(549)	588	391	346	559	371	398	622	648	526	505	525	629	532	614	492	641	408	243	385	465	467	504	283	392	541	581	654	360
Apr. 16	672	642	628	655	337	289	707	588	592	600	634	435	506	638	545	550	524	652	677	624	662	301	677	217	695	670	438	587	598	576	631	515	473	540	716	537	517
Apr. 17	125	634	634	660	695	352	691	624	610	579	303	334	650	363	289	634	611	627	670	623	685	633	676	555	614	158	493	591	621	235	636	668	395	498	706	658	629
Apr. 18	728	---	596	707	664	227	550	531	501	392	595	578	636	490	626	598	578	608	648	624	637	660	653	306	654	411	490	589	619	439	627	313	589	438	651	650	482
Apr. 19	647	(583)	504	712	663	460	645	191	580	563	666	518	445	644	629	586	538	469	429	566	569	665	643	639	667	230	432	443	398	490	285	376	539	241	651	620	521
Apr. 20	662	684	696	714	601	426	(393)	499	553	575	460	429	519	668	592	659	665	657	629	446	714	597	---	609	734	665	448	253	304	535	552	524	525	228	618	696	162
Apr. 21	629	662	680	422	589	303	464	612	401	579	641	627	537	659	572	644	665	653	498	145	725	284	321	375	740	164	603	400	384	360	568	680	542	147	599	701	697
Apr. 22	488	671	692	284	584	548	295	655	627	608	573	417	594	589	143	663	662	669	675	651	709	610	706	112	735	101	443	---	458	398	655	494	182	531	687	693	612
Average	564	(646)	633	594	590	372	(535)	529	552	556	553	477	555	579	485	619	606	619	604	526	672	536	613	402	691	343	478	477	483	433	565	510	464	375	661	651	517
Apr. 23	140	652	664	695	703	485	393	648	570	645	246	462	646	318	196	667	660	531	687	647	685	651	727	247	699	700	470	---	495	204	545	563	478	364	679	682	367
Apr. 24	550	290	---	(616)	708	360	383	(430)	681	627	633	642	668	633	409	658	640	391	486	654	478	648	663	577	556	667	623	---	296	87	506	710	508	375	597	629	700
Apr. 25	602	422	193	674	713	569	360	680	567	550	582	574	660	380	648	260	612	677	682	539	---	650	275	560	746	603	543	---	608	464	614	625	569	520	657	496	665
Apr. 26	514	613	640	668	674	199	415	571	497	468	572	616	642	546	553	541	584	384	456	254	723	609	580	301	751	612	579	---	248	363	---	657	578	502	656	574	659
Apr. 27	196	629	650	(576)	198	287	568	440	580	456	---	612	120	495	282	654	619	383	158	426	704	83	633	590	739	---	566	---	271	26	164	564	175	547	638	659	650
Apr. 28	414	372	131	142	153	402	716	357	648	658	327	595	314	240	551	676	581	568	562	390	264	577	252	671	667	296	567	---	450	498	361	519	409	574	632	685	656
Apr. 29	634	(667)	(657)	241	456	518	777	617	541	650	320	434	222	429	674	622	689	578	515	365	686	134	727	581	782	145	321	---	601	348	522	340	625	549	637	686	376
Average	436	(521)	(489)	(516)	515	403	516	(535)	583	579	447	562	467	434	473	582	626	502	507	468	590	479	551	504	706	504	524	---	424	284	452	568	478	490	642	630	582
Apr. 30	256	677	694	166	272	491	667	338	630	647	342	126	366	357	280	735	711	490	603	440	757	586	748	398	750	385	98	---	243	125	557	525	113	---	660	711	606
May 1	442	681	706	253	513	589	610	346	664	675	359	187	585	439	718	658	656	431	574	643	663	664	644	262	742	105	140	239	299	412	463	355	659	---	599	715	167
May 2	677	668	683	696	701	606	627	578	556	612	641	74	668	466	706	708	701	677	574	625	749	649	729	677	742	155	63	324	502	505	584	101	642	---	665	707	80
May 3	660	(665)	676	597	690	---	---	284	557	658	623	215	651	558	607	685	694	372	222	520	723	640	698	604	737	610	458	324	520	499	218	667	541	589	666	680	656
May 4	---	649	686	521	668	---	785	695	487	658	531	382	644	434	675	665	710	588	609	584	744	607	708	625	720	706	624	514	687	464	686	732	623	623	475	689	611
May 5	657	645	690	170	665	---	787	653	352	575	687	484	---	630	596	692	698	618	513	566	762	616	713	653	737	102	625	413	552	453	587	669	591	632	411	660	710
May 6	486	664	723	631	621	---	441	469	591	530	659	373	667	584	512	699	663	210	202	593	771	651	671	638	673	746	404	241	226	430	167	286	570	440	594	646	577
Average	530	(664)	694	433	590	---	653	481	548	622	549	263	597	496	585	692	691	484	471	567	738	630	702	551	729	401	344	343	433	413	466	476	534	571	581	687	487

Note.--Langley is the unit used to denote one gram calorie per square centimeter.
Values in parentheses are interpolated.

TOTAL OZONE DATA

The total amount of ozone is expressed in 10^{-3} cm. at STP. These data are provisional values applicable to local noon, and are obtained from measurements with a Dobson ozone spectrophotometer using the sun or zenith sky as a light source (see explanation below).

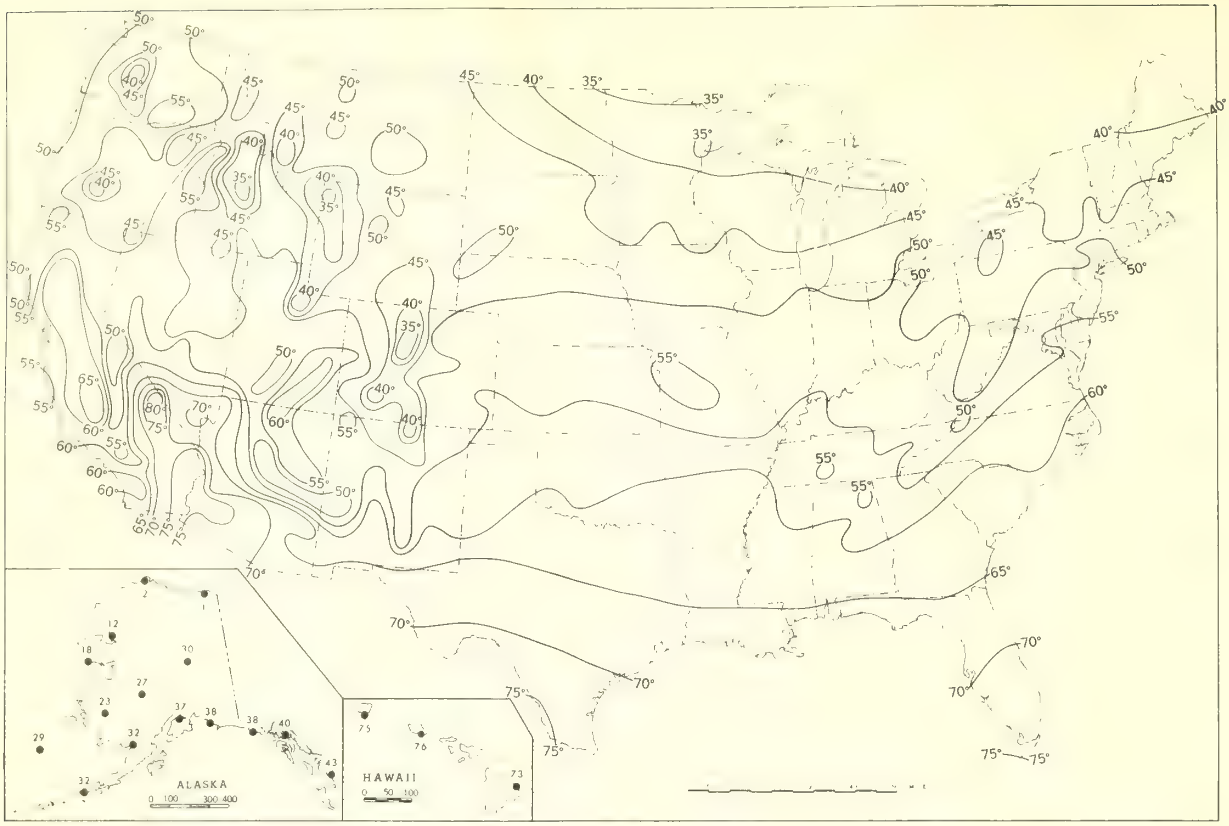
APRIL 1962

Station	Day of month																														
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31
Bismarck, N. Dak.	---	389	406	368	333	397	---	431	---	---	---	401	380	373	321	358	338	332	317	---	---	374	356	320	326	---	353	---	383	387	
Caribou, Maine	---	---	428	410	---	374	422	---	---	---	---	395	---	---	---	---	455	---	386	389	384	---	---	---	433	384	---	---	338	---	
Green Bay, Wis.	---	365	389	---	---	345	---	407	435	379	352	---	447	419	395	355	356	380	374	328	---	---	339	312	312	309	---	---	---	---	
Hallett, Antarctica	---	282	---	---	249	---	257	---	---	---	254	255	---	---	---	247	243	---	---	231	244	---	---	---	---	---	---	---	---	---	
Mauna Loa, Hawaii	300	298	304	306	302	296	---	297	301	298	299	---	298	293	300	293	294	---	302	303	---	---	---	---	---	---	294	---	311	311	
Nashville, Tenn.	---	---	---	385	---	---	369	399	396	---	---	---	---	382	437	374	347	348	374	377	311	315	---	---	---	326	318	---	---	---	
Sterling, Va.	---	*368	*441	395	*378	*428	---	---	*415	372	*374	---	439	400	445	463	410	416	422	---	359	399	*275	316	343	345	355	421	---	337	

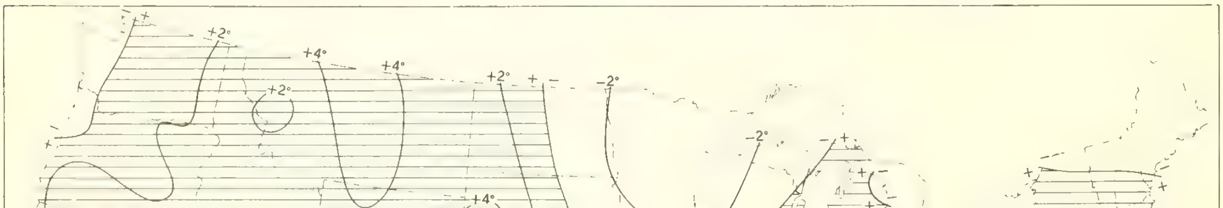
The spectrophotometer measures the total amount of ozone in the atmosphere, i.e., the amount contained in a vertical column of air extending from the ground to the top of the atmosphere in the vicinity of the station. The amount of ozone in this column is expressed in terms of thickness of a layer it would occupy at standard temperature and pressure.

The standard method of measurement is that on direct sun using A(3055Å and 3254Å) and D(3176Å and 3398Å) wavelength pairs. Observations made on the clear zenith sky are slightly less accurate, and are marked with a dagger (†). Observations made on zenith cloud are least reliable, and are marked with an asterisk (*). A detailed description of the spectrophotometer and observational procedures may be found in the "Observers' Handbook For the Ozone Spectrophotometer", Annals of the International Geophysical Year, Volume V, Pergaman Press, 1957.

Chart I. A. Average Temperature (°F.) at Surface, April 1962.



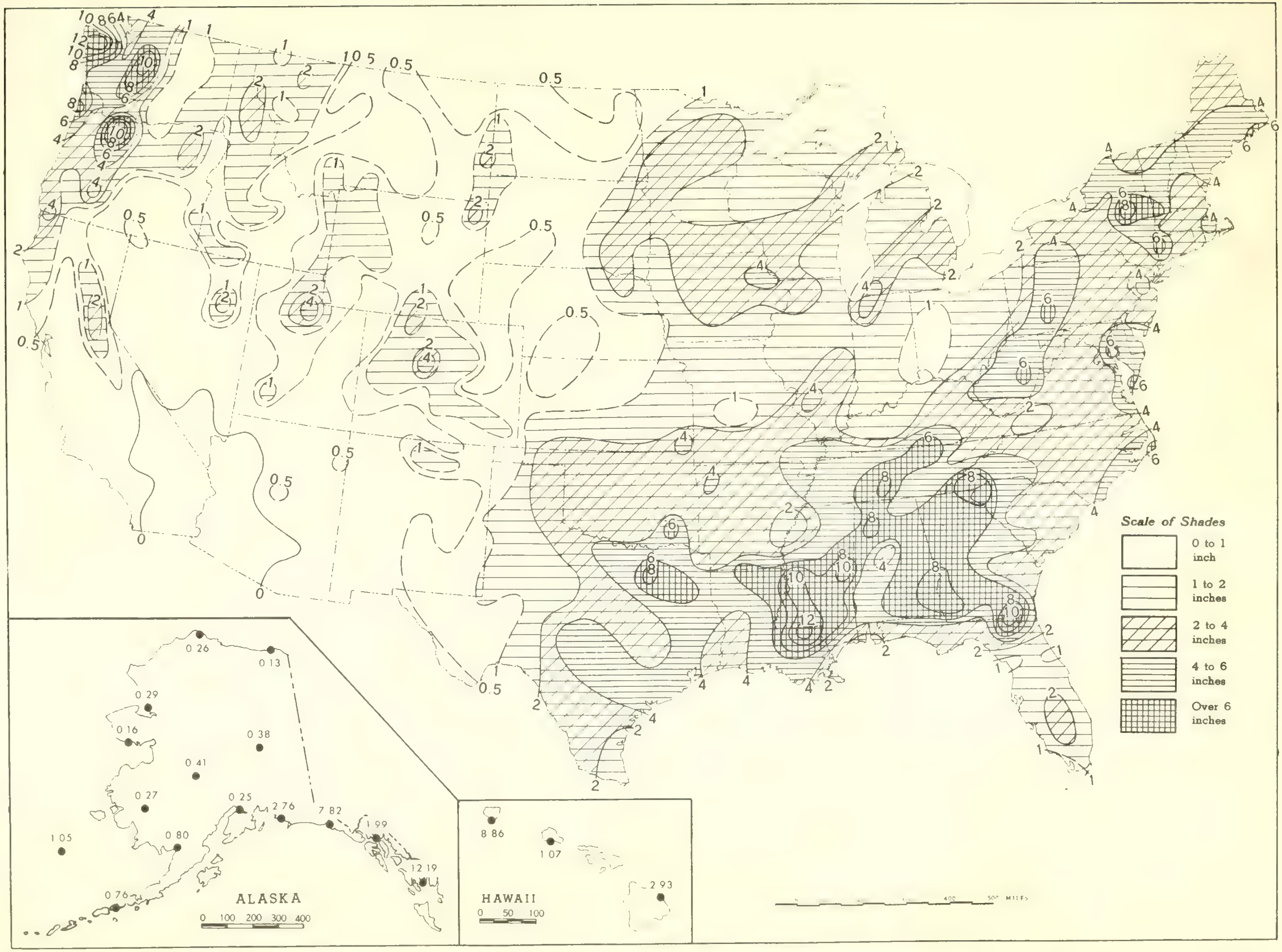
B. Departure of Average Temperature from Normal (°F.), April 1962.



A. Based on reports from over 870 Weather Bureau and cooperative stations. The monthly average is half the sum of the monthly average maximum and monthly average minimum, which are the average of the daily maxima and daily minima, respectively.

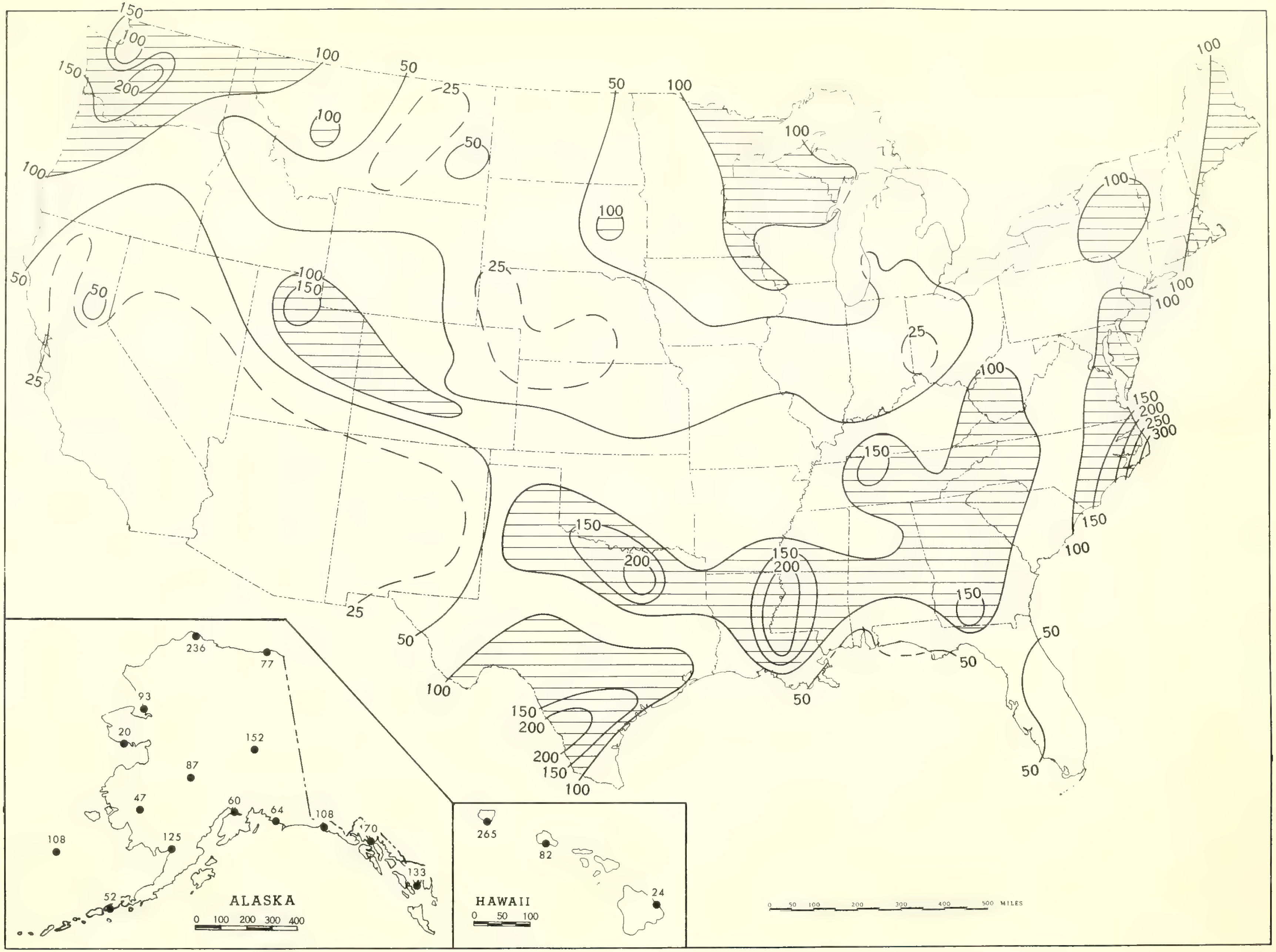
B. Departures from normal are based on the 30-yr. normals (1931-60) for first-order Weather Bureau stations.

Chart II. Total Precipitation (Inches), April 1962.



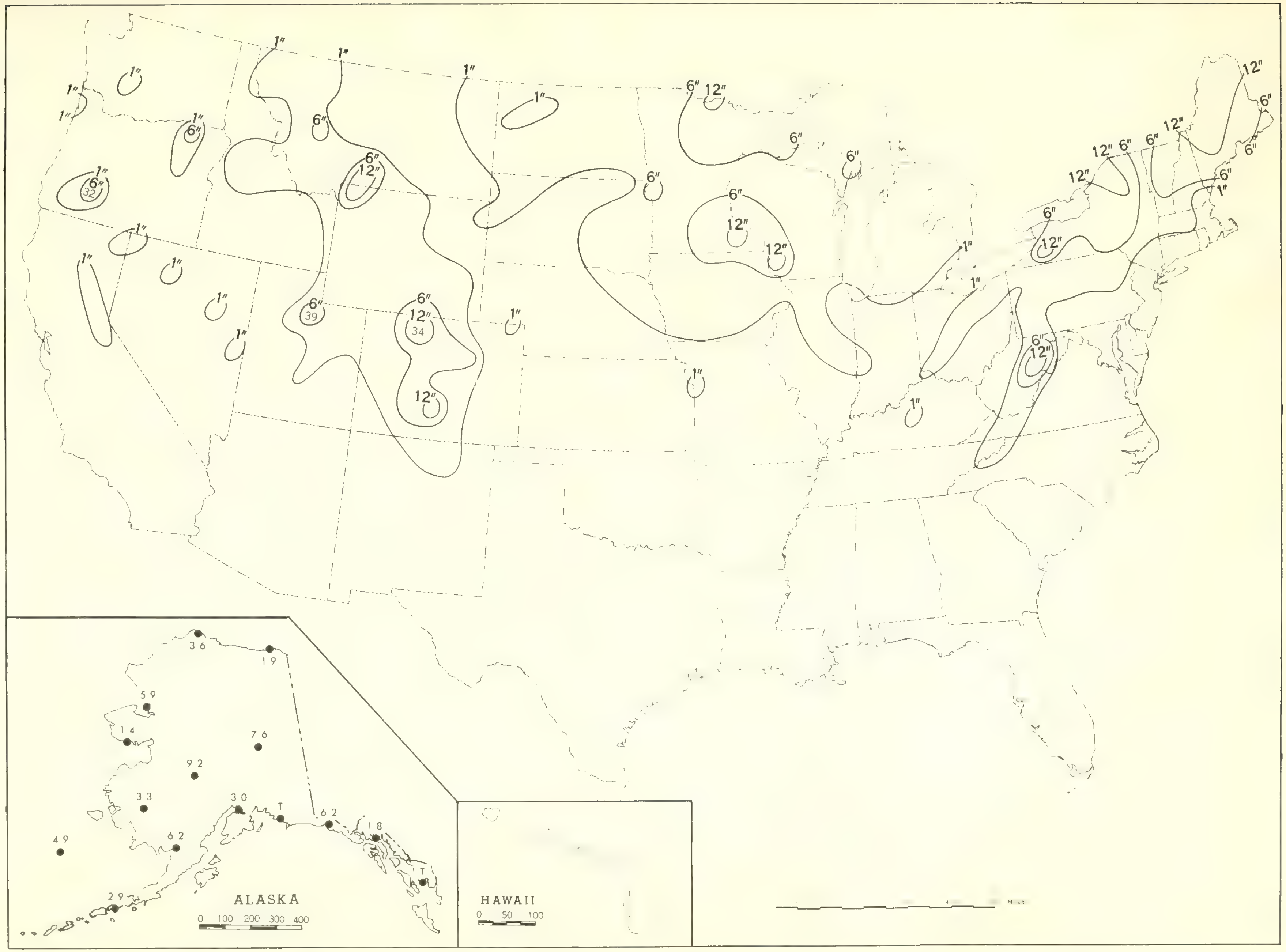
Based on daily precipitation records at about 870 Weather Bureau and cooperative stations.

Chart III. Percentage of Normal Precipitation, April 1962.



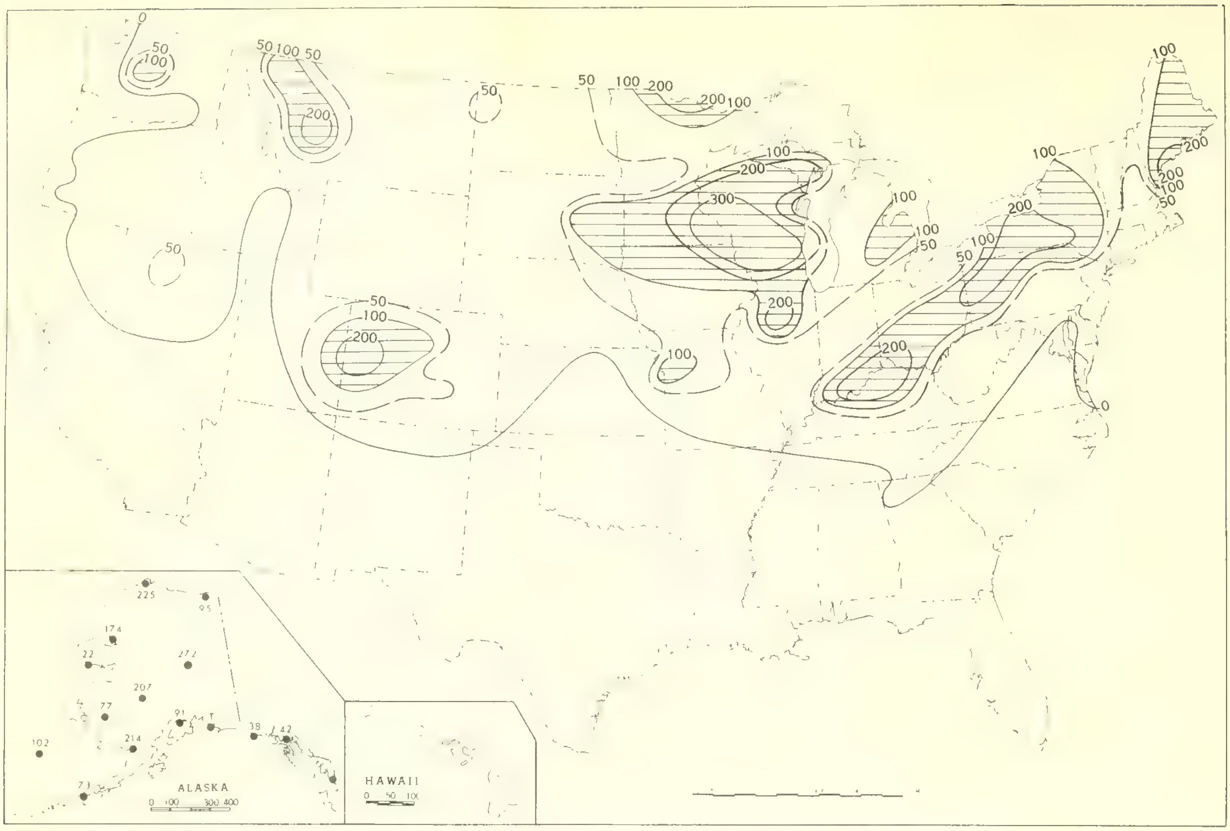
Normal monthly precipitation amounts are computed from 30-yr. normals (1931-60) for first-order Weather Bureau stations.

Chart IV. Total Snowfall (Inches), April 1962.

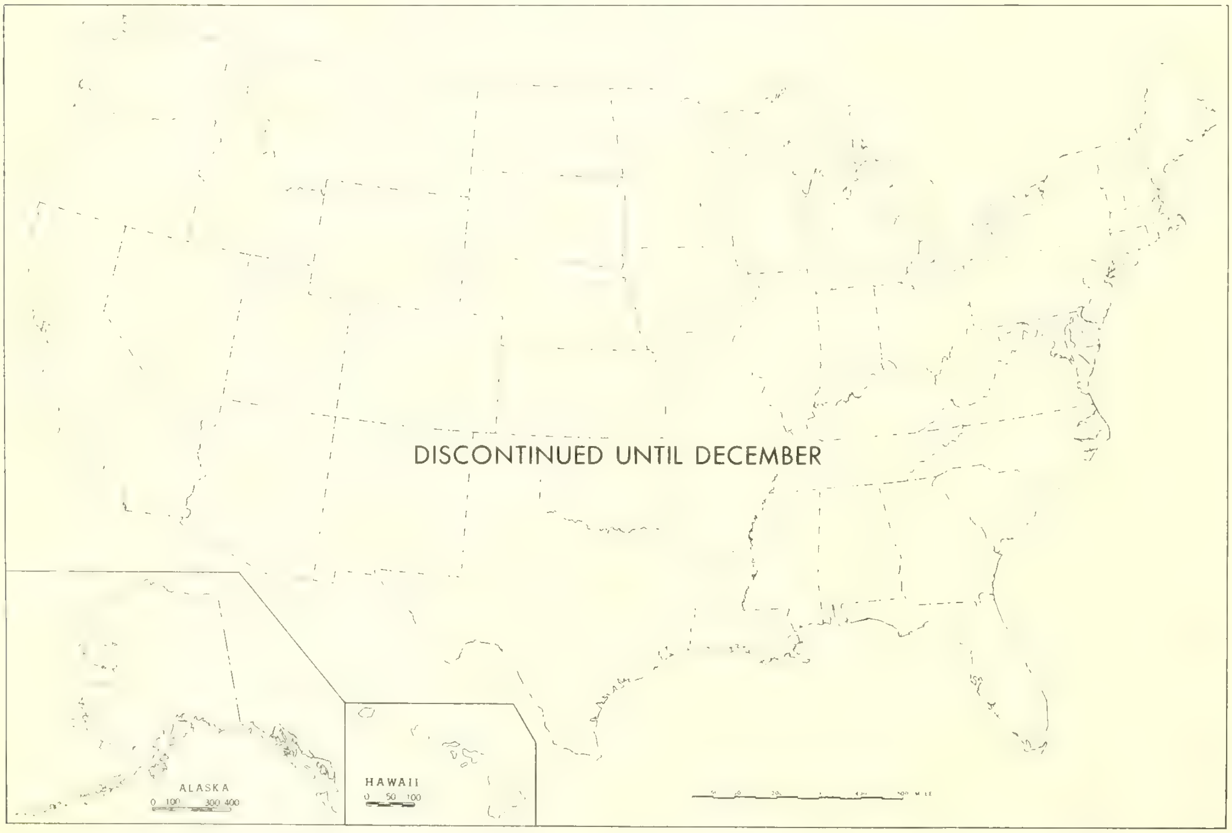


This is the total of unmelted snowfall recorded during the month at Weather Bureau and cooperative stations. This chart and Chart V are published only for the months of November through April although of course there is some snow at higher elevations, particularly in the far West, earlier and later in the year.

Chart V. A. Percentage of Mean Monthly Snowfall, April 1962.

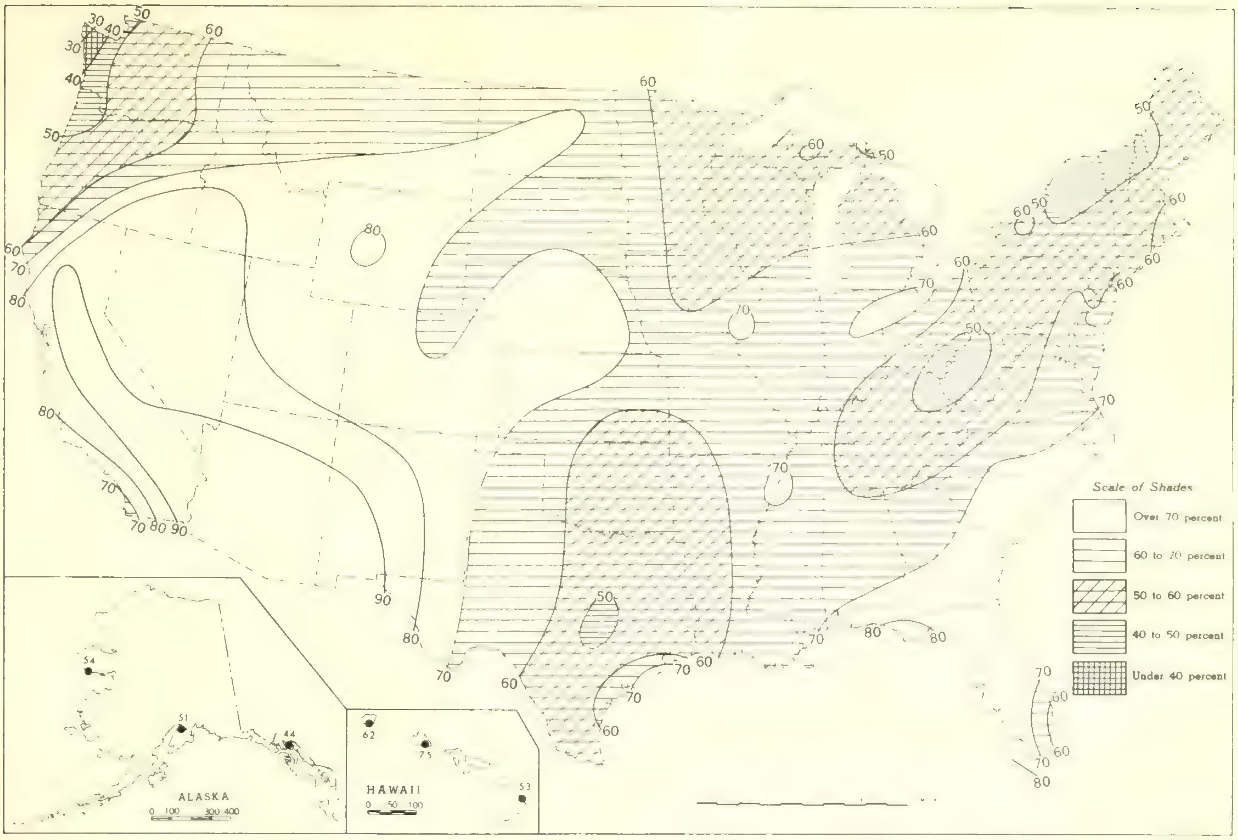


B. Depth of Snow on Ground (Inches).

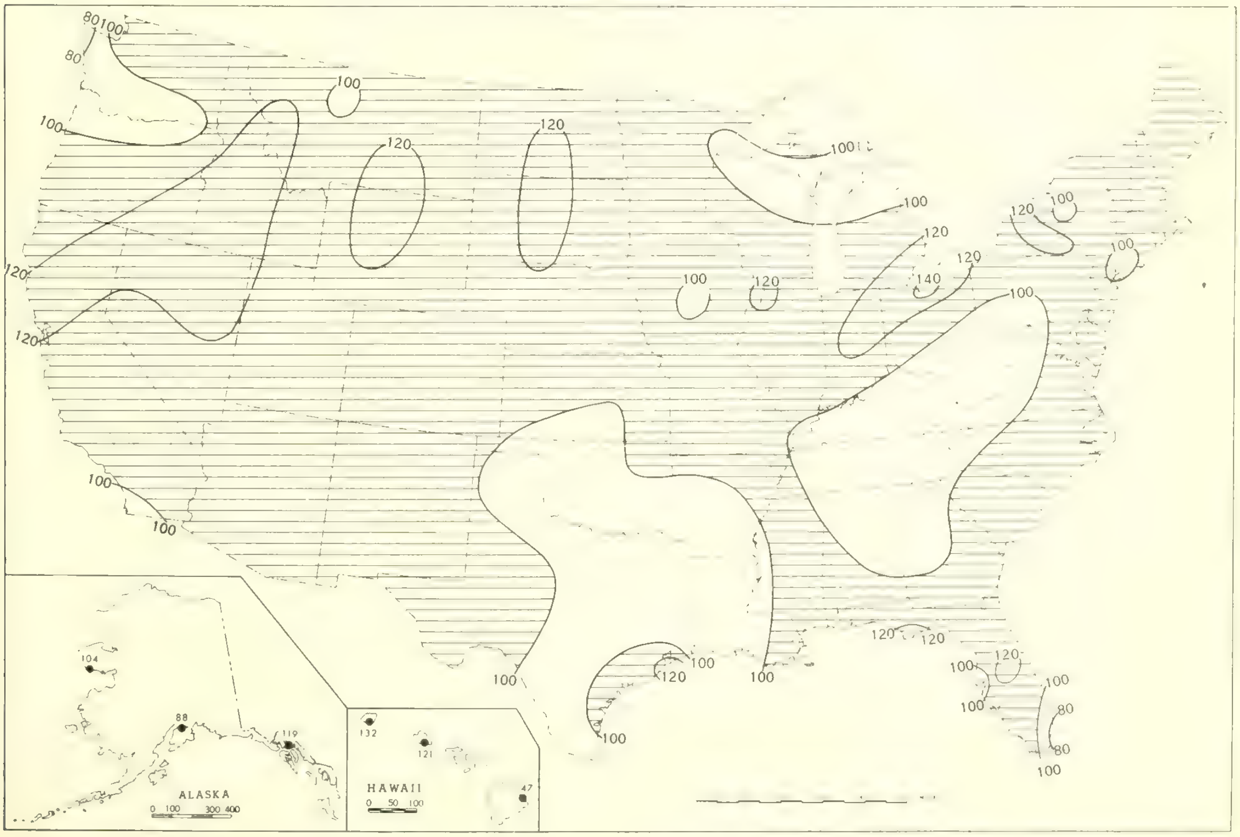


A. Amount of mean monthly snowfall is computed for Weather Bureau stations having at least 10 years of record.
B. Shows depth currently on ground at 7:00 a.m. E.S.T., of the Monday nearest the end of the month.
It is based on reports from Weather Bureau and cooperative stations.

Chart VI. A. Percentage of Possible Sunshine, April 1962.

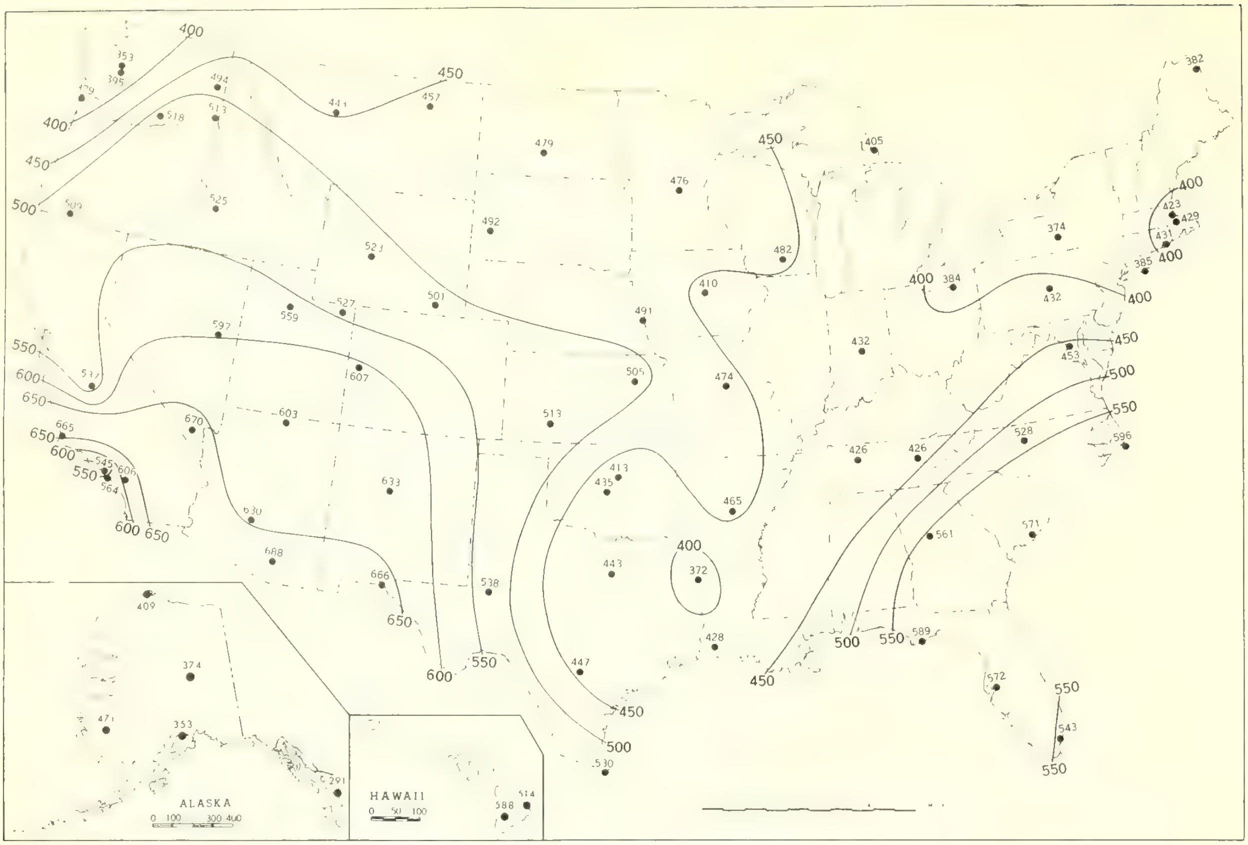


B. Percentage of Mean Monthly Sunshine, April 1962.

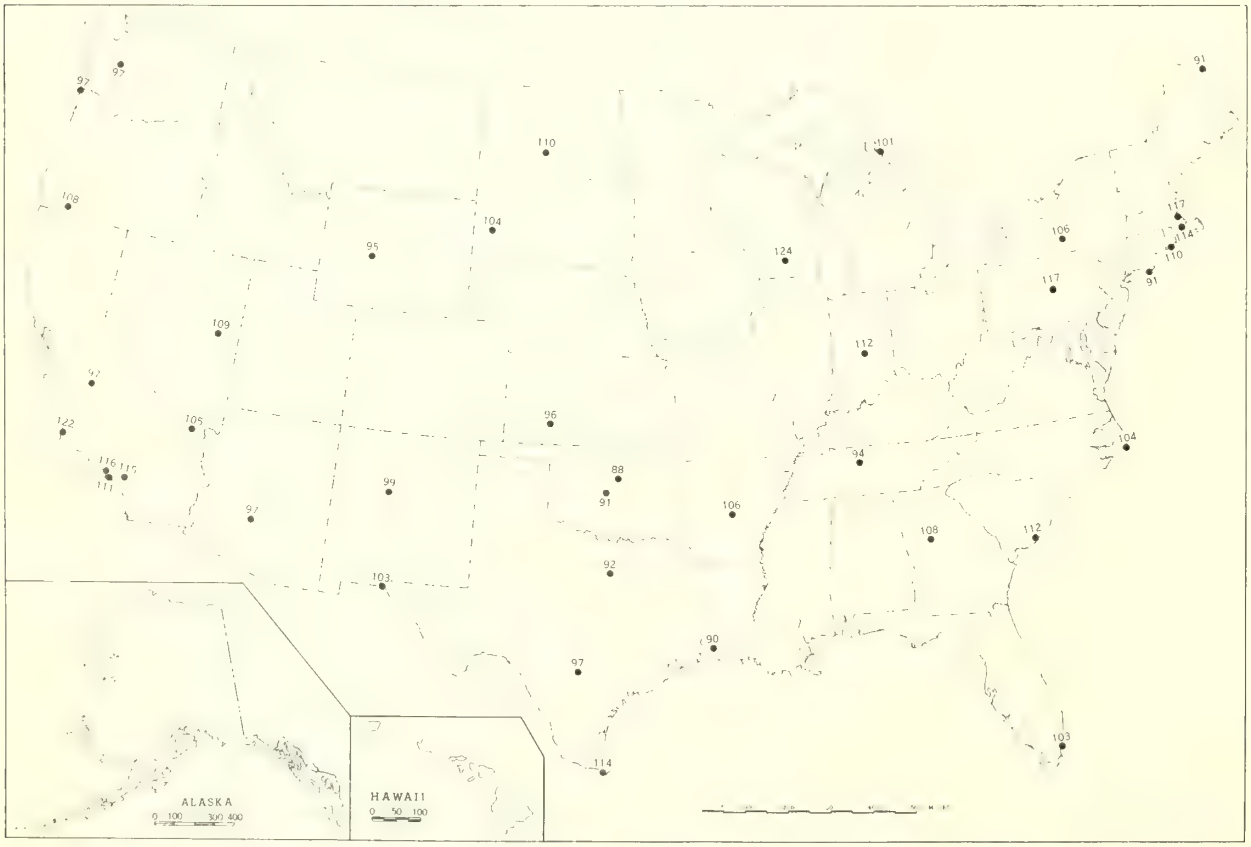


A. Computed from total number of hours of observed sunshine in relation to total number of possible hours of sunshine during month. B. Means are computed for stations having at least 10 years of record.

Chart VII. A. Average Daily Values of Solar Radiation, Langleys, April 1962.



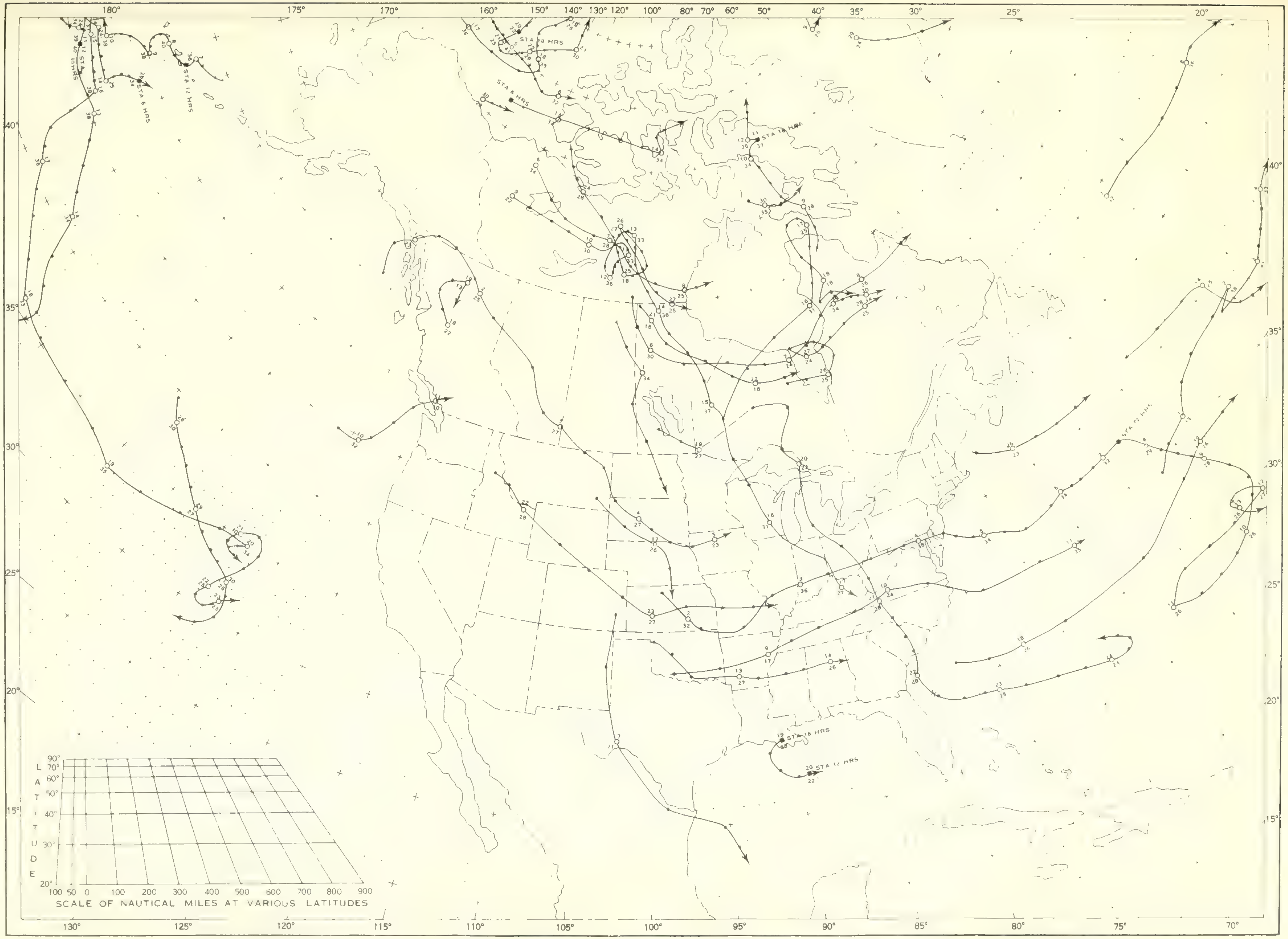
B. Percentage of Mean Daily Solar Radiation, April 1962.



A. Mean daily solar radiation, direct + diffuse, received on a horizontal surface in langleys (1 langley = 1 gm. cal. cm.$^{-2}$) and recorded in International Pyrheliometer Scale of 1956.

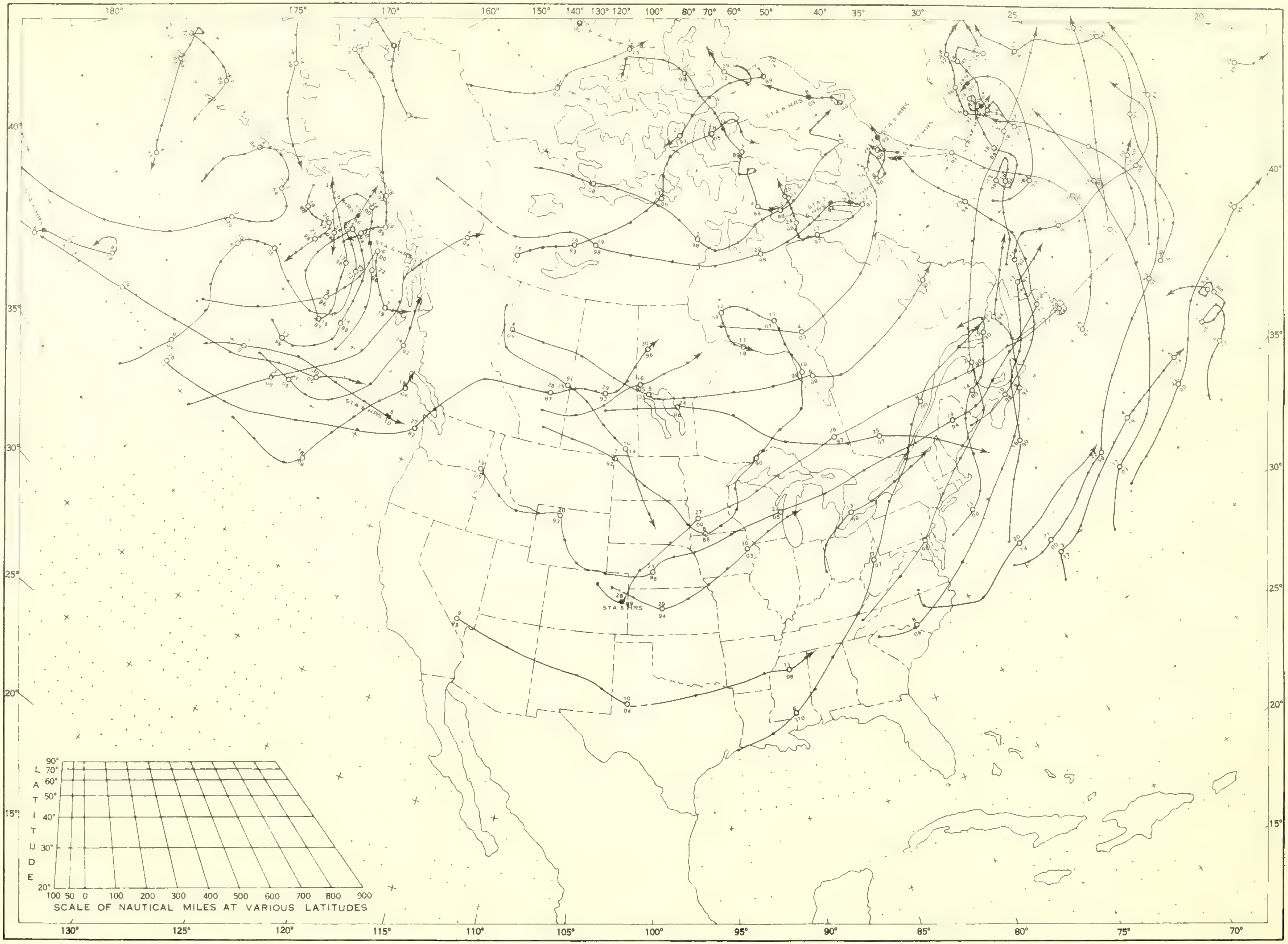
B. Percentage of the mean based on the period 1953-57, and corrected to the International Pyrheliometer Scale of 1956.

Chart VIII. Tracks of Centers of Anticyclones at Sea Level, April 1962



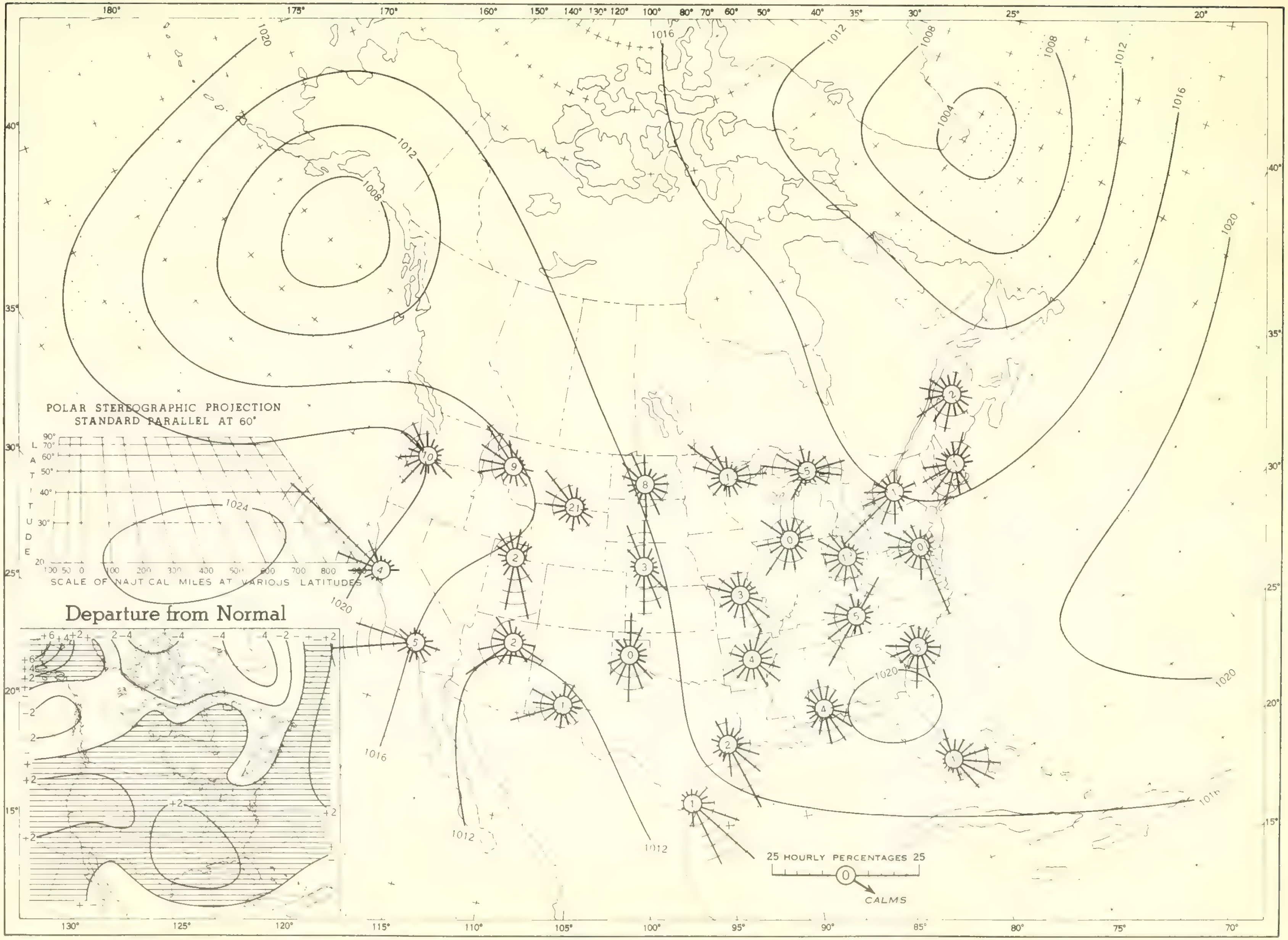
Circle indicates position of center at 7:00 a. m. E. S. T. Figure above circle indicates date, figure below, pressure to nearest millibar. Dots indicate intervening 6-hourly positions. Squares indicate position of stationary center for period shown. Dashed line in track indicates reformation at new position. Only those centers which could be identified for 24 hours or more are included.

Chart IX. Tracks of Centers of Cyclones at Sea Level, April 1962.



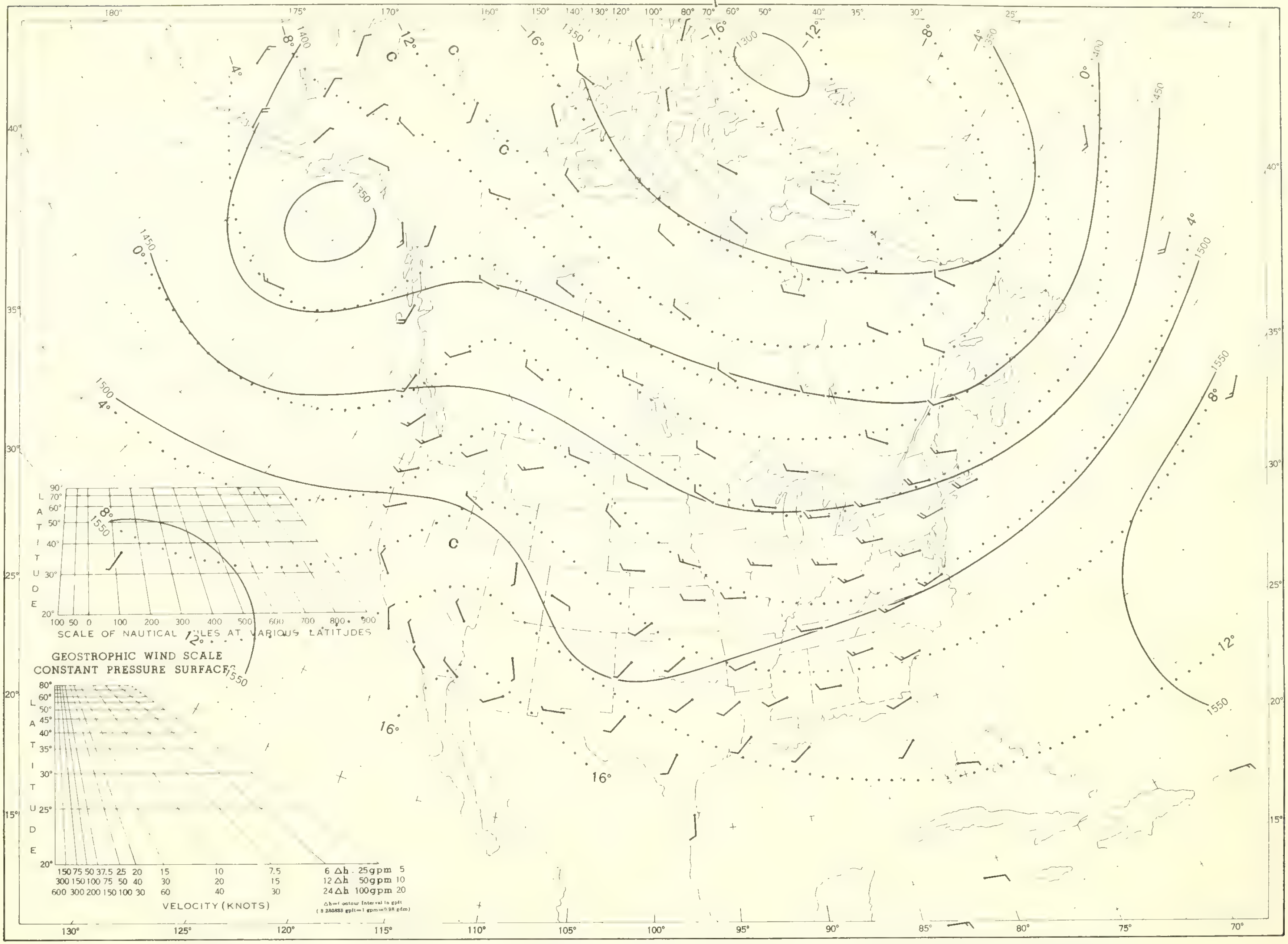
Circle indicates position of center at 7:00 a. m. E. S. T. See Chart VIII for explanation of symbols.

Chart X. Average Sea Level Pressure (mb.) and Surface Windroses, April 1962. Inset: Departure of Average Pressure (mb.) from Normal, April 1962.



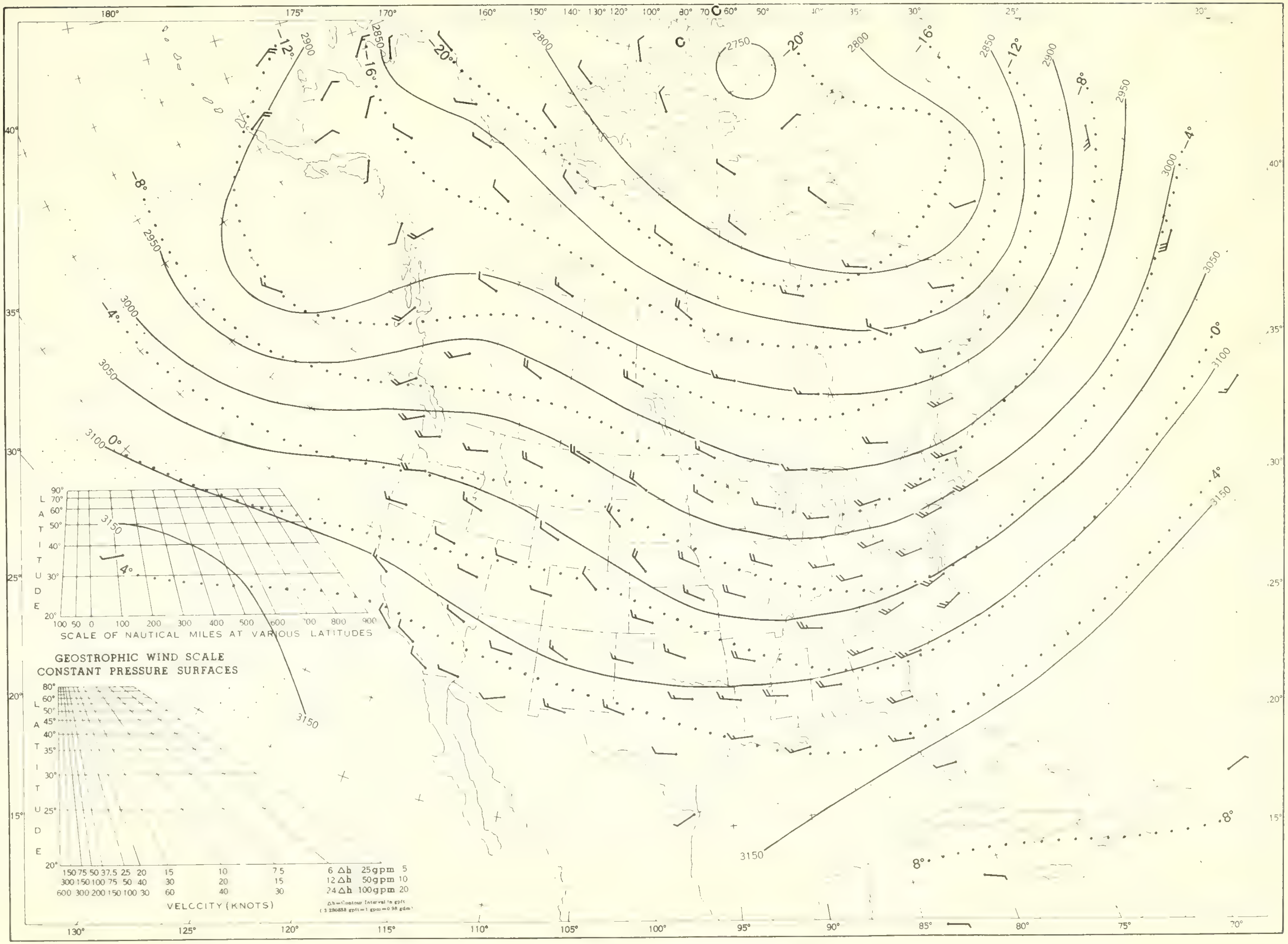
Average sea level pressures are obtained from the averages of the 7:00 a. m. and 7:00 p. m. E. S. T. readings. Windroses show percentage of time wind blew from 16 compass points or was calm during the month. Pressure normals are computed for stations having at least 10 years of record and for 10° intersections in a diamond grid based on readings from the Historical Weather Maps (1899-1939) for the 20 years of most complete data coverage prior to 1940.

Chart XI. 850-mb. Surface, 1200 GMT, April 1962. Average Height and Temperature, and Resultant Winds.



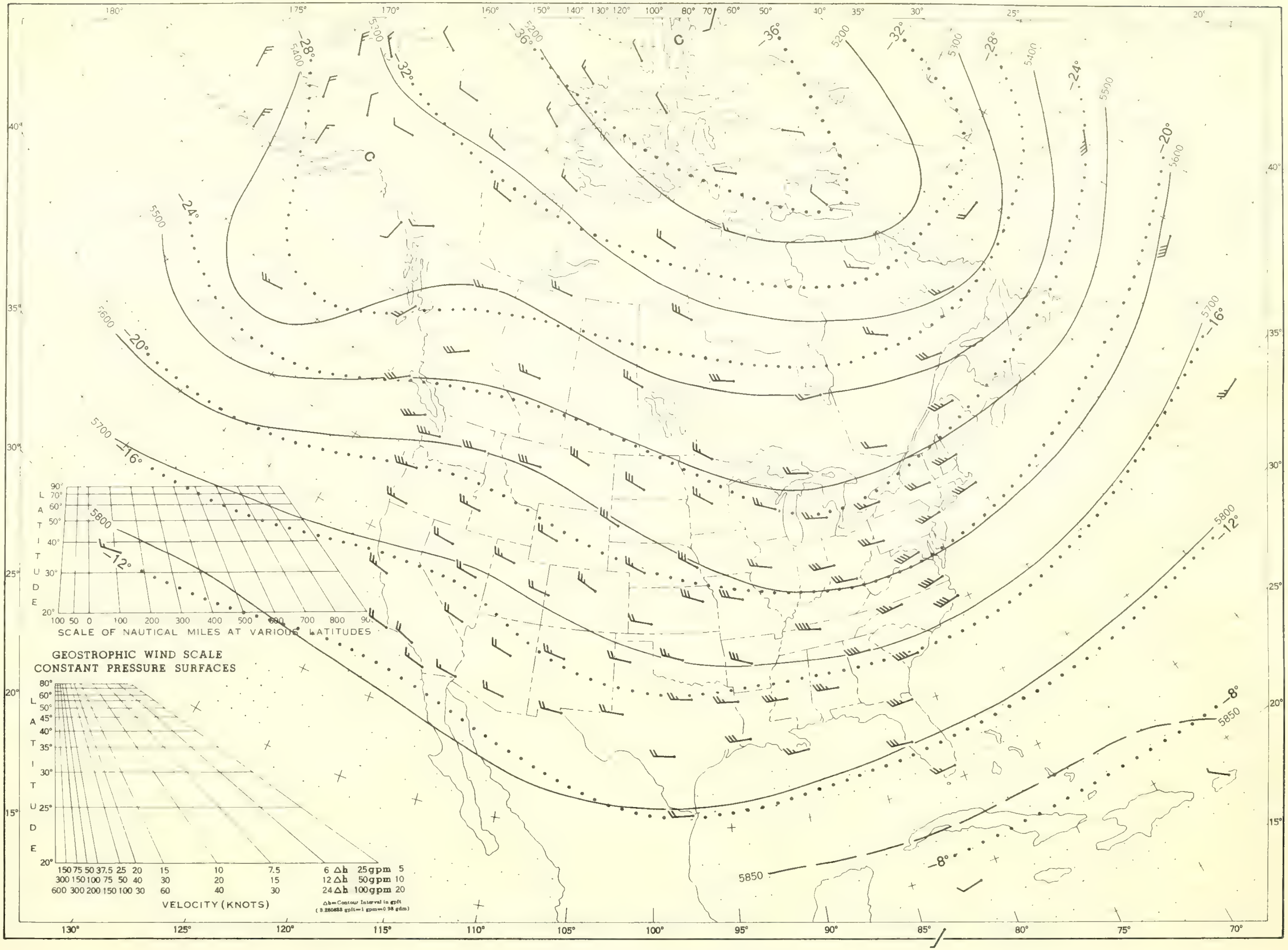
Height in geopotential meters (1 g.p.m. = 0.98 dynamic meters). Temperature in °C. Wind speed in knots; flag represents 50 knots, full feather 10 knots, and half feather 5 knots. All wind data are based on rawin observations.

Chart XII. 700-mb. Surface, 1200 GMT, April 1962. Average Height and Temperature, and Resultant Winds.



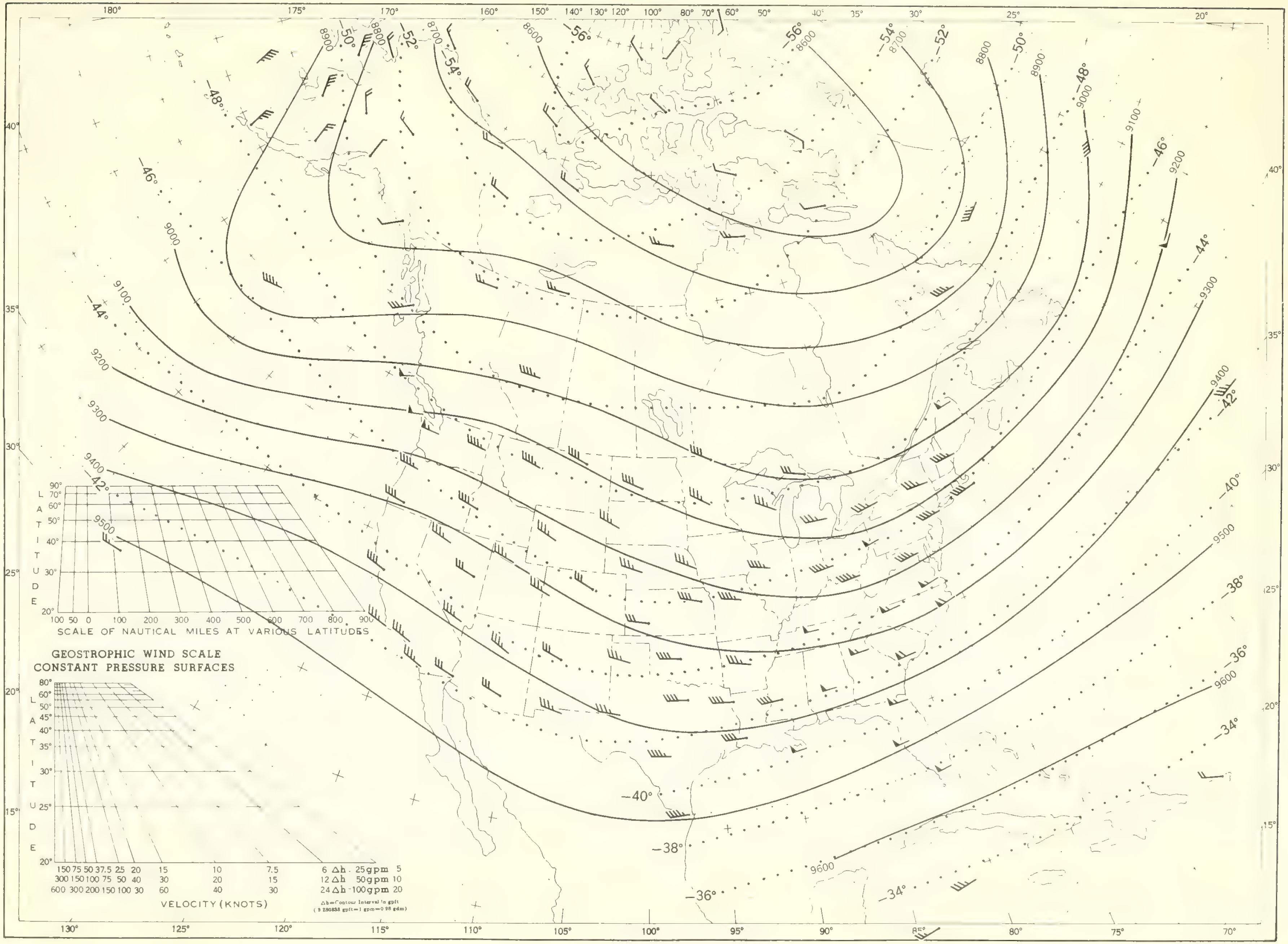
See Chart XI for explanation of map.

Chart XIII. 500-mb. Surface, 1200 GMT, April 1962. Average Height and Temperature, and Resultant Winds.



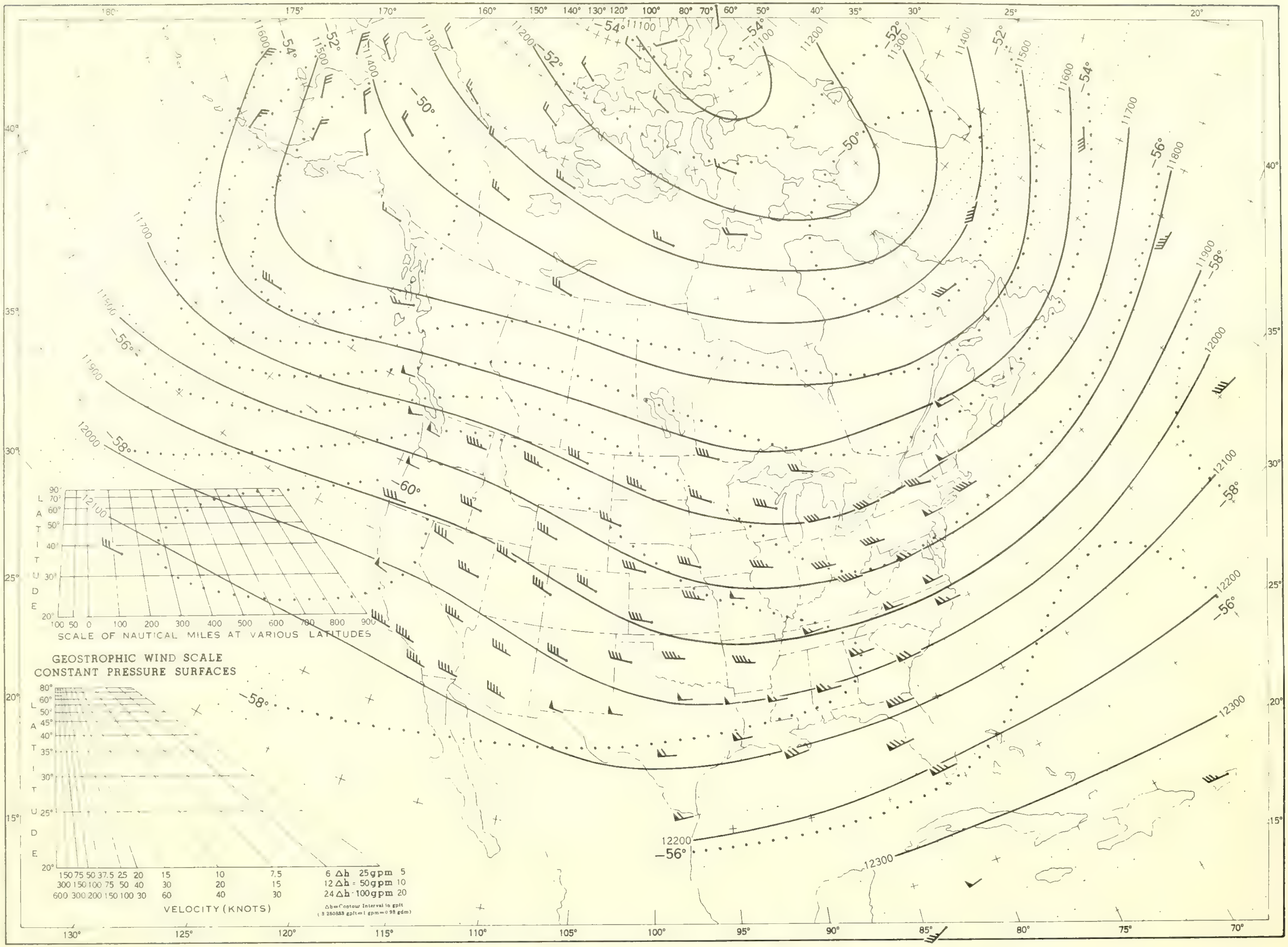
See Chart XI for explanation of map.

Chart XIV. 300-mb. Surface, 1200 GMT, April 1962. Average Height and Temperature, and Resultant Winds.



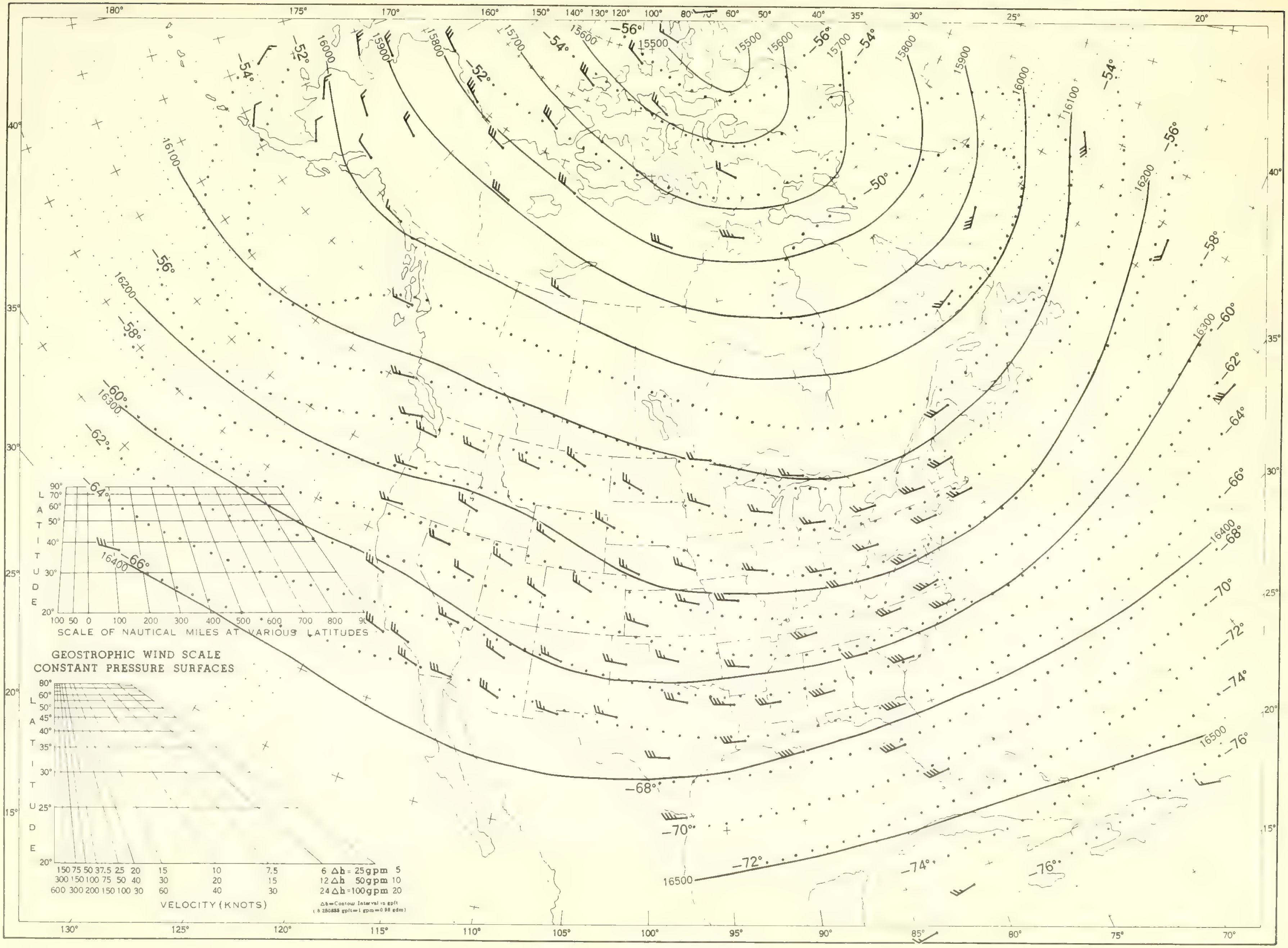
See Chart XI for explanation of map.

Chart XV. 200-mb. Surface, 1200 GMT, April 1962. Average Height and Temperature, and Resultant Winds.



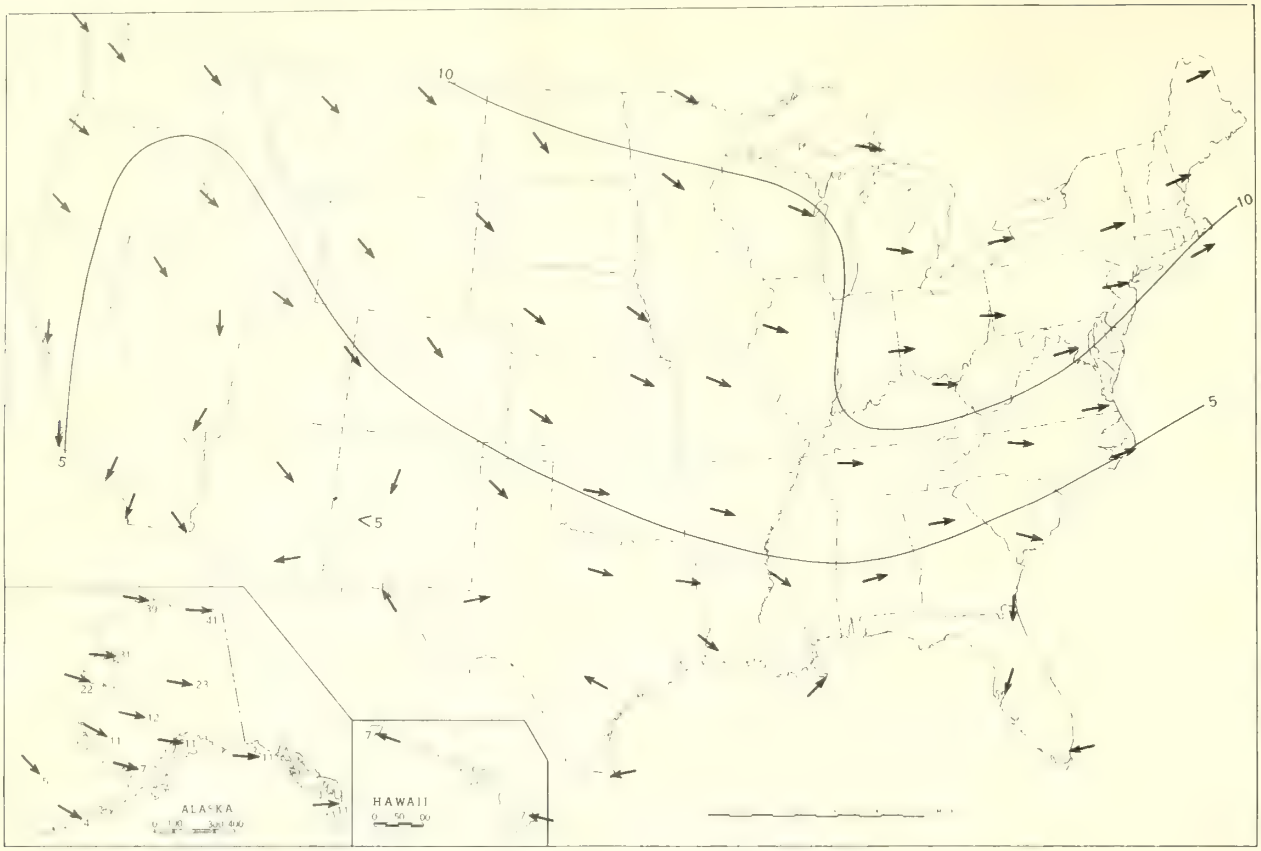
See Chart XI for explanation of map.

Chart XVI. 100-mb. Surface, 1200 GMT, April 1962. Average Height and Temperature, and Resultant Winds.

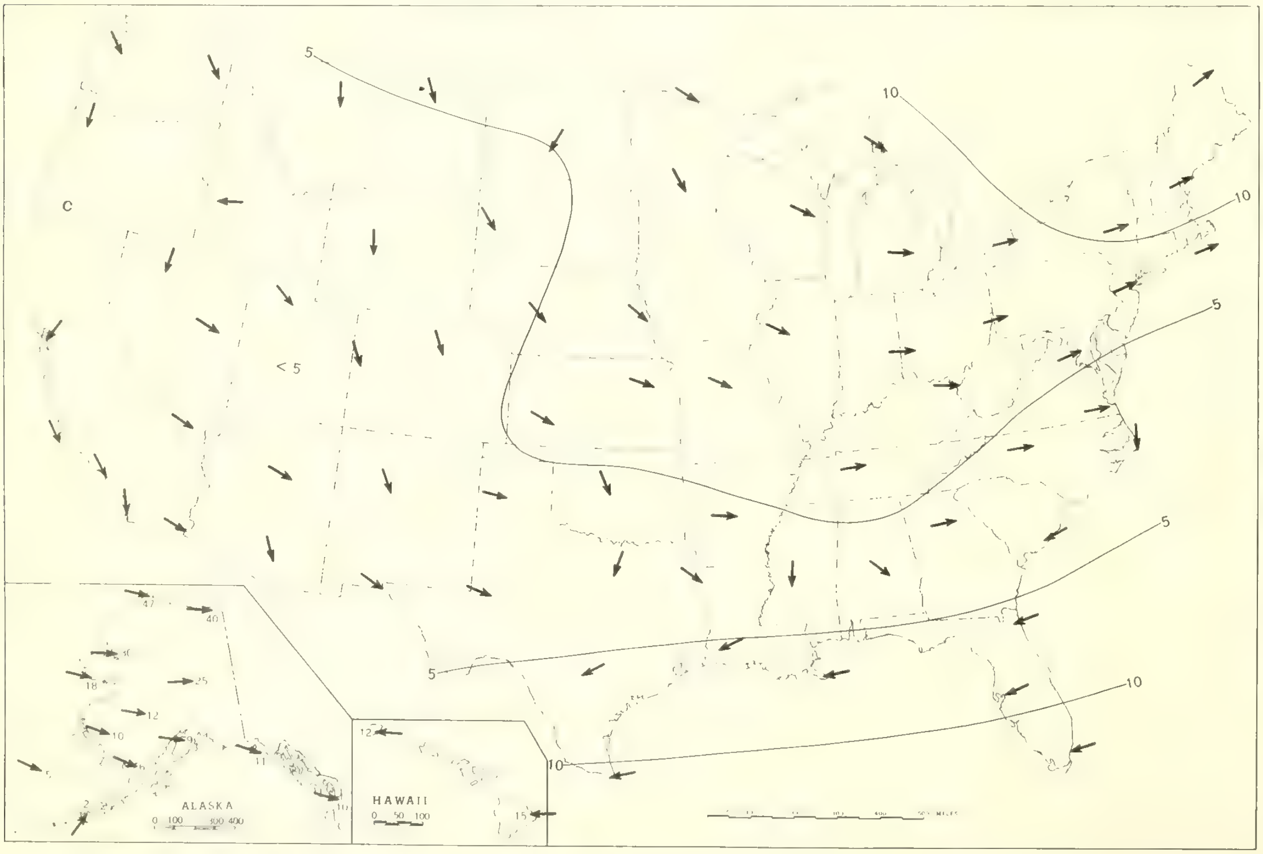


See Chart XI for explanation of map.

Chart XVII. A. 50-mb. Surface, 1200 GMT, April 1962. Resultant Winds.



B. 30-mb. Surface, 1200 GMT, April 1962. Resultant Winds.



Wind speed (isotachs) in knots. Arrows show resultant wind direction. All wind data are based on rawin observations.

U. S. DEPARTMENT OF COMMERCE
LUTHER H. HODGES, Secretary
WEATHER BUREAU
F. W. REICHELDERFER, Chief

CLIMATOLOGICAL DATA

NATIONAL SUMMARY

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MAY 1962
Volume 13 No. 5

ASHEVILLE: 1962

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NOTE: Delayed data and corrections will be carried in the June and December issues of this publication.

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CLIMATOLOGICAL DATA

NATIONAL SUMMARY

Volume 13 No. 5 MAY 1962

GENERAL SUMMARY OF WEATHER CONDITIONS

A prolonged dry spell in the northern Great Plains was broken by heavy rains, but unusually dry weather continued over the more southern portion of the country until eased by showers the last few days of the month. Most of May was cool in the Far West, particularily the Far Northwest. In contrast, unseasonably early summer warmth prevailed nearly all month across middle and southern areas east of the Rockies and about the third week of the month in the North.

TEMPERATURE.--The month was 2° to 4° cooler than usual in the Far West, extreme northwestern Great Plains, and eastern New England. Elsewhere, temperatures averaged much above normal, particularly in the East Central Interior where they were 8° to 10° warmer than usual. In the Far West, cool, cloudy, wet weather persisted all month in the northern portion, while in the middle and southern sections above-normal warmth prevailed the first week to 10 days and cool weather the remainder of the month. May was cool, cloudy, and rainy in the northern Great Plains, but in the middle Plains, it was hot and dry the first part and stormy the latter part. A heat wave prevailed from about the 13th to the 25th in the upper Mississippi Valley, Lake region, and Northeast and nearly all month across the middle and southern portions of the country east of the Rockies.

In the latter region, many stations reported the warmest May of record. Among these and the number of years of record are: Concordia (77 yrs.) and Dodge City (87 yrs.), Kans.; Cairo (67 yrs.) and Chicago (89 yrs.), Ill.; Detroit, Mich. (66 yrs.); Memphis (77 yrs.) and Chattanooga (84 yrs.), Tenn.; Birmingham (67 yrs.) and Mobile (91 yrs.), Ala.; and Atlanta (63 yrs.) and Thomasville (84 yrs.), Ga. It was the second warmest May since 1871 at St. Louis, Mo., and since 1887 at Lincoln, Nebr. Also many stations had the greatest number of days with afternoon temperatures of 90° and above in May. Some of these were Kansas City, Mo., 9 days; Cairo, Ill., 16; Detroit, Mich., and Pittsburgh, Pa., 6; Richmond, Va., 11; and Macon, Ga., 24. New records for the greatest number of consecutive days 90° and above in May were set at a number of stations. Examples are 6 consecutive days, 14th-19th, at Chicago, Ill., and 15th-20th at Binghamton, N. Y.; 7 days, 14th-20th, at Cincinnati, Ohio; and 13 days, 15th-27th, at Greenville, S. C. At Wichita, Kans., where the temperature rose to 90° and above on 13 days in May, an all-time high for so early in the season was set by 100° on the 25th. Also, 99° at Jacksonville, Fla., on the 20th and 94° at Alpena, Mich., on the 16th set new records for the highest temperatures so early in the season. A high of 94° on the 19th was the highest of record for May at Hartford, Conn.

In contrast, 43° on the 17th at Las Vegas, Nev., 25° on the 1st at Winslow, Ariz., 35° on the 22d at Albuquerque, N. Mex., and 32° on the 13th at Hartford, Conn., were the lowest for so late in the season. Cool weather the last 3 weeks of the month retarded crops and the maturity of fruits and nuts in California. Santa Maria, Calif., reported the coolest May since records began in 1943 at the airport, and Pendleton, Oreg., the second coolest May since records began in 1896. Scattered frost on a few days early in the month did some damage in extreme northern areas east of the Rockies, notably in upstate New York on the 10th and 12th.

PRECIPITATION.--Amounts were heavy from the north Pacific coast eastward over the northern portion of the country to the Lake region and middle Ohio Valley. The northern Great Plains area, which was suffering from an extended drought, and the upper Mississippi Valley received two to three times the normal May rainfall. In contrast, dry conditions prevailed across the extreme southern portion of the country from southern California to Georgia and Florida, where less than 25 percent of the usual rain fell during the month.

More rain fell during May than in many years in the northern interior between the Rockies and Lake region. Many stations in that area reported the wettest May of record. Some of these are: St. Joseph, Mo., (11.53 inches); North Platte (8.01) and Valentine (8.96), Nebr.; Huron (7.69) and Rapid City P. O. (9.21), S. Dak.; and Devils Lake (5.82) and Fargo (5.94), N. Dak. It was the second wettest May at Duluth, Minn., (7.67 inches) since 1871 and at Dubuque, Iowa, (9.43 inches) since 1851. Pendleton, Oreg., had 3.02 inches for the third wettest May in 72 years and Boise, Idaho, 2.90 inches for the wettest May in 20 years. A total of 4.60 inches on the 28th-29th at Dubuque, Iowa, set a new record for the greatest 24-hour amount in May since records began there in 1874. St. Joseph Airport, Mo., reported a fall of 7.12 inches in 24 hours on the 18th and 19th as the greatest ever recorded in 24 hours in any month.

Showers and thunderstorms were much more frequent than usual over the northern and middle portions of the country. Rain fell on 26 days at Astoria, Oreg., 22 days at Helena, Mont., 25 days at Fargo, N. Dak., and 17 days at Cincinnati, Ohio, during the month. Sioux City, Iowa, had 17 days with thunderstorms and 5 with hail, the most in any month since records began in 1890. Measurable rain fell on 9 consecutive days at Salt Lake City, Utah, equaling the alltime record.

May was unusually dry across the extreme southern third of the country. This droughty situation was accentuated by above-normal warmth east of the Rockies. Rains, however, near the close of the month eased the dryness in most middle and southern areas east of the Rockies. For instance, rain on the last 3 days of the month at Birmingham, Ala., after practically no rain in May and 23 days with temperatures of 90° and above (normal is only 4 days), was referred to as "the million dollar rain". Mobile, Ala., reported the warmest and second driest May of record since 1871. At Thomasville, Ga., this was the driest and warmest May since records began in 1878. It was the driest May at Pensacola, Fla., since 1898; at

Ft. Myers, Fla., since records began in 1886; at Daytona Beach, Fla., since records began in 1923; and at Wichita, Kans., since 1913. Not even a trace of rain fell at El Paso, Tex. Port Arthur, Tex., reported the driest January-May period since records began in 1911.

Rain at Ft. Smith, Ark., on the 25th ended a period of 24 consecutive days without measurable precipitation and with much-above-normal warmth. The river stage there was the lowest of record for May. The number of consecutive days without measurable rainfall at a few other stations were 28 at New Orleans, La., the greatest in May since 31 in 1899; 31 at Meridian, Miss., an alltime May record; 27 at Dallas, 27 at San Antonio, and 28 at Austin, Tex., all new May records; 27 at Nashville, Tenn., greatest for May since 1903; and 23 at Miami, Fla.

The month was dry also in the Northeast. Nantucket, Mass., reported the second driest May in 76 years. Newark, N. J., had the driest since 1941; Erie, Pa., since 1936; and Charleston, W. Va., since 1940.

Light snow fell in a few extreme northern areas east of the Rockies about the 8th. Marquette, Mich., reported 1.1 inches and Sault Ste. Marie 1.4 inches on the 8th. A fall of 2.8 inches at Flagstaff, Ariz., (elevation 6,993 feet) on the 27th-28th was the first measurable snowfall so late in the spring there. Reno, Nev., reported a snowfall of 9.0 inches on the 15th and 16th for the greatest in 24 hours and greatest monthly total for May.

DESTRUCTIVE STORMS.--Numerous hailstorms, many tornadoes, and frequent thunderstorms were reported from northern and interior sections of the country. Billings, Mont., had hail on 3 days, with stones on the 20th measuring up to 3 inches in diameter and causing $1 million damage. At Burlington, Iowa, hailstones, mostly 1 inch in diameter, fell for nearly 1/2 hour, covering the ground. A tornado on the 24th in Waterbury, Conn., and vicinity killed 1 man and caused $3.5 million property damage in a 12-mile path. Another tornado caused heavy damage at Tilden, Nebr., on the 21st. A severe electrical storm on the 23d caused $3 million fire damage to property from lightning strikes in Buffalo and vicinity, N. Y. The month was unusually windy in the southern Great Plains. Ft. Worth, Texas, reported the windiest May and second windiest month of record.

CONDENSED CLIMATOLOGICAL SUMMARY

MAY 1962

Section	Temperature						Precipitation			
	Monthly extremes						Monthly extremes			
	Station	Highest	Date	Station	Lowest	Date	Station	Greatest	Station	Least
		°F			°F			In.		In.
Alabama	2 Stations	100	22+	Heflin	36	2	Falkville	3.38	Coffee Springs 2NW	0.00
Arizona	Bouse	110	7	Fort Valley	12	1	Bright Angel RS	2.45	109 Stations	.00
Arkansas	4 Stations	97	29+	Gilbert	37	2	Commins Farm	6.33	Beedeville	T
California	Death Valley	107	8+	White Mountain 2	3	21	White Mountain 2	6.75	65 Stations	.00
Colorado	2 Stations	102	13+	Fraser	1	1	Fleming 1S	6.49	2 Stations	.00
Connecticut	Putnam	98	19	Coventry	20	11	Stafford Springs	3.02	Wepawaug Reservoir	.72
Delaware	2 Stations	97	19+	Middletown 2S	30	10	Selbyville	2.74	Milford 3WNW	.64
Florida	Monticello 2S	106	28	2 Stations	46	7+	Bushnell 2E	6.59	Blountstown 2SE	.05
Georgia	Camilla	104	27	Blairsville Exp Sta	34	3	Camp Stewart	6.85	Americus 4ENE	.00
Idaho	Swan Falls PH	87	22	Driggs	15	1	Three Creek	4.80	Idaho Falls 2ESE	1.00
Illinois	Palestine	97	17	Marengo	34	9	Pontiac	9.76	Chester	1.56
Indiana	Salem	98	18	Michigan City Mun AP	34	8	Richmond Waterworks	8.01	Whiting	1.82
Iowa	Onawa	94	7	Allison	31	2	Harlan	12.85	Britt	2.05
Kansas	Johnson 11ESE	103	12	Tribune 1W	28	1	Parallel	10.31	Elkhart	.24
Kentucky	2 Stations	96	18+	Blaine 1W	35	3	2 Stations	7.03	Paducah FAA Airport	1.86
Louisiana	Pontchartrain Causeway	98	24	4 Stations	44	3+	Kentwood	8.02	2 Stations	.00
Maine	Sanford 2NNW	97	19	Middle Dam	22	11	Hiram 2S	3.38	Old Town FAA Airport	1.00
Maryland	2 Stations	98	19	Unionville	28	10	Luke	4.66	Pocomoke City 1S	.88
Massachusetts	Clinton	97	20	Barre Falls Dam	25	11	Barre Falls Dam	4.31	Nantucket WB Airport	.59
Michigan	Detroit WBAP Willow Run	96	18+	2 Stations	21	9	Bergland Dam	6.67	Montague	.67
Minnesota	3 Stations	90	17+	Big Falls Ranger Sta.	22	1	Bemidji Airport	10.09	Lanesboro	2.30
Mississippi	Moorhead	99	17	3 Stations	41	3	Greenwood	6.37	Vancleave	.02
Missouri	3 Stations	97	17+	Berryman 6NW	34	2	St Joseph WB AP	11.53	2 Stations	1.20
Montana	Moorhead 5NE	85	10	Santa Rita 16N	10	5	Shonkin 7S	10.57	Goldbutte 7N	.80
Nebraska	Beaver City	103	12	Gordon	19	1	Newport	10.01	Orleans 2W	1.90
Nevada	Mesquite	106	22	Sheldon	17	20	Lamoille PH	5.05	2 Stations	.00
New Hampshire	2 Stations	98	20+	Grafton	19	11	Grafton	5.32	Massabesic Lake	1.72
New Jersey	Little Falls	101	20	Layton 3NW	25	10	Burlington	2.65	Branchville	.64
New Mexico	Carlsbad FAA AP	104	12	Gavilan	7	1	Capulin 6SSE	2.95	52 Stations	.00
New York	Poughkeepsie	102	19	4 Stations	20	10	Piseco	5.28	Patchogue	.42
North Carolina	Hamlet	99	15	Celo 2S	29	4	Manteo	7.60	Cape Hatteras WB	.61
North Dakota	Fullerton	89	2	2 Stations	16	2	Richardton Abbey	8.45	San Haven	2.79
Ohio	Toledo Blade	99	19	do	32	10+	Hillsboro	8.67	Plymouth	.97
Oklahoma	2 Stations	103	25+	Boise City 2E	31	1	Lawton	6.92	Taloga	.00
Oregon	Richland	87	31+	Crater Lake NP HQ	14	21	Brightwood	10.13	Crescent Lake	.24
Pennsylvania	Marcus Hook	99	19	Coudersport 3NW	18	10	Reading WB City	5.43	Paupack 2WNW	.80
Puerto Rico	Arecibo 2ESE	96	9	2 Stations	54	15+	Paraiso	18.97	Fredericksted Fort	.40
Rhode Island	Greenville	87	19	Kingston	29	13	Greenville	2.34	Block Island WB AP	1.59
South Carolina	Ridgeland 2SE	101	27+	Ninety Nine Islands	38	3	Yamassee 1NNW	5.59	Tilghman Forest Nursery	.19
South Dakota	4 Stations	95	9	2 Stations	15	2+	Lead	13.52	Madison Research Frm	3.23
Tennessee	Columbia 2N	99	27	Mountain City 2	31	3	Union City	6.17	Pikeville 2	.62
Texas	Presidio	110	12	Dalhart FAA Airport	27	1	Plainview	5.83	Several Stations	.00
Utah	2 Stations	95	10+	Moon Lake	8	1	Brigham City	4.30	2 Stations	.00
Vermont	do	95	20	West Burke	17	8	Whitingham 3W	5.33	Waterbury 1NNE	1.72
Virginia	3 Stations	97	20+	3 Stations	31	4+	Charlottesville 1W	8.59	Chincoteague W L Refuge	1.04
Washington	5 Stations	82	28+	Rainier Paradise RS	14	4	Palmer 3SE	6.41	Ephrata FAA AP	.56
West Virginia	2 Stations	97	19	Birch River 6SSW	29	3	Moorefield McNeill	8.29	Birch River 6SSW	1.10
Wisconsin	3 Stations	93	18	2 Stations	24	9+	Solon Springs	9.35	2 Rivers	1.49
Wyoming	2 Stations	92	11+	Lake Yellowstone	13	1	Alva 5SE	12.78	Sage 4NNW	.69

+ And also on an earlier date or dates.

NOTE: Dates in the above Condensed Climatological Summary apply to the period 24 hours prior to time of observation. In some cases the actual occurrence is on the calendar date preceding that shown. (See individual Climatological Data for times of observations).

CLIMATOLOGICAL DATA

ENGLISH UNITS

State and Station	Elevation (ground)	Pressure		Temperature											Average relative humidity	Precipitation							Wind						No. of days (sunrise to sunset)			Sky cover, tenths (sunrise to sunset)	Possible sunshine
												No. of days							No. of days		Snow, Sleet				Fastest mile							
		Station Ø	Sea level	Average maximum	Average minimum	Average	Departure from normal	Highest	Date	Lowest	Date	Max. 90 F. or above	Min. 32 F. or below	Average dew point		Total	Departure from normal	Greatest in 24 hours	.01 inch or more	With thunderstorms	Total	Maximum depth on ground	Average speed	Prevailing direction	Speed	Direction	Date	Clear, 0-3	Partly cloudy, 4-7	Cloudy, 8-10		
	Ft.	Mb.	Mb.	F.	F.	F.	F.	F.		F.				F.	%	In.	In.	In.			In.	In.	M.p.h.		M.p.h.							%
ALABAMA																																
BIRMINGHAM	610	959.8	1018.8	92	65	78.6	8.3	99	28	47	3	23	0	59	55	1.26	-2.16	1.05	4	3	0.0	0	7.1	ENE	33	W	30	16	9	6	4.0	86
HUNTSVILLE	605	995.2	1018.2	90	62	76.1	5.7	96	28+	44	3	22	0	59	59	1.55	-1.84	1.20	5	5	0.0	0	5.1	SE	29*	SSE	29	16	8	7	4.2	
MOBILE	211	1016.1	1018.2	92	69	80.1	6.0	99	20	56	3	24	0	64	65	0.45	-4.43	0.13	5	5	0.0	0	7.9	SW	30*	ESE	16	17	10	4	3.6	
MONTGOMERY	195	1010.3	1018.5	91	64	77.2	4.8	97	21+	47	3	21	0	63	65	1.14	-2.33	0.50	6	6	0.0	0	6.0	WSW	27	E	30	19	9	3	3.7	83
ALASKA												B																				
ANCHORAGE	90	1009.8	1014.7	52	37	44.7	- 1.2	62	31	28	3	0	7	34	67	1.52	1.00	0.47	10	0	0.0	0	6.3	SE	20*	SE	23	5	6	20	7.6	43
ANNETTE	110	1013.5	1017.8	57	41	49.0	0.3	73	23	33	5	3	0	40	73	2.33	-4.74	0.53	15	0	T	0	7.3	NNW	18*	SSE	2+	8	6	17	6.7	
BARROW	22	1018.0	1018.6	22	11	16.6	- 1.8	38	21+	- 9	1	0	31	13	82	0.43	0.31	0.29	7	0	4.6	16	12.1	ENE	32*	ENE	15	2	5	24	8.4	
BARTER ISLAND	39	1016.9	1018.7	23	12	17.5	- 3.2	37	21+	- 7	1	0	31	13	81	0.17	-0.08	0.10	5	0	2.3	8	13.0	E	31*	E	15	3	7	21	7.9	
BETHEL	125	1011.9	1013.2	43	30	36.2	- 2.8	59	30	10	1	0	23	32	85	1.66	0.71	0.43	16	0	5.6	T	13.0	SSW	37*	S	31	2	4	25	8.6	
COLD BAY	94	1011.2	1015.2	42	34	38.2	- 1.3	49	7	25	2	0	12	34	85	2.37	0.08	1.40	14	0	0.1	T	17.8	SSE	46*	SE	17	0	3	28	9.2	
CORDOVA	40	1014.9	1016.7	50	35	42.1	- 1.6	58	29	27	4+	0	14	37	81	5.16	0.10	1.34	15	0	T	T	6.3	ESE	18*	SE	26	3	8	20	8.0	
FAIRBANKS	436	996.3	1013.6	55	35	44.9	- 2.2	70	26+	17	2	2	9	31	60	0.62	-0.09	0.58	3	0	2.4	8	7.2	SW	23*	W	9	5	7	19	7.3	
JUNEAU	17	1015.9	1016.7	54	35	44.5	- 1.1	66	23	27	4	0	9	35	73	2.85	-0.39	0.99	13	0	T	0	5.9	ESE	23*	ESE	26+	9	4	18	6.9	53
KING SALMON	43	1011.5	1013.6	50	32	41.0	- 2.3	65	30	20	3	0	10	33	77	1.70	0.74	0.64	15	0	0.2	T	11.4	SW	33*	SSE	18	5	4	22	7.6	
KOTZEBUE	10	1013.7	1014.3	36	25	30.2	- 0.7	47	6	- 2	1	0	26	27	87	0.75	0.42	0.49	9	0	6.4	22	9.1	ESE	24*	SE	7	3	6	22	8.1	
MC GRATH	334	1001.7	1014.6	50	32	41.1	- 3.0	67	31+	12	2	0	12	29	65	0.32	-0.56	0.07	11	0	0.7	12	6.3	N	20*	SSW	7	5	6	20	7.5	
NOME	13	1012.7	1013.3	37	28	32.3	- 2.7	46	26	3	1	0	25	29	88	0.61	-0.08	0.21	15	0	3.5	25	12.0	ENE	32*	WNW	15	2	1	28	9.0	18
ST. PAUL ISLAND	22	1011.5	1012.4	37	30	33.8	- 1.0	46	30	25	22+	0	24	32	92	1.98	0.68	0.36	15	0	7.5	3	16.0	NW	44*	N	14	0	1	30	9.7	
SHEMYA	122	1008.8	1012.4	42	37	39.4	1.4	46	30+	33	11	0	0	37	91	1.00	-1.40	0.44	11	0	T	0	17.0	SSW	43*	SSW	29	0	0	31	9.7	
YAKUTAT	28	1015.9	1017.0	50	35	42.5	- 2.1	58	31	27	4+	0	9	37	81	5.20	-2.78	1.72	14	0	0.0	0	6.9	NW	31*	SE	15	2	8	21	7.8	
ARIZONA																																
FLAGSTAFF	6993	789.0	1013.2	65	31	48.0	- 2.9	75	10+	19	1	0	20	21	39	0.99	0.48	0.48	6	2	3.2	3	8.6	SSW	25*	S	25	18	9	4	3.5	
PHOENIX	1109	971.9	1010.4	91	56	73.5	- 3.5	101	9+	48	22+	18	0	29	20	T	-0.13	T	0	0	0.0	0	5.2	W	22*	WNW	20	22	7	2	2.2	96
PRESCOTT	5014	845.9	1012.2	74	42	58.1	- 3.2	85	9+	30	1	0	1	21	28	0.18	-0.06	0.17	2	1	T	0	10.0	SSW	54	SW	20	19	9	3	2.9	89
TUCSON	2584	923.5	1010.1	88	56	71.7	- 1.3	97	11+	46	22	14	0	25	19	0.00	-0.13	0.00	0	0	0.0	0	10.2	WSW	30	SW	27	23	5	3	2.1	98
WINSLOW	4880	850.0	1009.9	80	42	60.8	- 4.5	92	10	25	1	4	2	21	25	0.08	-0.24	0.04	3	0	T	0	12.6	SW	40*	SSW	12	21	7	3	2.9	
YUMA	199	1005.8	1010.8	92	60	76.2	- 3.9	104	6	52	17+	19	0	32	24	T	-0.01	T	0	0	0.0	0	8.1	WNW	23	W	12	26	5		1.5	97
ARKANSAS																																
FORT SMITH	449	996.3	1015.4	89	62	75.8	5.9	95	24	43	2	19	0	62	65	1.37	-3.89	0.75	4	5	0.0	0	7.3	SW	45	W	26	11	15	5	4.7	77
LITTLE ROCK	257	1003.4	1016.4	89	62	75.3	4.8	96	28+	45	2	18	0	62	67	2.31	-2.97	2.07	3	3	0.0	0	8.1	SW	33	N	17	10	14	7	4.8	81
TEXARKANA	361			86	65	75.6	4.0	91	27	49	2	6	0	64	72	2.30	-2.60	1.20	2	2	0.0	0	9.7	SSW								
CALIFORNIA																																
BAKERSFIELD	494	997.6	1015.1	78	54	66.0	- 4.4	92	7	46	20	3	0	41	43	0.07	-0.15	0.06	2	0	0.0	0	8.5	NNW	23*	WNW	14+	19	6	6	3.3	
BISHOP	4108	870.6		75	42	58.4	- 4.2	91	4	35	14+	1	0			1.30	1.10	0.51	6	0	0.0	0						13	11	7	4.7	
BLUE CANYON	5280	838.1		56	40	48.1	- 3.6	69	7	32	20+	0	3			1.08	-2.02	0.35	8	2	2.0	1	7.0	SSW	27	SSW	8	5	9	17	7.0	
BURBANK	699	989.2	1015.1	71	52	61.3	- 3.1	87	2	45	17	0	0	47	65	0.38	0.20	0.37	2	1	0.0	0	7.8	S	21*	NW	14	11	9	11	5.0	
EUREKA U	43	1017.3		57	48	52.3	- 0.7	68	7	42	13	0	0			0.60	-1.58	0.22	8	0	0.0	0	8.2	N$	28	N	3	6	10	15	7.0	61
FRESNO	326	1002.4	1014.1	79	51	65.0	- 2.5	92	7	44	20	3	0	41	46	0.20	-0.10	0.11	3	1	0.0	0	8.3	WNW	26	NW	19+	17	8	6	3.5	86
LONG BEACH	34	1014.6	1015.9	71	53	62.0	- 1.4	84	1	47	28+	0	0	50	68	0.12	0.01	0.12	1	0	0.0	0	7.6	W	21*	W	12	10	12	9	4.9	
LOS ANGELES	97	1012.5	1016.0	69	55	61.5	1.0	83	3	50	21+	0	0	51	72	0.06	-0.07	0.06	1	0	0.0	0	8.8	WSW	23*	W	12+	9	18	4	4.5	
LOS ANGELES U	312			71	55	62.9	- 1.9	88	3	49	17	0	0	49	67	0.02	-0.14	0.02	1	0	0.0	0	6.2	W$	23	W	16	12	12	7	4.9	68
MT SHASTA R	3544	892.0		62	39	50.6	- 3.2	75	7+	32	20	0	1			2.55	0.56	0.75	12	2	1.5	1						7	14	10	5.8	
OAKLAND	3	1016.6	1016.9	65	51	57.9	- 1.8	78	7+	46	21+	0	0	45	65	T	-0.65	T	0	0	0.0	0	11.5	WNW	33*	WNW	12	10	14	7	4.9	
POINT ARGUELLO	367	1003.1		61	48	54.1	- 1.3	72	7	43	1	0	0			0.12	-0.05	0.05	4	0	0.0	0	9.9		23*	NW	23+	11	13	7	5.2	
RED BLUFF	341	1001.4	1014.2	78	52	65.0	- 3.3	91	7	45	20+	2	0	41	45	0.98	-0.15	0.60	3	2	0.0	0	10.0	SSE	34	SE	8	12	14	5	4.7	85
SACRAMENTO	17	1014.2	1015.3	78	49	63.5	- 2.5	91	7	44	11	1	0	46	62	0.03	-0.56	0.03	1	0	0.0	0	8.9	SW	29	W	8	14	11	6	4.2	88
SACRAMENTO U	23			76	51	63.3	- 2.4	90	7	46	24+	1	0			0.06	-0.56	0.05	2		0.0	0										
SANDBERG R	4517	861.8		61	42	51.9	- 4.7	76	6	31	14+	0	3			0.42	0.11	0.29	3	0	2.6	T	13.0	NNW	31*	N	1	20	6	5	2.8	
SAN DIEGO	13	1012.5	1015.8	69	57	62.6	- 0.9	78	2	50	17	0	0	51	70	0.62	0.47	0.35	6	1	0.0	0	7.7	WNW	19	NW	1	8	15	8	5.4	57
SAN FRANCISCO	8	1016.9	1017.5	65	49	56.7	- 1.6	79	7+	45	22+	0	0	46	72	T	-0.48	T	0	0	0.0	0	13.8	WNW	44	WNW	19	10	14	7	5.0	
SAN FRANCISCO U	52			61	50	55.2	- 2.2	77	6	47	20	0	0			T	-0.63	T	0	0	0.0	0	11.5	W$	36	W	23					79
SANTA MARIA	238	1008.8	1017.2	64	45	54.2	- 3.4	75	2	36	20	0	0	47	79	0.10	-0.12	0.04	4	0	0.0	0	10.2	WNW	35*	WNW	23	16	11	4	4.0	
COLORADO																																
ALAMOSA	7536	770.1		69	31	50.2	- 0.6	80	12	15	1	0	19			0.15	-0.58	0.11	3	3	T	T						12	15	4	4.6	

See footnotes at end of table

CLIMATOLOGICAL DATA
ENGLISH UNITS

State and Station	Elevation (ground)	Pressure: Station Ø	Pressure: Sea level	Temperature: Average maximum	Temperature: Average minimum	Temperature: Average	Temperature: Departure from normal	Temperature: Highest	Temperature: Date	Temperature: Lowest	Temperature: Date	Temperature: No. of days: Max. 90°F. or above	Temperature: No. of days: Min. 32°F. or below	Average dew point	Average relative humidity	Precipitation: Total	Precipitation: Departure from normal	Precipitation: Greatest in 24 hours	Precipitation: No. of days: .01 inch or more	Precipitation: No. of days: With thunderstorms	Precipitation: Snow, Sleet: Total	Precipitation: Snow, Sleet: Maximum depth on ground	Wind: Average speed	Wind: Prevailing direction	Wind: Fastest mile: Speed	Wind: Fastest mile: Direction	Wind: Fastest mile: Date	No. of days (sunrise to sunset): Clear, 0-3	No. of days (sunrise to sunset): Partly cloudy, 4-7	No. of days (sunrise to sunset): Cloudy, 8-10	Sky cover, tenths (sunrise to sunset)	Possible sunshine
	Ft.	Mb.	Mb.	°F.	°F.	°F.	°F.	°F.		°F.				°F.	%	In.	In.	In.			In.	In.	M.p.h.		M.p.h.							%
COLORADO																																
COLORADO SPRINGS	6173	809.0	1010.4	74	43	58.6	4.1	86	12	23	1	0	2	27	36	0.63	-1.50	0.22	8	8	0.0	0	10.8	N	35*	WSW	14	9	14	8	5.0	
DENVER	5283	834.4	1008.9	75	44	59.8	3.1	90	12	33	1	1	0	32	43	0.84	-1.86	0.33	8	8	0.0	0	9.8	SSW	38	SW	12	3	17	11	6.1	71
GRAND JUNCTION	4849	856.1	1009.4	75	49	61.7	- 0.5	87	10	34	1	0	0	23	28	0.17	-0.43	0.17	2	2	0.0	0	8.2	ESE	46	SW	12	5	15	11	6.4	69
PUEBLO	4639	852.4	1008.3	81	45	62.9	2.3	95	12	27	1	3	1	32	37	0.31	-1.49	0.15	3	4	0.0	0	11.5	WSW	50	SE	17	15	10	6	4.4	80
CONNECTICUT																																
BRIDGEPORT	7	1018.3	1019.2	69	50	59.1	0.4	85	21+	39	13	0	0	46	67	0.93	-2.78	0.30	7	2	0.0	0	12.1	NNW	28*	N	9	7	12	12	5.8	
HARTFORD	169	1011.8	1018.0	71	47	58.9	0.1	94	19	32	13	2	1	44	64	2.25	-1.16	1.18	8	4	0.0	0	8.3	S	29	W	7	5	12	14	6.5	61
NEW HAVEN	6	1018.3		68	48	58.4	1.2	84	21+	38	13	0	0			0.77	-2.94	0.32	7	3	0.0	0	7.3		25	NW	7	8	11	12	5.8	65
DELAWARE																																
WILMINGTON	78	1015.1	1018.4	75	53	64.2	1.5	95	19	37	12	3	0	50	65	1.61	-1.92	1.23	8	3	0.0	0	8.5	ENE	21*	N	21+	6	13	12	6.3	
DIST.OF COLUMBIA																																
WASHINGTON U	72			78	59	68.4	3.2	96	15	43	10	4	0			2.99	-0.92	1.15	11													
WASH NATL AP	14	1014.2	1018.6	78	59	68.7	2.9	95	19	44	10	5	0	54	64	3.46	-0.68	1.27	10	6	0.0	0	7.5	S	39	W	24	9	13	9	5.8	61
FLORIDA																																
APALACHICOLA U	13	1016.1		85	70	77.3	2.5	91	22+	60	3	4	0			1.08	-1.80	0.95	2	5	0.0	0	7.2		28	E	14	20	10	1	2.9	94
DAYTONA BEACH	31	1016.8	1018.7	88	66	76.7	2.5	97	22	56	7	11	0	64	69	0.16	-2.69	0.10	2	11	0.0	0	9.3	E	23*	NNE	18	10	14	7	5.2	
FORT MYERS	13	1017.1		92	66	79.1	1.7	98	26	56	8	27	0			0.34	-3.51	0.23	3	9	0.0	0	8.9		23*	SSE	31+	14	12	5	4.4	
JACKSONVILLE	24	1017.4	1018.8	90	66	78.3	2.5	99	20	54	7+	16	0	63	64	1.12	-2.35	0.65	4	7	0.0	0	7.5	SW	34	NE	17	13	15	3	4.2	74
KEY WEST	5	1016.2	1017.4	84	74	79.3	0.3	89	27	67	5	0	0	67	69	1.41	-1.32	1.37	4	4	0.0	0	10.1	ESE	24	SE	31	13	13	5	4.6	81
LAKELAND U	214			90	68	78.7	1.8	97	27	61	6	16	0			2.88	-0.66	1.15	8	11	0.0	0	7.2					12	16	3	4.5	75
MIAMI BEACH	9			83	73	78.2	0.0	90	22+	63	6	2	0			2.44	-2.10	1.41	7		0.0	0	7.8		28	NE	6	13	9	9	4.7	73
MIAMI	7	1016.4	1017.7	85	69	77.0	- 0.6	92	22+	59	6	3	0	65	69	0.92	-5.52	0.45	4	5	0.0	0	9.4	ENE	27*	NE	6	10	14	7	4.9	
ORLANDO	106	1013.9	1018.4	92	68	79.8	3.7	100	27	61	8+	18	0	65	67	2.74	-0.83	1.17	9	10	0.0	0	8.8	NE	35*	NNE	11	12	14	5	4.6	
PENSACOLA U	13			86	70	78.0	3.4	92	16	58	3	4	0			0.08	-4.35	0.08	1	2	0.0	0	9.3	N	18	SE	14+					87
TALLAHASSEE	58	1016.0	1018.7	92	64	78.1	3.2	98	28	53	6	21	0	62	63	0.98	-3.12	0.46	6	8	0.0	0	8.8	E	23*	E	30	12	16	3	4.5	
TAMPA	19	1017.0	1018.5	89	67	77.9	1.1	95	27	59	6	14	0	65	70	2.76	-0.09	0.82	5	9	0.0	0	10.6	NW	40*	NE	28	13	11	7	4.5	68
WEST PALM BEACH	15	1016.7	1017.8	87	68	77.4	- 0.2	95	22	59	8	7	0	66	71	3.70	-1.41	2.03	8	9	0.0	0	9.6	ENE	28*	NW	5	12	10	9	4.9	
GEORGIA																																
ATHENS	803	989.7	1018.5	89	62	75.4	5.3	97	19	46	3	15	0	60	63	1.57	-2.04	0.96	6	8	0.0	0	6.7	WNW	23*	SSW	31	6	20	5	5.3	
ATLANTA	1005	977.0	1018.0	86	62	74.1	4.5	93	19	48	3	10	0	61	65	0.38	-2.78	0.20	4	4	0.0	0	6.5	WNW	29*	W	9	16	11	4	3.8	84
AUGUSTA	143	1010.9	1017.8	90	62	76.2	4.6	98	27	48	4	17	0	63	68	1.97	-1.02	0.87	9	12	0.0	0	5.4	NW	29*	SE	15	12	14	5	4.9	
COLUMBUS	385	1004.6		91	63	76.6	4.5	97	28+	49	3	20	0			0.22	-3.28	0.12	2	4	0.0	0	8.4		23*	NE	16	19	10	2	3.5	
MACON	356	1004.2	1017.8	92	64	78.2	4.3	98	28+	49	3	24	0	59	56	3.30	-0.02	2.88	3	7	0.0	0	8.5	WNW	35	WNW	22	16	13	2	3.6	86
ROME	637	995.6		89	58	73.4	4.7	96	28+	40	3	18	0			1.76	-2.04	1.05	4	5	0.0	0						15	12	4	4.0	
SAVANNAH	48	1016.1	1018.8	89	65	77.0	3.6	98	27+	53	6+	15	0	64	69	1.36	-2.41	0.93	6	12	0.0	0	8.5	WNW	35	N	11	15	11	5	4.2	83
THOMASVILLE U	283			92	66	79.2	3.8	98	20	55	3	23	0			0.41	-3.43	0.33	4	7	0.0	0						19	10	2	3.1	
HAWAII																																
HILO	31	1016.3	1018.0	80	66	73.0	0.0	85	8	63	8	0	0	66	82	13.58	4.25	2.30	29	1	0.0	0	7.6	WSW	21*	ESE	9	1	6	24	8.3	20
HONOLULU	7	1016.9	1017.3	84	71	77.2	1.3	86	31+	66	6	0	0	65	68	0.32	-0.67	0.13	8	0	0.0	0	12.9	ENE	31	NE	24	4	11	16	7.1	80
LIHUE	115	1012.5	1018.1	83	70	76.4	1.9	87	31	63	5	0	0	66	77	3.57	0.98	1.65	20	1	0.0	0	12.6	NE	23	NE	25+	4	15	12	6.8	58
IDAHO																																
BOISE	2838	916.4	1012.0	68	44	56.0	- 1.7	79	8+	31	13	0	1	41	64	2.90	1.61	1.25	12	4	0.0	0	8.9	WNW	34	E	3	6	9	16	7.0	72
IDAHO FALLS 42NW R	4790			66	38	52.1	- 0.6	77	8	31	15+	0	4			2.24	1.36	1.24	12				9.4	SSW	34A	SSW	6					
IDAHO FALLS 46W R	4933	844.9		64	39	51.1	- 1.5	75	8	31	3+	0	3			1.81	0.71	0.68	13	3	0.0	0	9.7	SW	32A	WSW	4					
LEWISTON	1413	962.8		65	45	54.7	- 3.7	75	27	34	4	0	0			2.83	1.28	0.84	12	3	0.0	0						1	7	23	8.3	
POCATELLO	4444	860.1	1012.4	65	40	52.6	- 2.5	79	8	29	12	0	1	37	59	1.16	0.03	0.33	12	5	0.0	0	10.5	WSW	33	SW	13	2	8	21	7.9	50
ILLINOIS																																
CAIRO U	314	1003.3		87	67	77.1	8.1	94	17	50	2	16	0			4.40	0.01	3.24	8	12	0.0	0	8.3	S$	42	SW	29	9	11	11	5.9	72
CHICAGO O HARE	658	990.6	1015.2	75	55	65.0		92	17+	39	8	4	0	53	67	3.38		0.91	10	9	0.0	0	12.6	SSW	52*		12	6	8	17	6.9	
CHICAGO MIDWAY	610	992.8	1015.5	77	57	67.1	7.0	94	17+	39	8	7	0	52	61	2.90	-0.83	0.78	12	9	T	T	10.7	SW	38	S	7	6	8	17	6.6	81
MOLINE	582	991.6	1013.7	78	58	67.9	6.7	93	19	42	9+	3	0	56	68	6.10	2.30	1.75	13	12	0.0	0	10.9	SW	39	SW	8	8	10	13	6.2	59

See footnotes at end of table

CLIMATOLOGICAL DATA
ENGLISH UNITS

State and Station	Elevation (ground)	Pressure		Temperature										Average dew point	Average relative humidity	Precipitation							Wind					No. of days (sunrise to sunset)			Sky cover, tenths (sunrise to sunset)	Possible sunshine
												No. of days							No. of days		Snow, Sleet				Fastest mile							
		Station Ø	Sea level	Average maximum	Average minimum	Average	Departure from normal	Highest	Date	Lowest	Date	Max. 90°F. or above	Min. 32°F. or below			Total	Departure from normal	Greatest in 24 hours	.01 inch or more	With thunderstorms	Total	Maximum depth on ground	Average speed	Prevailing direction	Speed	Direction	Date	Clear, 0-3	Partly cloudy, 4-7	Cloudy, 8-10		
	Ft.	Mb.	Mb.	F.	°F.	°F.	°F.	F.		F.				°F.	%	In.	In.	In.			In.	In.	M.p.h.		M.p.h.							%
ILLINOIS																																
PEORIA	652	993.1	1015.4	79	58	68.2	6.7	89	22	42	9	0	0	57	70	5.67	1.40	1.44	9	11	0.0	0	11.5	S	37	NE	10	8	10	13	6.1	61
ROCKFORD	728	987.8	1014.8	75	54	64.4	5.3	90	22+	39	9	4	0	52	67	4.23	0.40	0.95	11	11	0.0	0	12.8	SSW	35*	SSE	18+	8	9	14	6.2	
SPRINGFIELD	588	991.5	1014.5	84	61	72.3	9.4	95	18+	44	2	11	0	59	66	3.16	-0.72	0.77	9	10	0.0	0	12.3	SSW	51	SW	26	9	11	11	5.8	72
INDIANA																																
EVANSVILLE	381	1000.7	1016.5	85	64	74.4	9.1	95	17	50	2	10	0	62	66	5.39	1.20	1.84	11	10	0.0	0	7.0	SW	34	NE	10	10	9	12	5.7	83
FORT WAYNE	791	985.7	1016.7	77	57	67.0	7.3	91	18+	41	10	3	0	54	66	5.06	1.33	1.42	12	7	T	T	11.2	WSW	40	W	24	5	12	14	6.3	66
INDIANAPOLIS	793	987.0	1016.5	79	59	69.2	7.8	90	18+	46	10+	2	0	59	72	5.14	1.15	1.92	8	9	0.0	0	7.3	SSW	40*	NNW	26	7	11	13	6.1	71
SOUTH BEND	768	987.9	1015.8	76	54	64.9	6.2	92	17	40	10+	4	0	53	68	2.19	-1.43	0.36	12	9	0.0	0	11.7	SSW	37*	WSW	24	4	10	17	6.8	
IOWA																																
BURLINGTON	694	989.0	1014.5	81	59	69.6	7.8	91	19+	43	9	5	0	56	66	4.66	0.63	1.51	12	11	0.0	0	12.2	SSW	34	W	22	8	10	13	6.2	69
DES MOINES	948	981.7	1012.8	79	59	69.2	7.4	90	13	43	2	1	0	56	66	6.02	1.95	1.99	10	10	0.0	0	9.9	SSW	56	SW	18	8	5	18	6.5	66
DUBUQUE	1065	988.8		73	54	63.4	5.3	87	22+	40	9+	0	0			9.43	5.21	4.60	13	11	0.0	0			40	SW	22	9	7	15	6.0	
SIOUX CITY	1095	970.0	1010.8	79	57	67.7	6.8	92	11+	37	2	3	0	54	68	5.64	2.41	1.53	15	17	0.0	0	12.8	SSE	70	SW	13	5	10	16	7.1	52
WATERLOO	868	981.6	1013.2	76	56	65.8	5.9	91	5	39	2	2	0	55	70	6.62	2.88	2.04	13	12	0.0	0	12.8	S	52*	S	22	7	8	16	6.5	
KANSAS																																
DODGE CITY	2594	922.9	1009.0	85	57	71.1	7.4	97	12+	38	1	9	0	50	54	1.84	-1.38	1.04	6	7	0.0	0	14.0	S	55	S	7	10	15	6	4.4	80
GOODLAND	3645	883.7	1008.7	81	48	64.6	6.1	99	12+	32	1	6	1	43	55	4.25	1.84	2.56	10	10	0.0	0	14.2	WSW	48*	NW	22	10	14	7	4.8	
TOPEKA	877	976.2	1011.3	85	60	72.7	8.3	93	19	39	2	4	0	58	62	4.23	-0.15	2.83	8	10	0.0	0	16.2	S	59	SW	28	9	18	4	5.2	71
WICHITA	1321	962.5	1010.2	87	63	75.4	9.4	100	25	43	1	13	0	57	57	0.99	-2.98	0.90	2	9	0.0	0	16.2	S	58	S	20	10	12	9	5.1	72
KENTUCKY																																
COVINGTON	869	985.9	1017.4	81	56	68.4	4.9	93	18	43	10+	6	0	58	72	3.64	0.05	1.01	12	13	0.0	0	7.1	SW	32*	NW	26	9	9	13	6.4	
LEXINGTON	979	982.0	1017.6	83	61	71.6	7.1	92	18+	47	3	5	0	59	70	5.68	1.83	1.21	13	12	0.0	0	6.1	S	35*	WSW	1	11	9	11	5.5	
LOUISVILLE	474	997.7	1016.9	83	60	71.4	7.0	91	18+	44	3	4	0	62	74	3.33	-0.57	0.92	12	12	0.0	0	7.0	SSE	35	S	29	11	9	11	5.5	63
LOUISIANA																																
ALEXANDRIA	92	1013.5	1018.1	87	60	73.1		94	28	47	3	8	0	63	74	3.26		1.83	5	5	0.0	0	5.5	S				14	12	5	4.0	
BATON ROUGE	64	1015.3	1018.3	89	64	76.5	2.2	95	28	53	3	17	0	64	70	1.64	-3.16	1.12	4	4	0.0	0	7.8	S				15	10	6	3.9	
BURRWOOD R	5		1019.0	83	72	77.3	2.2	87	30+	62	3	0	0	69	77	T	-4.08	T	0	0	0.0	0	9.9	S								
LAKE CHARLES	14	1016.4	1017.7	85	65	75.2	0.1	91	20+	53	3	4	0	66	75	1.73	-2.88	0.57	5	5	0.0	0	9.5	S	32*	SSE	1	12	13	6	4.6	
NEW ORLEANS	3	1016.3	1018.4	87	65	76.1	2.2	94	18	54	4	10	0	67	75	1.31	-3.07	0.94	4	3	0.0	0	7.5	SSE	31*	SW	29	20	7	4	3.1	
NEW ORLEANS AUDUBON	10	1011.8		88	67	77.5		94	20	60	4+	11	0			0.83		0.72	3	2	0.0	0										
SHREVEPORT	252	1008.0	1017.2	87	64	75.4	2.3	92	27+	49	2	8	0	63	69	1.22	-3.57	1.10	4	3	0.0	0	10.7	S				14	12	5	4.5	78
MAINE																																
CARIBOU	624	992.9	1016.5	59	40	49.1	- 0.8	87	19	27	8	0	6	38	69	2.91	-0.12	0.76	15	4	T	0	12.0	WNW	52*	WNW	9	4	3	24	7.9	
PORTLAND	61	1013.9	1018.0	62	40	51.1	- 1.9	88	31	27	8	0	4	40	69	1.84	-1.57	0.79	13	6	0.0	0	9.6	S	32	NW	9	8	11	12	6.1	61
MARYLAND																																
BALTIMORE	146	1013.5	1018.4	78	55	66.2	1.8	98	19	35	10	5	0	52	65	2.44	-1.54	1.68	11	4	0.0	0	9.1	W	26	W	25+	6	15	10	6.1	59
BALTIMORE U	14			78	60	68.8	2.7	98	19	46	12	5	0			2.23	-1.92	1.22	11													
FREDERICK	294			77	53	64.9	2.3	94	19+	33	10	4	0			2.92	-0.99	1.12	8	0	0.0	0										
MASSACHUSETTS																																
BLUE HILL OBS R	629	993.7	1017.2	65	46	55.8	- 0.9	91	19	37	2+	1	0		68	1.90	-1.58	0.61	10		0.0	0	13.8	ENE	43	NW	9					59
BOSTON	15	1013.0	1017.8	66	49	57.2	- 1.6	91	31	40	12	1	0	41	62	1.86	-1.48	0.99	11	3	0.0	0	13.3	E	36	WNW	10	7	13	11	6.0	64
NANTUCKET	43	1017.6	1018.3	60	45	52.4	- 0.2	73	21	36	13	0	0	44	77	0.59	-2.29	0.20	9	2	0.0	0	11.9	SW	28	SW	10	7	12	12	6.2	64
PITTSFIELD	1170			68	42	55.2	0.6	90	18	30	11	1	4			1.57	-2.30	0.53	9		0.0	0										
WORCESTER	986	980.8	1017.7	65	45	55.0	- 0.2	92	19	34	9+	1	0	40	63	3.99	0.20	1.43	12	6	T	0	8.6	SW	28*	NE	19	4	15	12	6.4	
MICHIGAN																																
ALPENA	689	990.7		69	43	55.7	3.6	94	16	22	10	4	7			3.49	0.58	1.28	12	8	T	T	7.6	SW$	25	N	6	5	12	14	6.8	69
DETROIT	619	990.4	1017.0	75	55	65.2	6.7	93	18+	39	9	6	0	50	60	1.26	-2.27	0.61	10	4	0.0	0	9.8	SW	43	NW	31	8	8	15	6.6	59
DETROIT M WAYNE CO	633	992.7	1016.8	75	52	63.0	5.1	92	18+	36	7	4	0	49	63	1.63	-1.91	0.77	8	7	0.0	0	9.2	WSW				4	13	14	6.7	
DETROIT WILLOW RUN	711	988.2	1016.5	77	52	64.7	5.5	96	18+	38	7	6	0	50	62	1.39	-2.09	0.55	9	6	0.0	0	8.7	SW	35*	WSW	23	6	11	14	6.7	
ESCANABA U	594	992.8		61	46	53.3	3.0	74	18	32	9+	0	2	44	73	2.51	-0.46	0.97	10	5	0.0	0	9.5		31	N	20+	5	8	18	6.9	50

See footnotes at end of table

CLIMATOLOGICAL DATA

ENGLISH UNITS

State and Station	Elevation (ground)	Pressure		Temperature												Precipitation							Wind					No of days (sunrise to sunset)				
												No of days							No of days		Snow, Sleet				Fastest mile							
	Elevation (ground)	Station O	Sea level	Average maximum	Average minimum	Average	Departure from normal	Highest	Date	Lowest	Date	Max. 90 F. or above	Min. 32 F. or below	Average dew point	Average relative humidity	Total	Departure from normal	Greatest in 24 hours	01 inch or more	With thunderstorms	Total	Maximum depth on ground	Average speed	Prevailing direction	Speed	Direction	Date	Clear, 0-3	Partly cloudy, 4-7	Cloudy, 8-10	Sky cover tenths (sunrise to sunset)	Possible sunshine
	Ft.	Mb.	Mb.	F.	F.	F.	F.	F.		F.				F.	%	In.	In.	In.			In	In.	M.p.h.		M.p.h.							%
MICHIGAN																																
FLINT	766	989.2	1017.0	73	50	61.6	4.8	90	16+	34	9	2	0	50	68	2.13	-1.26	0.87	9	5	0.0	0	9.3	SW	30*	W	31	6	10	15	6.7	
GRAND RAPIDS	681	991.1	1016.3	74	52	63.0	6.0	92	29	36	9+	4	0	49	61	2.41	-1.05	1.00	10	7	0.0	0	11.3	WSW	39	N	29	7	8	16	6.5	60
LANSING	852	984.4	1016.3	73	51	61.8	4.7	89	29+	34	9	0	0	50	66	1.91	-1.82	1.22	9	6	0.0	0	13.0	S	45	W	24	7	9	15	6.6	72
MARQUETTE U	677	987.8		64	44	54.0	4.1	94	16	32	9+	3	3			2.17	-0.79	0.45	12	7	1.1	1	7.7	SE$	31	SW	23	2	11	18	7.6	55
MUSKEGON	627	993.0	1016.0	72	51	61.2	6.4	93	29	36	9+	1	0	50	68	1.17	-1.80	0.40	9	6	0.0	0	10.7	SSW	27*	S	29	7	9	15	6.4	
SAULT STE MARIE	721	993.4	1016.3	63	43	53.3	4.2	88	17	28	9	0	4	43	71	4.34	1.57	2.35	12	7	1.4	T	9.1	ESE	24*	NW	6	4	9	18	7.2	54
MINNESOTA																																
DULUTH	1426	972.2	1014.1	61	40	50.0	0.3	84	17+	26	9	0	5	39	72	7.67	4.38	2.28	18	11	0.2	T	10.1	ESE	38	NE	22	2	7	22	8.5	35
INTERNATIONAL FALLS	1179	972.2	1013.5	64	41	52.2	1.5	84	17	28	6	0	5	42	72	5.89	3.28	1.28	17	6	1.3	T	9.2	SE	29*	S	17	4	9	18	7.6	
MINNEAPOLIS	822	978.8	1012.8	70	52	60.6	3.0	86	18+	34	2	0	0	50	70	8.03	4.84	2.39	15	11	0.0	0	14.2	ESE	37*	SSW	22	2	9	20	7.9	39
ROCHESTER	1297	965.9	1013.4	70	52	61.3	4.6	86	18+	39	9+	0	0	51	73	3.84	0.19	1.14	14	10	0.0	0	15.6	S				4	11	16	7.3	
ST CLOUD	1034	974.5	1012.6	69	49	58.9	3.3	85	17+	35	1	0	0		70	8.01	4.50	3.19	17	7	0.0	0						4	4	23	8.0	
MISSISSIPPI																																
JACKSON	305	1006.1		87	63	75.3	2.8	95	28	49	3	12	0			2.59	-1.57	0.82	5	5	0.0	0	6.1	SSW	29	NE	30	18	8	5	3.5	83
MERIDIAN	292	1005.0	1018.9	90	60	75.3	2.9	97	20	45	3	19	0	62	71	0.75	-3.16	0.65	2	3	0.0	0	5.2	S	23*	NW	1	18	8	5	3.5	
VICKSBURG U	234	1008.8		86	66	75.6	2.2	93	28	55	3	5	0			2.00	-2.13	1.68	6	6	0.0	0	7.5		26	NE	17	18	9	4	3.9	84
MISSOURI																																
COLUMBIA	778	985.2	1013.3	84	61	72.8	8.4	91	22+	45	2	4	0	58	64	2.59	-2.11	0.91	7	12	0.0	0	10.6	SSE	36	SW	27	7	17	7	5.5	73
KANSAS CITY	742	977.5	1011.8	85	64	74.7	9.6	94	19	48	2	9	0	58	59	5.29	0.89	2.83	9	10	0.0	0	10.9	S	48	SW	28	7	15	9	5.8	72
ST JOSEPH	809	977.5		84	61	72.7	8.6	93	12	42	2	8	0			11.53	7.14	7.12	8	9	0.0	0	14.5	S	46*	SW	28	8	16	7	5.3	
ST LOUIS	535		1015.2	83	61	72.1	6.4	90	28	44	2	1	0	59	65	2.44	-1.29	0.86	10	8	0.0	0	9.7	S	35	SE	22	6	14	11	5.8	67
ST LOUIS RFC	465			85	65	74.9	8.3	92	17	50	2	7	0			1.89	-1.96	0.93	7		0.0	0						0	0			
SPRINGFIELD	1265	967.7	1014.5	84	60	72.3	7.8	90	25	41	2	1	0	59	66	2.80	-2.48	1.17	6	12	0.0	0	11.4	SSE	39	NW	31	8	16	7	5.4	78
MONTANA																																
BILLINGS	3567	894.0	1011.0	65	45	55.0	- 0.8	77	19+	38	14	0	0	39	61	3.67	1.79	1.30	16	7	0.0	0	11.1	NE	34	NW	20+	2	9	20	7.5	59
GLASGOW	2277	938.4		63	44	53.6	- 1.5	75	18	31	8	0	1	38	63	2.50	1.01	1.09	11	3	0.0	0						1	6	24	8.4	
GREAT FALLS	3662	885.9	1013.3	61	41	50.8	- 3.2	72	31+	33	5	0	0	37	65	5.18	3.08	1.81	16	5	T	0	10.0	SW	38	SW	19	0	10	21	8.2	42
HAVRE	2582	923.8		65	41	53.2	- 1.0	77	19	29	5	0	2			2.15	0.62	1.03	15	2	0.0	0	9.7	E$	42	W	4	1	11	19	7.5	51
HELENA	3893	870.6	1012.6	63	41	51.7	- 1.2	73	31	34	12+	0	0	37	61	3.77	2.21	1.36	13	3	0.0	0	8.8	WNW	38	S	19	3	4	24	8.2	52
KALISPELL	2965	909.2		63	39	50.7	- 1.5	75	23	27	5	0	5			2.04	0.37	0.32	13	3	0.0	0	6.5					1	9	21	7.9	
MILES CITY	2629			67	46	56.4	- 1.0	79	9	36	1	0	0	42	66	4.97	3.24	1.16	16	8	0.0	0	11.4	NE	35*	NNW	29+	2	12	17	7.7	
MISSOULA	3190	899.8	1014.1	62	39	50.1	- 2.5	72	23	28	3	0	5	39	72	1.88	0.01	0.58	22	8	0.0	0	7.3	NW	31	SW	3	0	8	23	8.6	51
NEBRASKA																																
GRAND ISLAND	1841	944.2		81	53	66.9	4.8	96	7	34	2+	7	0	50	61	3.43	-0.42	0.94	10	11	0.0	0	13.7	S				6	10	15	6.5	
LINCOLN U	1150			82	59	70.3	7.8	93	12+	39	2	4	0			2.91	-0.57	2.22	9	12	0.0	0	14.0	S$	44	SW	18	8	8	15	6.3	72
NORFOLK	1544	954.7		78	55	66.3	6.1	93	7	36	2	4	0			3.77	0.11	1.27	15	16	0.0	0						5	10	16	6.8	
NORTH PLATTE	2779	910.8	1008.3	79	49	63.9	5.4	96	11	29	1	5	2	46	57	8.01	5.06	2.95	10	13	0.0	0	12.9	SE	57	SE	15	7	8	16	6.5	62
OMAHA	978	971.5	1010.8	81	59	70.1	7.1	93	10	42	2	3	0	54	60	5.26	1.78	2.49	13	12	0.0	0	13.9	SSE	56	NW	7	6	12	13	6.3	68
OMAHA N OMAHA AP	1323	963.3		80	58	68.5	7.8	92	7	45	1	2	0			3.98	0.60	2.78	10	11	0.0	0						7	8	16	6.5	
SCOTTSBLUFF	3950	875.0	1009.2	74	47	60.1	3.3	92	11	29	1	3	1	40	57	6.28	3.58	1.14	13	12	0.0	0	13.6	NW	46*	NW	22	3	12	16	7.0	
VALENTINE	2587	919.4		74	47	60.3	3.2	98	11	26	1	3	2	46	68	8.96	6.29	2.83	15	12	0.0	0	11.9	NE$	44	NW	21	4	11	16	7.2	55
NEVADA																																
ELKO	5075	842.2	1012.2	63	37	50.2	- 1.8	80	8	28	1	0	4	33	57	2.34	1.38	1.23	14	5	2.4	1	7.7	SW	29*	WNW	23	2	10	19	7.6	
ELY	6257	806.3	1010.9	63	35	49.0	- 1.3	79	8+	26	17	0	14	27	52	1.26	0.41	0.46	13	4	T	T	9.5	S	47	S	19	1	11	19	7.8	64
LAS VEGAS	2162	944.1	1008.9	84	57	70.6	- 3.2	97	6+	43	17	11	0	24	21	0.06	-0.02	0.06	1	1	0.0	0	12.6	SSW	38*	W	20	16	12	3	3.5	85
RENO	4404	860.8	1013.9	68	35	51.5	- 1.9	81	4	25	13	0	8	33	51	1.40	0.88	0.89	4	4	9.0	3	7.9	WNW	36	SE	8	6	13	12	6.0	69
WINNEMUCCA	4299	864.9		66	39	52.7	- 1.0	81	8	30	26	0	4	33	53	0.48	-0.46	0.17	10	2	0.1	T	8.5	W	36	W	8	4	9	18	7.5	74
NEW HAMPSHIRE																																
CONCORD	339	1007.2	1018.1	68	42	54.6	- 0.9	97	19	27	11	1	4	39	62	2.58	-0.59	0.83	10	6	0.0	0	6.2	NW	28	W	10+	10	10	11	5.8	59
MT WASHINGTON OBS	6262	826.8		44	31	37.5	2.5	64	19	7	9	0	19		79	3.98	-1.86	0.95	13	5	1.1	1	27.6	NW	92Y	NW	9	8	9	14	6.4	53
NEW JERSEY																																
ATLANTIC CITY	58	1016.3	1018.8	74	53	63.2	1.9	96	19	38	12	1	0	48	64	1.77	-1.74	0.91	8	5	0.0	0	9.9	S	25*	NW	4	5	16	10	6.0	49

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CLIMATOLOGICAL DATA

ENGLISH UNITS

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State and Station	Elevation (ground)	Pressure		Temperature												Precipitation							Wind					No. of days (sunrise to sunset)				
												No. of days							No. of days		Snow, Sleet				Fastest mile							
		Station Ø	Sea level	Average maximum	Average minimum	Average	Departure from normal	Highest	Date	Lowest	Date	Max. 90 F. or above	Min. 32 F. or below	Average dew point	Average relative humidity	Total	Departure from normal	Greatest in 24 hours	.01 inch or more	With thunderstorms	Total	Maximum depth on ground	Average speed	Prevailing direction	Speed	Direction	Date	Clear, 0-3	Partly cloudy, 4-7	Cloudy, 8-10	Sky cover, tenths (sunrise to sunset)	Possible sunshine
	Ft.	Mb.	Mb.	F.	F.	F.	F.	F.		F.				F.	%	In.	In.	In.			In.	In.	M.p.h.		M.p.h.							%
NEW JERSEY																																
ATLANTIC CITY U	10			64	54	58.8	- 0.7	79	19	44	12+	0	0			1.49	-1.67	0.73	6				12.9		29*	WNW	4					
NEWARK	11	1017.2	1018.5	74	54	64.3	2.3	98	19	44	9+	2	0	47	60	1.46	-2.19	0.78	5	5	0.0	0	9.0	SW	32*	WNW	24	8	16	7	5.5	
TRENTON J	56	1014.0		74	54	63.8	1.5	96	19	43	12+	3	0			1.64	-1.98	0.74	7	3	0.0	0	8.3	S	29	NW	6	7	15	9	5.7	65
NEW MEXICO																																
ALBUQUERQUE	5310	846.3	1009.6	81	47	64.1	- 1.0	91	12	34	1	2	0	21	21	0.01	-0.74	0.01	1	0	0.0	0	8.5	S	47	S	12	24	4	3	2.5	92
CLAYTON	4969	842.5		82	48	64.9	5.1	94	12+	33	1	4	0			1.34	-1.40	0.41	4	6	0.0	0						17	10	4	3.5	
RATON	6379	803.3		78	39	58.4	3.0	90	12	20	1	1	2			0.38	-1.91	0.33	4	4	0.0	0						15	11	5	4.1	
ROSWELL	3612	889.3		92	49	70.5	4.0	100	12	32	1	23	1	28	25	0.21	-1.07	0.21	1	4	0.0	0	12.2		50	SW	19	25	5	1	2.3	93
SILVER CITY	5373	834.7		81	46	63.4		90	11	34	18	1	0			0.00		0.00	0	0	0.0	0						25	5	1	1.8	
NEW YORK																																
ALBANY	277	1013.5	1017.5	72	48	59.8	1.9	94	18	31	12	3	1	44	61	1.40	-2.07	0.37	12	5	0.0	0	8.9	S	35	NW	31	5	15	11	6.4	65
BINGHAMTON	1590	958.4	1017.3	70	49	59.1	4.0	87	20+	31	9	0	1	46	65	0.78	-2.71	0.36	9	3	0.4	T	10.3	NNW	27	SW	24	4	16	11	6.4	72
BUFFALO	705	989.5	1017.5	72	50	60.9	6.6	88	23	29	10	0	2	48	65	2.36	-0.59	1.46	9	4	0.0	0	10.7	SW	43	NW	23	7	13	11	6.1	70
NEW YORK U	132	1014.6		75	54	64.5	2.1	99	19	42	9+	3	0	45	55	1.26	-2.41	0.50	8	3	0.0	0	8.1	S$	33	S	24	16	9	6	4.4	66
NEW YORK	19	1016.4	1018.3	73	55	63.6	1.5	95	19	44	9+	2	0	47	61	1.03	-2.55	0.50	9	5	0.0	0	10.8	NE	25	S	23	6	16	9	5.7	
ROCHESTER	543	998.2	1017.4	74	51	62.4	5.7	91	18	31	9	4	2	49	64	2.70	-0.07	1.76	7	4	T	0	11.5	WSW	54	SW	24	8	14	9	5.3	74
SCHENECTADY	217			72	49	60.4	1.3	92	18	35	12	2	0			1.83	-1.45	0.66	11		0.0	0						18	10	3	3.4	
SYRACUSE	424	995.4	1017.2	74	51	62.3	4.6	90	20+	34	9	4	0	46	59	1.05	-2.22	0.32	9	4	0.0	0	10.2	WNW	36	W	24	6	15	10	5.7	66
NORTH CAROLINA																																
ASHEVILLE U	2203	940.4		82	57	69.4	5.0	89	22	44	4	0	0			2.83	-0.04	0.68	11	14	0.0	0	6.5	N$	27	N	24+	8	20	3	5.1	62
CAPE HATTERAS R	7	1016.9	1017.7	77	60	68.4	0.4	88	26	46	4	0	0	60	77	0.61	-3.37	0.36	6	4	0.0	0	11.3	N	28	NW	27	9	15	7	5.1	72
CHARLOTTE	735	956.2	1017.9	87	62	74.5	5.5	95	19	50	6+	13	0	59	63	1.84	-1.27	0.42	10	10	0.0	0	6.5	SW	36	NE	15	10	10	11	5.2	70
GREENSBORO	891	986.7	1018.3	85	59	71.6	4.7	94	19	42	3	10	0	57	66	2.18	-1.11	1.16	10	12	0.0	0	7.1	SW	36	NW	25	9	10	12	6.1	65
RALEIGH	433	1003.9	1017.7	85	60	72.0	4.4	95	19	47	4	8	0	57	65	1.37	-2.15	0.78	7	7	0.0	0	7.0	ENE	35*	NW	8	8	16	7	5.3	59
WILMINGTON	30	1015.8	1018.7	85	62	73.5	3.0	96	19+	49	6	6	0	62	75	2.35	-1.17	0.76	10	9	0.0	0	6.5	SSW	31	SW	8	8	16	7	5.2	66
WINSTON SALEM	967	983.4	1018.4	84	60	72.0	4.2	94	19	46	3	9	0	56	63	3.32	-0.69	2.05	13	13	0.0	0	7.8	ENE	40*	W	25	11	10	10	5.5	
NORTH DAKOTA																																
BISMARCK	1647	951.9	1012.2	66	44	55.0	- 0.4	79	3	25	1	0	1	44	71	4.80	2.83	1.58	13	6	0.0	0	11.3	ESE	36	E	13	1	7	23	8.6	35
DEVILS LAKE U	1471	959.5		59	43	51.1	- 2.3	76	2	24	6	0	2			5.82	3.71	1.37	17	3	T	T	10.0	NW$	42	NE	13	2	6	23	8.4	31
FARGO	900	977.5	1011.9	66	47	56.6	1.2	87	4	32	6	0	1	48	76	5.95	3.92	1.69	16	9	0.0	0	9.9	ESE	43	NE	22	1	4	26	9.1	26
WILLISTON U	1899	945.3		62	41	51.8	- 3.4	76	19	28	1	0	3			3.50	2.07	1.24	12	1	0.0	0	11.7	N$	39	NW	5	1	7	23	8.3	37
OHIO																																
AKRON	1209	980.1	1018.1	77	54	65.7	7.5	92	18	38	9+	5	0	51	63	1.84	-2.01	0.51	12	4	0.0	0	8.1	SW	29	W	20	7	12	12	6.5	
CINCINNATI OBS	761			82	60	70.8	6.6	94	18+	45	10	8	0			5.02	1.22	1.49	16	14	0.0	0	5.1	SW	26	W	27+					64
CINCINNATI U	553	994.6		83	62	72.3	7.4	96	19	49	10	8	0			5.25	1.71	1.18	14	14	0.0	0										
CLEVELAND	777	989.2	1017.0	76	54	65.0	7.5	91	20+	38	7	4	0	52	62	1.91	-1.61	0.76	8	5	0.0	0	10.8	S	31	SW	2	7	11	13	6.5	73
COLUMBUS	812	987.7	1017.5	79	56	67.2	5.2	93	18	42	9+	6	0	54	65	2.31	-1.69	0.59	14	6	0.0	0	7.6	S	36	W	24	5	12	14	6.6	68
COLUMBUS U	724			79	60	69.6	6.6	95	18	43	9	6	0			2.40	-1.06	0.88	10	9	0.0	0										
DAYTON	997	980.9	1017.0	79	58	68.1	6.5	93	18	42	10	5	0	55	66	3.94	0.21	1.24	13	9	0.0	0	9.5	SSW	32	W	24	8	7	16	6.1	47
MANSFIELD	1296			76	54	65.1	7.1	92	18	36	7	2	0			1.87	-1.85	0.63	12	8	T	0						6	9	16	6.8	
SANDUSKY U	606	995.5		76	58	66.5	6.4	93	20	43	9	5	0			2.34	-1.18	0.66	9	5	0.0	0	8.9		66	W	23	13	10	8	4.5	74
TOLEDO	676	991.8	1016.9	77	54	65.6	7.3	95	18	37	3	7	0	53	66	2.83	-0.21	0.59	14	7	0.0	0	9.1	WSW	32	SW	24	6	9	16	6.8	67
YOUNGSTOWN	1178	975.3	1017.8	76	52	63.6	5.2	92	18	34	9	3	0	50	65	2.13	-1.94	1.18	12	7	0.0	0	9.4	SW	29*	W	23+	6	12	13	6.3	
OKLAHOMA																																
OKLAHOMA CITY	1280	969.7	1012.4	86	63	74.3	6.9	93	25	48	1	7	0	59	60	2.64	-2.55	1.55	4	7	0.0	0	16.4	SSE	66	SW	25	10	14	7	5.0	80
TULSA	676	988.8	1013.0	87	64	75.3	7.5	92	21+	46	2	7	0	62	66	1.69	-3.57	1.00	6	7	0.0	0	15.0	SSE	31	SE	22	9	16	6	4.9	79
OREGON																																
ASTORIA	8	1018.6	1019.2	57	44	50.3	- 2.5	61	31+	35	7	0	0	44	80	2.88	-0.32	0.49	21	0	0.0	0	9.0	WNW	28*	SW	8	0	2	29	9.2	
BURNS U	4151	870.6		62	36	48.9	- 4.5	71	31	27	13+	0	5	34	60	1.32	0.43	0.36	14	1	T	T						6	11	14	6.8	
EUGENE	361	1005.4		61	43	52.0	- 4.1	69	27+	33	4	0	0			1.92	-0.22	0.70	14	0	0.0	0	7.2		24*	W	28	1	8	22	8.3	
MEACHAM	4050			51	34	42.6	- 5.4	60	27	27	14+	0	10			2.74	0.29	0.61	15	2	2.4	1						1	6	24	8.7	
MEDFORD	1298	970.2	1017.9	67	42	54.3	- 3.7	78	7	32	16	0	1	41	66	0.80	-0.67	0.39	12	2	T	T	6.0	WNW	20*	NNW	17+	2	8	21	7.6	

See footnotes at end of table

CLIMATOLOGICAL DATA

ENGLISH UNITS

State and Station	Elevation (ground)	Pressure		Temperature												Precipitation							Wind					No. of days (sunrise to sunset)				
												No. of days							No. of days		Snow, Sleet				Fastest mile							
		Station Ø	Sea level	Average maximum	Average minimum	Average	Departure from normal	Highest	Date	Lowest	Date	Max. 90 F. or above	Min. 32 F. or below	Average dew point	Average relative humidity	Total	Departure from normal	Greatest in 24 hours	.01 inch or more	With thunderstorms	Total	Maximum depth on ground	Average speed	Prevailing direction	Speed	Direction	Date	Clear, 0-3	Partly cloudy, 4-7	Cloudy, 8-10	Sky cover, tenths (sunrise to sunset)	Possible sunshine
	Ft.	Mb.	Mb.	F.	F.	F.	F.	F.		F.				F.	%	In.	In.	In.			In.	In.	M.p.h.		M.p.h.							%
OREGON																																
PENDLETON	1482	961.7	1015.7	63	45	54.0	-5.1	75	27	32	4	0	1	39	60	3.02	1.90	0.70	13	2	0.0	0	10.0	W	32*	W	27+	3	8	20	7.4	
PORTLAND	21	1012.9	1018.4	61	47	53.9	-3.5	70	27	34	4	0	0	44	71	2.56	0.57	0.51	15	0	0.0	0	6.9	NW	21	NW	12	0	2	29	9.0	27
PORTLAND U	30			61	47	53.8	-5.3	68	27	39	4	0	0			2.79	0.74	0.63	15		0.0	0										
ROSEBURG	505	1000.0		65	43	53.8	-2.7	72	31	33	13	0	0			1.27	-0.58	0.36	13	1	0.0	0	4.7	NW$	17	W	24+	0	6	25	8.4	43
SALEM	195	1011.5	1019.0	60	42	51.4	-5.4	70	27	29	4	0	1	44	76	2.11	0.00	0.47	13	0	0.0	0	6.8	S	21*	S	9	0	4	27	8.5	
SEXTON SUMMIT R	3836	883.5		52	35	43.7	-6.3	66	7	28	13	0	9			1.81	-0.38	0.49	12	0	1.0	T	10.5	NNW				4	7	20	7.7	
PACIFIC AREA																																
CANTON ISLAND	8	1008.6	1009.0	88	79	83.3	-0.6	89	20+	76	25+	0	0	74	77	2.44	-1.91	1.22	15	0	0.0	0	11.9	ENE	28*	ENE	11	15	12	4	4.5	
TAGUAC GUAM R	361			86	74	79.9	-0.5	87	31+	68	30+	0	0			6.68	2.49	2.35	22	0	0.0	0	9.2	E$	22	NE	14+					73
KOROR R	94	1005.1	1008.9	87	76	81.5	0.2	90	22+	74	29+	5	0	76	89	18.30	3.67	4.00	29	2	0.0	0	6.3	NE	18	S	15	0	1	30	9.7	34
PONAPE R	123	1003.4	1008.7	86	75	80.8	0.4	89	12	72	31+	0	0	76	85	22.41	2.10	3.49	29	2	0.0	0	6.7	NE	27	E	8	0	0	31	9.6	46
TRUK MOEN ISLAND	5	1008.1	1008.4	86	76	81.4	0.6	89	31+	72	17	0	0	76	81	18.33	4.21	6.61	27	1	0.0	0	6.8	NNE	29	SE	16	0	6	25	8.7	18
WAKE ISLAND	11	1014.3	1014.7	86	75	80.2	0.4	89	31	71	13	0	0	71	75	1.02	-1.02	0.31	12	0	0.0	0	12.6	ENE	23*	NE	13+	10	18	3	4.5	
YAP R	55	1006.6	1008.6	87	76	81.4	-0.6	89	31+	73	13	0	0	77	86	14.43	4.91	4.86	28	2	0.0	0	8.9	NE	33	E	13	0	0	31	10.0	75
PENNSYLVANIA																																
ALLENTOWN	376	1004.2	1018.6	75	51	63.0	2.6	97	19	33	10	3	0	49	65	1.26	-2.82	0.58	7	4	0.0	0	9.6	ENE	27*	W	25+	8	15	8	6.0	
ERIE	732	991.1	1017.2	72	53	62.6	6.2	88	20	36	10+	0	0	49	63	1.45	-2.09	0.44	7	4	0.0	0	13.2	WSW	32*	SSE	29	6	13	12	6.1	
HARRISBURG	335	1004.0	1018.0	76	54	64.9	2.2	95	19	32	10	4	1	51	65	2.96	-0.94	1.20	14	8	0.0	0	6.6	W	30	SW	3	6	15	10	6.1	58
PHILADELPHIA	5	1013.8	1018.1	75	53	64.1	1.5	96	19	37	12+	3	0	50	63	1.85	-1.89	1.47	8	4	0.0	0	9.1	WSW	29	NW	6	7	13	11	6.4	58
PHILADELPHIA U	35			76	57	66.5	2.8	98	19	46	12+	3	0																			
PITTSBURGH	1151	987.4	1018.2	78	53	65.3	5.5	91	18	40	9	6	0	52	65	1.87	-2.04	0.54	13	6	0.0	0	8.5	WSW	28*	WSW	24	1	17	13	6.8	63
PITTSBURGH U	749			79	57	67.9	4.9	92	18	43	9	6	0			2.28	-1.47	0.73	11		0.0	0										42
READING U	266	1005.9	1017.9	76	55	65.2	1.9	96	19+	40	10	4	0			5.43	1.64	3.30	11	4	0.0	0	9.5	N$	45	NE	19	8	14	9	5.6	64
SCRANTON	940	984.1	1018.2	74	51	62.6	4.0	93	18	34	10	4	0	45	56	0.84	-3.11	0.26	6	3	T	0	8.6	ESE	26	SW	24+	7	15	9	5.6	67
WILLIAMSPORT	527	999.6	1018.7	76	51	63.3	2.9	95	19+	31	10	6	1	47	61	2.61	-1.47	0.81	9	5	T	0	8.0	W	27*	WNW	31+	5	16	10	6.1	
RHODE ISLAND																																
BLOCK ISLAND	110	1013.5	1017.7	62	48	54.7	0.3	77	19	39	13	0	0			1.59	-1.42	0.86	9	2	0.0	0						9	11	11	6.1	
PROVIDENCE	55	1012.1	1018.2	66	48	56.6	-0.9	86	31	36	13	0	0	43	65	2.14	-1.21	1.15	11	4	0.0	0	11.0	SSE	35*	NW	10	8	10	13	6.1	58
SOUTH CAROLINA																																
CHARLESTON	41	1015.7	1017.8	88	64	75.9	4.0	97	26	50	6	13	0	64	72	1.81	-1.80	0.80	8	13	0.0	0	7.3	S	52	NW	21	13	14	4	4.6	79
CHARLESTON U	9			84	69	76.4	3.1	95	27+	60	10+	8	0			2.61	-0.48	1.03	9		0.0	0	9.8		36	N	21					
COLUMBIA	217	1005.0	1017.6	91	62	76.7	4.5	98	27	47	6+	21	0	60	63	2.32	-1.22	0.67	9	10	0.0	0	5.5	WSW	20*	WNW	26+	12	14	5	4.7	72
FLORENCE	146	1012.0	1017.7	90	63	76.4	4.5	100	26	51	6	18	0	60	64	0.81	-2.08	0.35	7	10	0.0	0	7.8	NE	29*	S	23+	11	15	5	4.7	
GREENVILLE	1009	980.9	1017.6	89	64	76.5	5.8	99	19	48	3	17	0	59	60	1.48	-1.72	1.09	5	7	0.0	0	7.0	NE	23	SE	17+	4	17	10	5.8	69
SPARTANBURG	801	988.4	1017.8	88	63	75.1	5.5	96	19	51	3	15	0	57	60	1.22	-2.01	0.37	5	8	0.0	0	7.0	SW	40*	E	17	8	14	9	5.4	
SOUTH DAKOTA																																
HURON	1282		1010.8	70	49	59.6	1.6	86	4	33	1	0	0	53	83	7.69	5.33	2.07	17	16	0.0	0	14.3	SE	65	NW	23	2	7	22	7.8	45
RAPID CITY	3165		1010.7	69	48	58.3	2.6	86	9	37	1	0	0	43	66	6.90	4.24	2.19	14	9	0.0	0	13.4	NNW	42	NW	29				7.6	40
SIOUX FALLS	1420	960.0	1010.8	74	52	63.0	4.7	88	13+	36	1	0	0	52	72	6.07	2.69	2.24	16	16	0.0	0	11.8	E	35*	E	21+	4	4	23	8.0	
TENNESSEE																																
BRISTOL	1507	964.1	1018.5	85	58	71.2	6.0	92	18	41	3	6	0	58	68	1.69	-1.76	0.43	13	16	0.0	0	4.3	WSW	40*	NW	27	8	13	10	5.5	
CHATTANOOGA	670	991.0	1018.3	90	61	75.2	6.6	97	20	43	3	21	0	60	64	1.68	-1.84	1.62	5	7	0.0	0	5.8	S	27	W	1	14	8	9	4.8	82
KNOXVILLE	950	983.3	1018.5	87	61	74.0	5.8	94	18	44	3	13	0	57	60	1.88	-1.62	1.03	8	12	0.0	0	7.4	SW	36	W	26	9	13	9	5.5	69
MEMPHIS	263	1002.4	1016.9	88	66	76.8	6.0	95	28+	49	2	19	0	62	62	0.84	-3.39	0.62	4	4	0.0	0	8.5	S	25	S	30	12	15	4	4.5	85
MEMPHIS U	271			87	70	78.3	7.3	96	17	56	2	14	0			1.58	-2.45	1.40	3		0.0	0										
NASHVILLE	577	997.4	1017.1	88	62	75.2	6.6	95	19+	46	3	16	0	62	66	1.87	-1.85	1.71	3	6	0.0	0	6.3	S	33	W	1	13	10	8	4.8	79
OAK RIDGE	905	986.1		86	59	72.5	5.5	93	19+	40	3	13	0			2.64	-1.09	1.33	7	13	0.0	0	3.5		40Y		26	18	7	6	3.8	
TEXAS																																
ABILENE	1759	950.9	1011.1	90	65	77.3	5.6	98	30	44	2	20	0	56	51	1.55	-2.78	1.07	2	4	0.0	0	15.0	SSE	42	SE	31	10	10	11	5.5	70
AMARILLO	3607	885.2	1008.1	87	56	71.7	6.7	99	12+	34	1	15	0	41	41	1.76	-1.61	0.90	7	7	0.0	0	15.6	SSW	50	S	19	17	8	6	3.8	87
AUSTIN	597	993.0	1013.4	87	66	76.6	1.5	92	24+	54	2	7	0	62	66	1.06	-2.65	1.06	1	2	0.0	0	11.2	SSE	45	NW	29	9	11	11	5.5	63
BROWNSVILLE	16	1011.9	1014.5	85	71	78.2	-0.8	91	30	62	5	1	0	69	77	3.20	0.84	2.96	4	2	0.0	0	15.4	SE	39	E	1	9	15	7	5.2	69

See footnotes at end of table

CLIMATOLOGICAL DATA
ENGLISH UNITS

State and Station	Elevation (ground)	Pressure: Station Ø	Pressure: Sea level	Temperature: Average maximum	Temperature: Average minimum	Temperature: Average	Temperature: Departure from normal	Temperature: Highest	Temperature: Date	Temperature: Lowest	Temperature: Date	Temperature: No. of days: Max. 90 F. or above	Temperature: No. of days: Min. 32 F. or below	Average dew point	Average relative humidity	Precipitation: Total	Precipitation: Departure from normal	Precipitation: Greatest in 24 hours	Precipitation: No. of days: .01 inch or more	Precipitation: No. of days: With thunderstorms	Snow, Sleet: Total	Snow, Sleet: Maximum depth on ground	Wind: Average speed	Wind: Prevailing direction	Wind: Fastest mile: Speed	Wind: Fastest mile: Direction	Wind: Fastest mile: Date	No. of days (sunrise to sunset): Clear, 0-3	No. of days (sunrise to sunset): Partly cloudy, 4-7	No. of days (sunrise to sunset): Cloudy, 8-10	Sky cover, tenths (sunrise to sunset)	Possible sunshine
	Ft.	Mb.	Mb.	F.	F.	F.	F.	F.		F.				F.	%	In.	In.	In.			In.	In.	M.p.h.		M.p.h.							%
TEXAS																																
CORPUS CHRISTI	43	1013.9	1015.1	87	69	77.8	0.3	94	30	56	5	2	0	68	73	0.24	-2.75	0.20	3	0	0.0	0	16.4	SSE	36	SE	28	6	21	4	5.5	75
DALLAS	481	996.0	1014.3	88	66	77.3	4.4	95	24+	49	2	12	0	61	59	2.00	-2.83	1.90	3	3	0.0	0	16.4	S	42	SW	28	13	13	5	4.7	67
DEL RIO U	957			91	68	79.8	2.3	98	25+	55	2	24	0			0.48	-2.25	0.48	1	3	0.0	0						0	0			
EL PASO	3918	883.6	1008.4	89	59	74.1	2.2	98	11	47	1	17	0	22	15	0.00	-0.40	0.00	0	0	0.0	0	9.6	WSW	42	W	17	23	6	2	1.8	95
FORT WORTH	544	993.5	1014.1	89	67	77.6	4.9	96	23	49	2	14	0	61	59	1.58	-3.01	1.30	3	3	0.0	0	17.6	S	48*	ESE	29	13	11	7	4.8	
GALVESTON U	7			80	74	76.5	0.7	84	29	65	2	0	0			0.62	-2.17	0.48			0.0	0	14.1		33	SE	29	0	0			87
GALVESTON	5	1014.8	1017.3	82	73	77.1	1.1	85	31+	65	5+	0	0	66	71	0.82	-2.19	0.45	3	2	0.0	0	13.3			SE		12	14	5	4.9	
HOUSTON U	41			87	72	79.3	3.1	90	30+	60	2	6	0			1.68	-2.75	0.68	4		0.0	0						0	0			
HOUSTON	50	1013.1	1016.4	86	65	75.7	-1.3	91	26	55	5+	5	0	68	80	1.15	-3.17	0.85	3	3	0.0	0	11.5	SSE				11	16	4	4.8	81
LAREDO	500	997.3	1012.6	94	71	82.5	1.7	104	28	60	2	27	0	62	56	0.47	-2.32	0.38	4	0	0.0	0	14.7	SE	30*	SE	25	13	13	5	4.3	
LUBBOCK	3243	900.5	1009.8	91	59	74.6	6.4	100	11	38	1	21	0	45	41	0.10	-3.08	0.02	4	8	0.0	0	18.1	SSE	58*	S	12	15	13	3	3.6	
MIDLAND	2854	912.1	1008.6	91	64	77.4	4.0	100	11	46	1	18	0	44	39	0.14	-1.94	0.12	2	1	0.0	0	14.5	SSE	35*	SSE	16	13	12	6	4.1	
PORT ARTHUR	16	1015.4	1016.9	87	66	76.1	1.4	92	20	54	5+	6	0	67	77	0.86	-4.08	0.56	3	2	0.0	0	10.9	S	42	W	1	12	14	5	4.7	80
SAN ANGELO	1903	944.8	1010.6	92	65	78.4	4.1	100	30+	42	2	22	0	55	48	0.26	-2.94	0.19	3	5	0.0	0	12.9	SSE	33*	WNW	28	11	12	8	4.9	
SAN ANTONIO	792	989.5	1014.1	89	67	77.9	2.6	94	24	52	2	15	0	63	65	1.31	-2.14	1.31	2	2	0.0	0	12.8	SSE	33	NW	29	8	11	12	5.5	62
VICTORIA	104	1011.1		86	67	76.7	0.5	91	30	55	2	4	0			1.28	-2.84	1.28	1	1	0.0	0	12.3		44Y	S	29	8	18	5	5.2	
WACO	500	993.5	1014.5	88	67	77.1	2.8	93	27+	49	2	9	0	62	63	2.19	-2.38	2.18	3	3	0.0	0	18.0	S	40*	SSE	28	10	13	8	5.1	
WICHITA FALLS	994	974.9	1011.1	90	64	76.9	5.7	100	23	48	3	17	0	58	54	1.21	-3.39	1.09	6	8	0.0	0	13.4	SSE	48*	WSW	8	14	6	11	4.3	
UTAH																																
MILFORD	5028	841.2		72	38	54.7	-1.8	86	5	24	1	0	8			0.98	0.29	0.51	6	6	2.1	1						6	8	17	6.7	
SALT LAKE CITY	4220	864.2	1011.0	71	46	58.7	0.3	87	8	36	15+	0	0	40	56	2.12	0.72	0.50	12	6	0.0	0	10.5	S	39	S	23	1	14	16	7.5	65
WENDOVER	4237	866.9		69	49	59.0	-2.4	88	8	36	20	0	0			0.76	0.10	0.42	7	4	T	T						4	11	16	6.9	
VERMONT																																
BURLINGTON	331	1001.8	1016.5	68	44	55.7	-0.1	89	19+	25	8	0	4	42	62	2.24	-0.75	0.61	9	5	0.0	0	8.9	SSW	32	SW	14	8	10	13	6.2	61
VIRGINIA																																
LYNCHBURG	947	993.2		80	58	68.7	3.4	93	19	44	3	3	0			1.64	-1.57	0.58	12	12	0.0	0	7.1		30	NW	25	3	14	14	6.6	50
NORFOLK	26	1016.7	1018.2	77	59	68.0	0.5	92	24	43	10	3	0	58	73	3.68	0.32	1.08	10	7	0.0	0	9.4	ENE				8	11	12	5.7	
RICHMOND	162	1011.8	1018.2	83	58	70.6	4.1	97	19+	41	10	11	0	59	73	4.08	0.36	1.45	10	7	0.0	0	7.4	SW	45	N	8	7	9	15	6.4	63
ROANOKE	1174	977.6	1018.6	82	58	69.9	4.2	96	19	47	4	4	0	56	69	2.70	-1.09	0.47	16	12	0.0	0	8.1	WSW	46*	N	15	5	13	13	6.4	
WASHINGTON																																
OLYMPIA	190	1011.2	1018.4	60	40	49.6	-5.5	68	16	29	4	0	4	42	76	1.81	-0.20	0.36	13	0	0.0	0	7.1	SW	25*	WNW	3	0	3	28	8.8	
SEATTLE TACOMA	400	1003.7	1018.0	58	44	50.6	-4.4	67	16	33	7+	0	0	43	78	1.82	0.09	0.70	15	0	0.0	0	8.8	SW	26*	SW	3	0	9	22	8.5	
SEATTLE	14		1017.9											43	71								7.5	SE								
SEATTLE U	14			60	48	54.2	-3.2	69	16	40	4	0	0			1.50	-0.09	0.61	13		0.0	0			35	SW	3					40
SPOKANE	2357	945.1	1014.1	61	41	50.9	-4.8	72	27	30	4	0	1	39	68	1.65	0.44	0.31	13	3	0.0	0	8.0	SW	29	SW	2	2	5	24	8.1	53
STAMPEDE PASS R	3958	879.1		43	33	37.8	-6.1	56	27	24	4	0	15			3.90	-0.35	0.81	22	0	5.9	82						0	2	29	9.4	
TATOOSH ISLAND	101	1015.2	1018.5	53	45	49.3	-1.8	57	15	41	5+	0	0	44	83	2.12	-0.88	0.71	14	0	0.0	0	11.7	SW	45	SW	1	1	9	21	8.2	33
WALLA WALLA U	949	978.7		64	47	55.7	-5.3	75	27	37	4	0	0			3.78	2.29	1.03	12	2	0.0	0	5.7	WS	34	W	8	3	7	21	7.6	41
YAKIMA	1061	976.0	1014.8	67	41	53.7	-4.8	79	27	28	4	0	3	36	53	1.09	0.55	0.48	10	0	0.0	0	8.0	NW	26*	WNW	3	4	15	12	6.8	
WEST INDIES																																
SAN JUAN P.R. U	15	1012.3	1015.1	85	72	78.5	-0.2	91	9+	66	5	3	0	70	78	7.53	0.41	1.12	20	6	0.0	0	6.7	ENE	25	E	25+	0	18	13	7.1	48
SWAN ISLAND	28	1012.2		86	77	81.2	-1.3	87	31+	72	11	0	0			4.95	1.65	4.50	5	2	0.0	0						2	21	8	6.5	
WEST VIRGINIA																																
CHARLESTON	939	982.4	1017.5	83	56	69.8	5.5	92	18+	41	3	6	0	57	68	2.22	-1.49	1.23	10	8	0.0	0	5.0	SW	27*	NNW	26	8	10	13	6.3	
ELKINS	1970	949.9	1018.7	78	49	63.3		87	18	35	10	0	0	53	73	2.87		1.27	15	11	0.0	0	5.7	SSE	52*	WNW	26	2	14	15	7.0	
HUNTINGTON U	827	987.7	1017.7	81	57	69.0	3.2	92	18	43	3	5	0	57	70	2.58	-1.20	0.65	14	9	0.0	0	5.6	SSW	21*	WSW	1	7	12	12	6.1	
PARKERSBURG U	621			83	58	70.3	6.3	95	18+	46	10	7	0			2.88	-0.82	2.01	13	6	0.0	0	5.5		24	SW	2					59
WISCONSIN																																
GREEN BAY	682	992.2	1015.0	69	51	59.9	5.6	86	19+	36	7	0	0	50	71	2.86	-0.20	0.74	13	10	T	T	9.9	SW	43	SW	23	7	5	19	7.0	49
LA CROSSE	652	989.0		72	55	63.5	4.3	88	18+	40	9	0	0	51	67	3.78	0.02	1.03	12	10	0.0	0	12.8	S	54*	WSW	22	3	12	16	7.3	
MADISON	858	979.4	1014.6	72	51	61.4	5.3	87	18	36	9+	0	0	51	69	3.01	-0.33	1.22	12	11	0.0	0	10.9	S	33	SW	5	4	11	16	7.0	50
MILWAUKEE	672	991.4	1016.5	70	49	59.2	5.8	89	19	33	3	0	0	50	73	2.17	-0.99	0.71	10	9	0.0	0	11.9	SSW	32	SW	5	8	6	17	6.6	57

See footnotes at end of table

CLIMATOLOGICAL DATA

ENGLISH UNITS

State and Station	Elevation (ground)	Pressure: Station Ø	Pressure: Sea level	Temperature: Average maximum	Temperature: Average minimum	Temperature: Average	Temperature: Departure from normal	Temperature: Highest	Temperature: Date	Temperature: Lowest	Temperature: Date	Temperature: No. of days: Max. 90 F. or above	Temperature: No. of days: Min. 32 F. or below	Temperature: Average dew point	Average relative humidity	Precipitation: Total	Precipitation: Departure from normal	Precipitation: Greatest in 24 hours	Precipitation: No. of days: .01 inch or more	Precipitation: No. of days: With thunderstorms	Precipitation: Snow, Sleet: Total	Precipitation: Snow, Sleet: Maximum depth on ground	Wind: Average speed	Wind: Prevailing direction	Wind: Fastest mile: Speed	Wind: Fastest mile: Direction	Wind: Fastest mile: Date	No of days (sunrise to sunset): Clear, 0-3	No of days (sunrise to sunset): Partly cloudy, 4-7	No of days (sunrise to sunset): Cloudy, 8-10	Sky cover, tenths (sunrise to sunset)	Possible sunshine
	Ft.	Mb.	Mb.	F.	F.	F.	F.	F.		F.				F.	%	In.	In.	In.			In.	In.	M.p.h.		M.p.h.							%
WYOMING																																
CASPER	5319	833.7	1009.6	68	41	54.5	1.4	83	9	32	15+	0	2	35	56	3.80	1.77	1.06	11	8	0.0	0	12.3	WSW	40*	WSW	13	2	10	19	7.6	
CHEYENNE	6126	810.4	1009.4	69	42	55.1	3.7	84	9	30	1	0	1	33	52	2.72	0.20	0.96	13	11	T	T	13.5	WNW	46	NW	22	4	13	14	6.8	50
LANDER	5563	831.4	1009.2	67	41	54.0	1.1	82	10	31	1	0	2	34	52	3.54	0.89	1.06	10	5	0.0	0	8.8	WSW	45	SW	15	2	14	15	7.2	57
SHERIDAN	3942	881.1	1008.2	65	43	53.9	0.3	77	19	34	6+	0	0	41	65	2.28	-0.29	1.19	15	7	0.0	0	8.3	WNW	43	NW	21	3	7	21	7.9	50

Data from airport unless otherwise specified. U indicates Urban, R indicates Rural, sites.
* Value entered in column headed "Fastest Mile" is the highest observed wind speed. This station is not equipped with an automatic recording wind instrument.
Ø Station pressures apply to elevations shown in the "Elevations - Station Pressure" table of the annual issue of this publication.

A Maximum hourly average.
+ And also on an earlier date or dates.
B Number of days maximum 70°F. or above for Alaskan Stations.
$ Wind direction to 8 compass points only.
Y Peak Gust.

CLIMATOLOGICAL DATA

METRIC UNITS

MAY 1962

State and Station	Elevation (ground)	Pressure		Temperature											Average relative humidity	Precipitation							Wind					No. of days (sunrise to sunset)			Sky cover, tenths (sunrise to sunset)	Possible sunshine
												No. of days							No. of days		Snow, Sleet				Fastest mile (1.6 kilometers)							
		Station ○	Sea level	Average maximum	Average minimum	Average	Departure from normal	Highest	Date	Lowest	Date	Max 32.2 °C or above	Min. 0 C or lower	Average dew point		Total	Departure from normal	Greatest in 24 hours	.25 mm or more	With thunderstorms	Total	Maximum depth on ground	Average speed	Prevailing direction	Speed	Direction	Date	Clear, 0-3	Partly cloudy, 4-7	Cloudy, 8-10		
	M.	Mb.	Mb.	C.	C.	C.	C.	C.		C.				C.	%	Mm.	Mm.	Mm.			Mm.	Mm	M.p.s.		M.p.s.							%
ALABAMA																																
BIRMINGHAM	186	959.8	1018.8	33.3	18.3	25.9	4.6	37.2	28	8.3	3	23	0	15.0	55	32	- 55	27	4	3	0	0	3.2	ENE	14.8	W	30	16	9	6	4.0	86
HUNTSVILLE	184	995.2	1018.2	32.2	16.7	24.5	3.2	35.6	28+	6.7	3	22	0	15.0	59	39	- 47	30	5	5	0	0	2.3	SE	13.0*	SSE	29	16	8	7	4.2	
MOBILE	64	1016.1	1018.2	33.3	20.6	26.7	3.3	37.2	20	13.3	3	24	0	17.8	65	11	-113	3	5	5	0	0	3.5	SW	13.4*	ESE	16	17	10	4	3.6	
MONTGOMERY	59	1010.3	1018.5	32.8	17.8	25.1	2.7	36.1	21+	8.3	3	21	0	17.2	65	29	- 59	13	6	6	0	0	2.7	WSW	12.1	E	30	19	9	3	3.7	83
ALASKA												8																				
ANCHORAGE	27	1009.8	1014.7	11.1	2.8	7.1	-0.7	16.7	31	- 2.2	3	0	7	1.1	67	39	25	12	10	0	0	0	2.8	SE	8.9*	SE	23	5	6	20	7.6	43
ANNETTE	34	1013.5	1017.8	13.9	5.0	9.4	0.2	22.8	23	0.6	5	3	0	4.4	73	59	-120	13	15	0	T	0	3.3	NNW	8.0*	SSE	2+	8	6	17	6.7	
BARROW	7	1018.0	1018.6	- 5.6	-11.7	- 8.6	-1.0	3.3	21+	-22.8	1	0	31	-10.6	82	11	8	7	7	0	117	406	5.4	ENE	14.3*	ENE	15	2	5	24	8.4	
BARTER ISLAND	12	1016.9	1018.7	- 5.0	-11.1	- 8.1	-1.8	2.8	21+	-21.7	1	0	31	-10.6	81	4	- 2	3	5	0	58	203	5.8	E	13.9*	E	15	3	7	21	7.9	
BETHEL	38	1011.9	1013.2	6.1	- 1.1	2.3	-1.6	15.0	30	-12.2	1	0	23	0.0	85	42	18	11	16	0	142	T	5.8	SSW	16.5*	S	31	2	4	25	8.6	
COLD BAY	29	1011.2	1015.2	5.6	1.1	3.4	-0.7	9.4	7	- 3.9	2	0	12	1.1	85	60	2	36	14	0	3	T	8.0	SSE	20.6*	SE	17	0	3	28	9.2	
CORDOVA	12	1014.9	1016.7	10.0	1.7	5.6	-0.9	14.4	29	- 2.8	4+	0	14	2.8	81	131	3	34	15	0	T	T	2.8	ESE	8.0*	SE	26	3	8	20	8.0	
FAIRBANKS	133	996.3	1013.6	12.8	1.7	7.2	-1.2	21.1	26+	- 8.3	2	2	9	- 0.6	60	16	- 2	15	3	0	61	203	3.2	SW	10.3*	W	9	5	7	19	7.3	
JUNEAU	5	1015.9	1016.7	12.2	1.7	6.9	-0.6	18.9	23	- 2.8	4	0	9	1.7	73	72	- 10	25	13	0	T	0	2.6	ESE	10.3*	ESE	26+	9	4	18	6.9	53
KING SALMON	13	1011.5	1013.6	10.0	0.0	5.0	-1.3	18.3	30	- 6.7	3	0	10	0.6	77	43	19	16	15	0	5	T	5.1	SW	14.8*	SSE	18	5	4	22	7.6	
KOTZEBUE	3	1013.7	1014.3	2.2	- 3.9	- 1.0	-0.4	8.3	6	-18.9	1	0	26	- 2.8	87	19	11	12	9	0	163	559	4.1	ESE	10.7*	SE	7	3	6	22	8.1	
MC GRATH	102	1001.7	1014.6	10.0	0.0	5.1	-1.7	19.4	31+	-11.1	2	0	12	- 1.7	65	8	- 14	2	11	0	18	305	2.8	N	8.9*	SSW	7	5	6	20	7.5	
NOME	4	1012.7	1013.3	2.8	- 2.2	0.2	-1.5	7.8	26	-16.1	1	0	25	- 1.7	88	15	- 2	5	15	0	89	635	5.4	ENE	14.3*	WNW	15	2	1	28	9.0	16
ST. PAUL ISLAND	7	1011.5	1012.4	2.8	- 1.1	1.0	-0.6	7.8	30	- 3.9	22+	0	24	0.0	92	50	17	9	15	0	191	76	7.2	NW	19.7*	N	14	0	1	30	9.7	
SHEMYA	37	1008.8	1012.4	5.6	2.8	4.1	0.8	7.8	30+	0.6	11	0	0	2.8	91	25	- 36	11	11	0	T	0	7.6	SSW	19.2*	SSW	29	0	0	31	9.7	
YAKUTAT	9	1015.9	1017.0	10.0	1.7	5.8	-1.2	14.4	31	- 2.8	4+	0	9	2.8	81	132	- 71	44	14	0	0	0	3.1	NW	13.9*	SE	15	2	8	21	7.8	
ARIZONA																																
FLAGSTAFF	2131	789.0	1013.2	18.3	- 0.6	8.9	-1.6	23.9	10+	- 7.2	1	0	20	- 6.1	39	25	12	12	6	2	81	76	3.8	SSW	11.2*	S	25	18	9	4	3.5	
PHOENIX	338	971.9	1010.4	32.8	13.3	23.1	-1.9	38.3	9+	8.9	22+	18	0	- 1.7	20	T	- 3	T	0	0	0	0	2.3	W	9.8*	WNW	20	22	7	2	2.2	96
PRESCOTT	1528	845.9	1012.2	23.3	5.6	14.5	-1.8	29.4	9+	- 1.1	1	0	1	- 6.1	28	5	- 2	4	2	1	T	0	4.5	SSW	24.1	SW	20	19	9	3	2.9	89
TUCSON	788	923.5	1010.1	31.1	13.3	22.1	-0.7	36.1	11+	7.8	22	14	0	- 3.9	19	0	- 3	0	0	0	0	0	4.6	WSW	13.4	SW	27	23	5	3	2.1	98
WINSLOW	1487	850.0	1009.9	26.7	5.6	16.0	-2.5	33.3	10	- 3.9	1	4	2	- 6.1	25	2	- 6	1	3	0	T	0	5.6	SW	17.9*	SSW	12	21	7	3	2.9	
YUMA	61	1005.8	1010.8	33.3	15.6	24.6	-2.2	40.0	6	11.1	17+	19	0	0.0	24	T		T	0	0	0	0	3.6	WNW	10.3	W	12	26	5	0	1.5	97
ARKANSAS																																
FORT SMITH	137	996.3	1015.4	31.7	16.7	24.3	3.3	35.0	24	6.1	2	19	0	16.7	65	35	- 99	19	4	5	0	0	3.3	SW	20.1	W	26	11	15	5	4.7	77
LITTLE ROCK	78	1003.4	1016.4	31.7	16.7	24.1	2.7	35.6	28+	7.2	2	18	0	16.7	67	59	- 75	53	3	3	0	0	3.6	SW	14.8	N	17	10	14	7	4.8	81
TEXARKANA	110			30.0	18.3	24.2	2.2	32.8	27	9.4	2	6	0	17.8	72	58	- 66	30	2	2	0	0	4.3	SSW								
CALIFORNIA																																
BAKERSFIELD	151	997.6	1015.1	25.6	12.2	18.9	-2.4	33.3	7	7.8	20	3	0	5.0	43	2	- 4	2	2	0	0	0	3.8	NNW	10.3*	WNW	14+	19	6	6	3.3	
BISHOP	1252	870.6		23.9	5.6	14.7	-2.3	32.8	4	1.7	14+	1	0			33	28	13	6	0	0	0						13	11	7	4.7	
BLUE CANYON	1609	838.1		13.3	4.4	8.9	-2.0	20.6	7	0.0	20+	0	3			27	- 51	9	8	2	51	25	3.1	SSW	12.1	SSW	8	5	9	17	7.0	
BURBANK	213	989.2	1015.1	21.7	11.1	16.3	-1.7	30.6	2	7.2	17	0	0	8.3	65	10	5	9	2	1	0	0	3.5	S	9.4*	NW	14	11	9	11	5.0	
EUREKA U	13	1017.3		13.9	8.9	11.3	-0.4	20.0	7	5.6	13	0	0			15	- 40	6	8	0	0	0	3.7	N$	12.5	N	3	6	10	15	7.0	61
FRESNO	99	1002.4	1014.1	26.1	10.6	18.3	-1.4	33.3	7	6.7	20	3	0	5.0	46	5	- 3	3	3	1	0	0	3.7	WNW	11.6	NW	19+	17	8	6	3.5	86
LONG BEACH	10	1014.6	1015.9	21.7	11.7	16.7	-0.8	28.9	1	8.3	28+	0	0	10.0	68	3		3	1	0	0	0	3.4	W	9.4*	W	12	10	12	9	4.9	
LOS ANGELES	30	1012.5	1016.0	20.6	12.8	16.4	0.6	28.3	3	10.0	21+	0	0	10.6	72	2	- 2	2	1	0	0	0	3.9	WSW	10.3*	W	12+	9	18	4	4.5	
LOS ANGELES U	95			21.7	12.8	17.2	-1.1	31.1	3	9.4	17	0	0	9.4	67	1	- 4	1	1	0	0	0	2.8	W$	10.3	W	16	12	12	7	4.9	68
MT SHASTA R	1080	892.0		16.7	3.9	10.3	-1.8	23.9	7+	0.0	20	0	1			65	14	19	12	2	38	25						7	14	10	5.8	
OAKLAND	1	1016.6	1016.9	18.3	10.6	14.4	-1.0	25.6	7+	7.8	21+	0	0	7.2	65	T	- 17	T	0	0	0	0	5.1	WNW	14.8*	WNW	12	10	14	7	4.9	
POINT ARGUELLO	112	1003.1		16.1	8.9	12.3	-0.7	22.2	7	6.1	1	0	0			3	- 1	1	4	0	0	0	4.4		10.3*	NW	23+	11	13	7	5.2	
RED BLUFF	104	1001.4	1014.2	25.6	11.1	18.3	-1.8	32.8	7	7.2	20+	2	0	5.0	45	25	- 4	15	3	2	0	0	4.5	SSE	15.2	SE	8	12	14	5	4.7	85
SACRAMENTO	5	1014.2	1015.3	25.6	9.4	17.5	-1.4	32.8	7	6.7	11	1	0	7.8	62	1	- 14	1	1	0	0	0	4.0	SW	13.0	W	8	14	11	6	4.2	88
SACRAMENTO U	7			24.4	10.6	17.4	-1.3	32.2	7	7.8	24+	1	0			2	- 14	1	2		0	0										
SANDBERG R	1377	861.8		16.1	5.6	11.1	-2.6	24.4	6	- 0.6	14+	0	3			11	3	7	3	0	66	T	5.8	NNW	13.9*	N	1	20	6	5	2.8	
SAN DIEGO	4	1012.5	1015.8	20.6	13.9	17.0	-0.5	25.6	2	10.0	17	0	0	10.6	70	16	12	9	6	1	0	0	3.4	WNW	8.5	NW	1	8	15	8	5.4	57
SAN FRANCISCO	2	1016.9	1017.5	18.3	9.4	13.7	-0.9	26.1	7+	7.2	22+	0	0	7.8	72	T	- 12	T	0	0	0	0	6.2	WNW	19.7	WNW	19	10	14	7	5.0	
SAN FRANCISCO U	16			16.1	10.0	12.9	-1.2	25.0	6	8.3	20	0	0			T	- 16	T	0	0	0	0	5.1	W$	16.1	W	23					79
SANTA MARIA	73	1008.8	1017.2	17.8	7.2	12.3	-1.9	23.9	2	2.2	20	0	0	8.3	79	3	- 3	1	4	0	0	0	4.6	WNW	15.6*	WNW	23	16	11	4	4.0	
COLORADO																																
ALAMOSA	2297	770.1		20.6	- 0.6	10.1	-0.3	26.7	12	- 9.4	1	0	19			4	- 15	3	3	3	T	T						12	15	4	4.6	
COLORADO SPRINGS	1882	809.0	1010.4	23.3	6.1	14.8	2.3	30.0	12	- 5.0	1	0	2	- 2.8	36	16	- 38	6	8	8	0	0	4.8	N	15.6*	WSW	14	9	14	8	5.0	
DENVER	1610	834.4	1008.9	23.9	6.7	15.4	1.7	32.2	12	0.6	1	1	0	0.0	43	21	- 47	8	8	8	0	0	4.4	SSW	17.0	SW	12	3	17	11	6.1	71
GRAND JUNCTION	1478	856.1	1009.4	23.9	9.4	16.5	-0.3	30.6	10	1.1	1	0	0	- 5.0	28	4	- 11	4	2	2	0	0	3.7	ESE	20.6	SW	12	5	15	11	6.4	69

See footnotes at end of table

CLIMATOLOGICAL DATA

METRIC UNITS

State and Station	Elevation (ground)	Pressure		Temperature											Average relative humidity	Precipitation							Wind					No. of days (sunrise to sunset)			Sky cover, tenths (sunrise to sunset)	Possible sunshine
												No. of days							No of days		Snow, Sleet				Fastest mile (1.6 kilometers)							
		Station Ø	Sea level	Average maximum	Average minimum	Average	Departure from normal	Highest	Date	Lowest	Date	Max 32.2 °C or above	Min. 0 °C or lower	Average dew point		Total	Departure from normal	Greatest in 24 hours	25 mm. or more	With thunderstorms	Total	Maximum depth on ground	Average speed	Prevailing direction	Speed	Direction	Date	Clear, 0-3	Partly cloudy, 4-7	Cloudy, 8-10		
	M.	Mb.	Mb.	C.	C.	C.	C.	C.		C.				C.	%	Mm.	Mm.	Mm.			Mm.	Mm.	M.p.s.		M.p.s							%
COLORADO																																
PUEBLO	1414	852.4	1008.3	27.2	7.2	17.2	1.3	35.0	12	- 2.8	1	3	1	0.0	37	8	- 38	4	3	4	0	0	5.1	WSW	22.4	SE	17	15	10	6	4.4	80
CONNECTICUT																																
BRIDGEPORT	2	1018.3	1019.2	20.6	10.0	15.1	0.2	29.4	21+	3.9	13	0	0	7.8	67	24	- 71	8	7	2	0	0	5.4	NNW	12.5*	N	9	7	12	12	5.8	
HARTFORD	52	1011.8	1018.0	21.7	8.3	14.9	0.1	34.4	19	0.0	13	2	1	6.7	64	57	- 29	30	8	4	0	0	3.7	S	13.0	W	7	5	12	14	6.5	61
NEW HAVEN	2	1018.3		20.0	8.9	14.7	0.7	28.9	21+	3.3	13	0	0			20	- 75	8	7	3	0	0	3.3		11.2	NW	7	8	11	12	5.8	65
DELAWARE																																
WILMINGTON	24	1015.1	1018.4	23.9	11.7	17.9	0.8	35.0	19	2.8	12	3	0	10.0	65	41	- 49	31	8	3	0	0	3.8	ENE	9.4*	N	21+	6	13	12	6.3	
DIST.OF COLUMBIA																																
WASHINGTON U	22			25.6	15.0	20.2	1.8	35.6	15	6.1	10	4	0			76	- 23	29	11													
WASH NATL AP	4	1014.2	1018.6	25.6	15.0	20.4	1.6	35.0	19	6.7	10	5	0	12.2	64	88	- 17	32	10	6	0	0	3.4	S	17.4	W	24	9	13	9	5.8	61
FLORIDA																																
APALACHICOLA U	4	1016.1		29.4	21.1	25.2	1.4	32.8	22+	15.6	3	4	0			27	- 46	24	2	5	0	0	3.2		12.5	E	14	20	10	1	2.9	94
DAYTONA BEACH	9	1016.8	1018.7	31.1	18.9	24.8	1.4	36.1	22	13.3	7	11	0	17.8	69	4	- 68	3	2	11	0	0	4.2	E	10.3*	NNE	18	10	14	7	5.2	
FORT MYERS	4	1017.1		33.3	18.9	26.2	0.9	36.7	26	13.3	8	27	0			9	- 89	6	3	9	0	0	4.0		10.3*	SSE	31+	14	12	5	4.4	
JACKSONVILLE	7	1017.4	1018.8	32.2	18.9	25.7	1.4	37.2	20	12.2	7+	16	0	17.2	64	28	- 60	17	4	7	0	0	3.4	SW	15.2	NE	17	13	15	3	4.2	74
KEY WEST	2	1016.2	1017.4	28.9	23.3	26.3	0.2	31.7	27	19.4	5	0	0	19.4	69	36	- 34	35	4	4	0	0	4.5	ESE	10.7	SE	31	13	13	5	4.6	81
LAKELAND U	65			32.2	20.0	25.9	1.0	36.1	27	16.1	6	16	0			73	- 17	29	8	11	0	0	3.2					12	16	3	4.5	75
MIAMI BEACH	3			28.3	22.8	25.7	0.0	32.2	22+	17.2	6	2	0			62	- 53	36	7		0	0	3.5		12.5	NE	6	13	9	9	4.7	73
MIAMI	2	1016.4	1017.7	29.4	20.6	25.0	-0.3	33.3	22+	15.0	6	3	0	18.3	69	23	-140	11	4	5	0	0	4.2	ENE	12.1*	NE	6	10	14	7	4.9	
ORLANDO	32	1013.9	1018.4	33.3	20.0	26.6	2.1	37.8	27	16.1	8+	18	0	18.3	67	70	- 21	30	9	10	0	0	3.9	NE	15.6*	NNE	11	12	14	5	4.6	
PENSACOLA U	4			30.0	21.1	25.6	1.9	33.3	16	14.4	3	4	0			2	-110	2	1	2	0	0	4.2	N	8.0	SE	14+					87
TALLAHASSEE	18	1016.0	1018.7	33.3	17.8	25.6	1.8	36.7	28	11.7	6	21	0	16.7	63	25	- 79	12	6	8	0	0	3.9	E	10.3*	E	30	12	16	3	4.5	
TAMPA	6	1017.0	1018.5	31.7	19.4	25.5	0.6	35.0	27	15.0	6	14	0	18.3	70	70	- 2	21	5	9	0	0	4.7	NW	17.9*	NE	28	13	11	7	4.5	68
WEST PALM BEACH	5	1016.7	1017.8	30.6	20.0	25.2	-0.1	35.0	22	15.0	8	7	0	18.9	71	94	- 36	52	8	9	0	0	4.3	ENE	12.5*	NW	5	12	10	9	4.9	
GEORGIA																																
ATHENS	245	989.7	1018.5	31.7	16.7	24.1	2.9	36.1	19	7.8	3	15	0	15.6	63	40	- 52	24	6	8	0	0	3.0	WNW	10.3*	SSW	31	6	20	5	5.3	
ATLANTA	306	977.0	1018.0	30.0	16.7	23.4	2.5	33.9	19	8.9	3	10	0	16.1	65	10	- 71	5	4	4	0	0	2.9	WNW	13.0*	W	9	16	11	4	3.8	84
AUGUSTA	44	1010.9	1017.8	32.2	16.7	24.6	2.6	36.7	27	8.9	4	17	0	17.2	68	50	- 26	22	9	12	0	0	2.4	NW	13.0*	SE	15	12	14	5	4.9	
COLUMBUS	117	1004.6		32.8	17.2	24.8	2.5	36.1	28+	9.4	3	20	0			6	- 83	3	2	4	0	0	3.8		10.3*	NE	16	19	10	2	3.5	
MACON	109	1004.2	1017.8	33.3	17.8	25.7	2.4	36.7	28+	9.4	3	24	0	15.0	56	84	- 1	73	3	7	0	0	3.8	WNW	15.6	WNW	22	16	13	2	3.6	86
ROME	194	995.6		31.7	14.4	23.0	2.6	35.6	28+	4.4	3	18	0			45	- 52	27	4	5	0	0						15	12	4	4.0	
SAVANNAH	15	1016.1	1018.8	31.7	18.3	25.0	2.0	36.7	27+	11.7	6+	15	0	17.8	69	35	- 61	24	6	12	0	0	3.8	WNW	15.6	N	11	15	11	5	4.2	83
THOMASVILLE U	86			33.3	18.9	26.2	2.1	36.7	20	12.8	3	23	0			10	- 87	8	4	7	0	0						19	10	2	3.1	
HAWAII																																
HILO	9	1016.3	1018.0	26.7	18.9	22.8	0.0	29.4	8	17.2	8	0	0	18.9	82	345	108	58	29	1	0	0	3.4	WSW	9.4*	ESE	9	1	6	24	8.3	20
HONOLULU	2	1016.9	1017.3	28.9	21.7	25.1	0.7	30.0	31+	18.9	6	0	0	18.3	68	8	- 17	3	8	0	0	0	5.8	ENE	13.9	NE	24	4	11	16	7.1	80
LIHUE	35	1012.5	1018.1	28.3	21.1	24.7	1.1	30.6	31	17.2	5	0	0	18.9	77	91	25	42	20	1	0	0	5.6	NE	10.3	NE	25+	4	15	12	6.8	58
IDAHO																																
BOISE	865	916.4	1012.0	20.0	6.7	13.3	-0.9	26.1	8+	- 0.6	13	0	1	5.0	64	74	41	32	12	4	0	0	4.0	WNW	15.2	E	3	6	9	16	7.0	72
IDAHO FALLS 42NW R	1460			18.9	3.3	11.2	-0.3	25.0	8	- 0.6	15+	0	4			57	35	31	12				4.2	SSW	15.2A	SSW	6					
IDAHO FALLS 46W R	1504	844.9		17.8	3.9	10.6	-0.8	23.9	8	- 0.6	3+	0	3			46	18	17	13	3	0	0	4.3	SW	14.3A	WSW	4					
LEWISTON	431	962.8		18.3	7.2	12.6	-2.1	23.9	27	1.1	4	0	0			72	33	21	12	3	0	0						1	7	23	8.3	
POCATELLO	1355	860.1	1012.4	18.3	4.4	11.4	-1.4	26.1	8	- 1.7	12	0	1	2.8	59	29	1	8	12	5	0	0	4.7	WSW	14.8	SW	13	2	8	21	7.9	50
ILLINOIS																																
CAIRO U	96	1003.3		30.6	19.4	25.1	4.5	34.4	17	10.0	2	16	0			112		82	8	12	0	0	3.7	S$	18.8	SW	29	9	11	11	5.9	72
CHICAGO O HARE	201	990.6	1015.2	23.9	12.8	18.3		33.3	17+	3.9	8	4	0	11.7	67	86		23	10	9	0	0	5.6	SSW	23.2*		12	6	8	17	6.9	
CHICAGO MIDWAY	186	992.8	1015.5	25.0	13.9	19.5	3.9	34.4	17+	3.9	8	7	0	11.1	61	74	- 21	20	12	9	T	T	4.8	SW	17.0	S	7	6	8	17	6.6	81
MOLINE	177	991.6	1013.7	25.6	14.4	19.9	3.7	33.9	19	5.6	9+	3	0	13.3	68	155	58	44	13	12	0	0	4.9	SW	17.4	SW	8	8	10	13	6.2	59
PEORIA	199	993.1	1015.4	26.1	14.4	20.1	3.7	31.7	22	5.6	9	0	0	13.9	70	144	36	37	9	11	0	0	5.1	S	16.5	NE	10	8	10	13	6.1	61
ROCKFORD	222	987.8	1014.8	23.9	12.2	18.0	2.9	32.2	22+	3.9	9	4	0	11.1	67	107	10	24	11	11	0	0	5.7	SSW	15.6*	SSE	18+	8	9	14	6.2	
SPRINGFIELD	179	991.5	1014.5	28.9	16.1	22.4	5.2	35.0	18+	6.7	2	11	0	15.0	66	80	- 18	20	9	10	0	0	5.5	SSW	22.8	SW	26	9	11	11	5.8	72
INDIANA																																
EVANSVILLE	116	1000.7	1016.5	29.4	17.8	23.6	5.1	35.0	17	10.0	2	10	0	16.7	66	137	30	47	11	10	0	0	3.1	SW	15.2	NE	10	10	9	12	5.7	83
FORT WAYNE	241	985.7	1016.7	25.0	13.9	19.4	4.1	32.8	18+	5.0	10	3	0	12.2	66	129	34	36	12	7	T	T	5.0	WSW	17.9	W	24	5	12	14	6.3	66

See footnotes at end of table

CLIMATOLOGICAL DATA

METRIC UNITS

State and Station	Elevation (ground)	Pressure		Temperature												Precipitation							Wind					No. of days (sunrise to sunset)				
												No. of days							No. of days		Snow, Sleet				Fastest mile (1.6 kilometers)							
		Station Ø	Sea level	Average maximum	Average minimum	Average	Departure from normal	Highest	Date	Lowest	Date	Max. 32.2 °C or above	Min. 0 °C or lower	Average dew point	Average relative humidity	Total	Departure from normal	Greatest in 24 hours	.25 mm. or more	With thunderstorms	Total	Maximum depth on ground	Average speed	Prevailing direction	Speed	Direction	Date	Clear, 0-3	Partly cloudy, 4-7	Cloudy, 8-10	Sky cover, tenths (sunrise to sunset)	Possible sunshine
	M.	Mb.	Mb.	C.	C.	C.	°C.	°C.		°C.				°C.	%	Mm.	Mm.	Mm.			Mm.	Mm.	M.p.s.		M.p.s.							%
INDIANA																																
INDIANAPOLIS	242	987.0	1016.5	26.1	15.0	20.7	4.3	32.2	18+	7.8	10+	2	0	15.0	72	131	29	49	8	9	0	0	3.3	SSW	17.9*	NNW	26	7	11	13	6.1	71
SOUTH BEND	234	987.9	1015.8	24.4	12.2	18.3	3.4	33.3	17	4.4	10+	4	0	11.7	68	56	- 36	9	12	9	0	0	5.2	SSW	16.5*	WSW	24	4	10	17	6.8	
IOWA																																
BURLINGTON	212	989.0	1014.5	27.2	15.0	20.9	4.3	32.8	19+	6.1	9	5	0	13.3	66	118	16	38	12	11	0	0	5.5	SSW	15.2	W	22	8	10	13	6.2	69
DES MOINES	289	981.7	1012.8	26.1	15.0	20.7	4.1	32.2	13	6.1	2	1	0	13.3	66	153	50	51	10	10	0	0	4.4	SSW	25.0	SW	18	8	5	18	6.5	66
DUBUQUE	325	988.8		22.8	12.2	17.4	2.9	30.6	22+	4.4	9+	0	0			240	132	117	13	11	0	0			17.9	SW	22	9	7	15	6.0	
SIOUX CITY	334	970.0	1010.8	26.1	13.9	19.8	3.8	33.3	11+	2.8	2	3	0	12.2	68	143	61	39	15	17	0	0	5.7	SSE	31.3	SW	13	5	10	16	7.1	52
WATERLOO	265	981.6	1013.2	24.4	13.3	18.8	3.3	32.8	5	3.9	2	2	0	12.8	70	168	73	52	13	12	0	0	5.7	S	23.2*	S	22	7	8	16	6.5	
KANSAS																																
DODGE CITY	791	922.9	1009.0	29.4	13.9	21.7	4.1	36.1	12+	3.3	1	9	0	10.0	54	47	- 35	26	6	7	0	0	6.3	S	24.6	S	7	10	15	6	4.4	80
GOODLAND	1111	883.7	1008.7	27.2	8.9	18.1	3.4	37.2	12+	0.0	1	6	1	6.1	55	108	47	65	10	10	0	0	6.3	WSW	21.5*	NW	22	10	14	7	4.8	
TOPEKA	267	976.2	1011.3	29.4	15.6	22.6	4.6	33.9	19	3.9	2	4	0	14.4	62	107	- 4	72	8	10	0	0	7.2	S	26.4	SW	28	9	18	4	5.2	71
WICHITA	403	962.5	1010.2	30.6	17.2	24.1	5.2	37.8	25	6.1	1	13	0	13.9	57	25	- 76	23	2	9	0	0	7.2	S	25.9	S	20	10	12	9	5.1	72
KENTUCKY																																
COVINGTON	265	985.9	1017.4	27.2	13.3	20.2	2.7	33.9	18	6.1	10+	6	0	14.4	72	92	1	26	12	13	0	0	3.2	SW	14.3*	NW	26	9	9	13	6.4	
LEXINGTON	298	982.0	1017.6	28.3	16.1	22.0	3.9	33.3	18+	8.3	3	5	0	15.0	70	144	46	31	13	12	0	0	2.7	S	15.6*	WSW	1	11	9	11	5.5	
LOUISVILLE	144	997.7	1016.9	28.3	15.6	21.9	3.9	32.8	18+	6.7	3	4	0	16.7	74	85	- 14	23	12	12	0	0	3.1	SSE	15.6	S	29	11	9	11	5.5	63
LOUISIANA																																
ALEXANDRIA	28	1013.5	1018.1	30.6	15.6	22.8		34.4	28	8.3	3	8	0	17.2	74	83		46	5	5	0	0	2.5	S				14	12	5	4.0	
BATON ROUGE	20	1015.3	1018.3	31.7	17.8	24.7	1.2	35.0	28	11.7	3	17	0	17.8	70	42	- 80	28	4	4	0	0	3.5	S				15	10	6	3.9	
BURRWOOD R	2		1019.0	28.3	22.2	25.2	1.2	30.6	30+	16.7	3	0	0	20.6	77	T	-104	T	0	0	0	0	4.4	S								
LAKE CHARLES	4	1016.4	1017.7	29.4	18.3	24.0	0.1	32.8	20+	11.7	3	4	0	18.9	75	44	- 73	14	5	5	0	0	4.2	S	14.3*	SSE	1	12	13	6	4.6	
NEW ORLEANS	1	1016.3	1018.4	30.6	18.3	24.5	1.2	34.4	18	12.2	4	10	0	19.4	75	33	- 78	24	4	3	0	0	3.4	SSE	13.9*	SW	29	20	7	4	3.1	
NEW ORLEANS AUDUBON	3	1011.8		31.1	19.4	25.3		34.4	20	15.6	4+	11	0			21		18	3	2	0	0										
SHREVEPORT	77	1008.0	1017.2	30.6	17.8	24.1	1.3	33.3	27+	9.4	2	8	0	17.2	69	31	- 91	28	4	3	0	0	4.8	S				14	12	5	4.5	78
MAINE																																
CARIBOU	190	992.9	1016.5	15.0	4.4	9.5	-0.4	30.6	19	- 2.8	8	0	6	3.3	69	74	- 3	19	15	4	T	0	5.4	WNW	23.2*	WNW	9	4	3	24	7.9	
PORTLAND	19	1013.9	1018.0	16.7	4.4	10.6	-1.1	31.1	31	- 2.8	8	0	4	4.4	69	47	- 40	20	13	6	0	0	4.3	S	14.3	NW	9	8	11	12	6.1	61
MARYLAND																																
BALTIMORE	45	1013.5	1018.4	25.6	12.8	19.0	1.0	36.7	19	1.7	10	5	0	11.1	65	62	- 39	43	11	4	0	0	4.1	W	11.6	W	25*	6	15	10	6.1	59
BALTIMORE U	4			25.6	15.6	20.4	1.5	36.7	19	7.8	12	5	0			57	- 49	31	11													
FREDERICK	90			25.0	11.7	18.3	1.3	34.4	19+	0.6	10	4	0			74	- 25	28	8	0	0	0										
MASSACHUSETTS																																
BLUE HILL OBS R	192	993.7	1017.2	18.3	7.8	13.2	-0.5	32.8	19	2.8	2+	1	0		68	48	- 40	15	10		0	0	6.2	ENE	19.2	NW	9					59
BOSTON	5	1013.0	1017.8	18.9	9.4	14.0	-0.9	32.8	31	4.4	12	1	0	5.0	62	47	- 38	25	11	3	0	0	5.9	E	16.1	WNW	10	7	13	11	6.0	64
NANTUCKET	13	1017.6	1018.3	15.6	7.2	11.3	-0.1	22.8	21	2.2	13	0	0	6.7	77	15	- 58	5	9	2	0	0	5.3	SW	12.5	SW	10	7	12	12	6.2	64
PITTSFIELD	357			20.0	5.6	12.9	0.3	32.2	18	- 1.1	11	1	4			40	- 58	13	9		0	0										
WORCESTER	301	980.8	1017.7	18.3	7.2	12.8	-0.1	33.3	19	1.1	9+	1	0	4.4	63	101	5	36	12	6	T	0	3.8	SW	12.5*	NE	19	4	15	12	6.4	
MICHIGAN																																
ALPENA	210	990.7		20.6	6.1	13.2	2.0	34.4	16	- 5.6	10	4	7			89	15	33	12	8	T	T	3.4	SW$	11.2	N	6	5	12	14	6.8	69
DETROIT	189	990.4	1017.0	23.9	12.8	18.4	3.7	33.9	18+	3.9	9	6	0	10.0	60	32	- 58	15	10	4	0	0	4.4	SW	19.2	NW	31	8	8	15	6.6	59
DETROIT M WAYNE CO	193	992.7	1016.8	23.9	11.1	17.2	2.8	33.3	18+	2.2	7	4	0	9.4	63	41	- 49	20	8	7	0	0	4.1	WSW				4	13	14	6.7	
DETROIT WILLOW RUN	217	988.2	1016.5	25.0	11.1	18.2	3.1	35.6	18+	3.3	7	6	0	10.0	62	35	- 53	14	9	6	0	0	3.9	SW	15.6*	WSW	23	6	11	14	6.7	
ESCANABA U	181	992.8		16.1	7.8	11.8	1.7	23.3	18	0.0	9+	0	2	6.7	73	64	- 12	25	10	5	0	0	4.2		13.9	N	20+	5	8	18	6.9	50
FLINT	233	989.2	1017.0	22.8	10.0	16.4	2.7	32.2	16+	1.1	9	2	0	10.0	68	54	- 32	22	9	5	0	0	4.2	SW	13.4*	W	31	6	10	15	6.7	
GRAND RAPIDS	208	991.1	1016.3	23.3	11.1	17.2	3.3	33.3	29	2.2	9+	4	0	9.4	61	61	- 27	25	10	7	0	0	5.1	WSW	17.4	N	29	7	8	16	6.5	60
LANSING	260	984.4	1016.3	22.8	10.6	16.6	2.6	31.7	29+	1.1	9	0	0	10.0	66	49	- 46	31	9	6	0	0	5.8	S	20.1	W	24	7	9	15	6.6	72
MARQUETTE U	206	987.8		17.8	6.7	12.2	2.3	34.4	16	0.0	9+	3	3			55	- 20	11	12	7	28		3.4	SE$	13.9	SW	23	2	11	18	7.6	55
MUSKEGON	191	993.0	1016.0	22.2	10.6	16.2	3.6	33.9	29	2.2	9+	1	0	10.0	68	30	- 46	10	9	8	0	0	4.8	SSW	12.1*	S	29	7	9	15	6.4	
SAULT STE MARIE	220	993.4	1016.3	17.2	6.1	11.8	2.3	31.1	17	- 2.2	9	0	4	6.1	71	110	40	60	12	7	36	T	4.1	ESE	10.7*	NW	6	4	9	18	7.2	54
MINNESOTA																																
DULUTH	435	972.2	1014.1	16.1	4.4	10.0	0.2	28.9	17+	- 3.3	9	0	5	3.9	72	195	111	58	18	11	5	T	4.5	ESE	17.0	NE	22	2	7	22	8.5	35
INTERNATIONAL FALLS	359	972.2	1013.5	17.8	5.0	11.2	0.8	28.9	17	- 2.2	6	0	5	5.6	72	150	83	31	17	6	33	T	4.1	SE	13.0*	S	17	4	9	18	7.6	
MINNEAPOLIS	251	978.8	1012.8	21.1	11.1	15.9	1.7	30.0	18+	1.1	2	0	0	10.0	70	204	123	61	15	11	0	0	6.3	ESE	16.5*	SSW	22	2	9	20	7.9	39

See footnotes at end of table

CLIMATOLOGICAL DATA
METRIC UNITS

State and Station	Elevation (ground)	Pressure		Temperature											Average relative humidity	Precipitation							Wind					No. of days (sunrise to sunset)				
												No. of days							No of days		Snow, Sleet				Fastest mile (1.6 kilometers)							
		Station	Sea level	Average maximum	Average minimum	Average	Departure from normal	Highest	Date	Lowest	Date	Max 32.2 °C or above	Min. 0 C or lower	Average dew point		Total	Departure from normal	Greatest in 24 hours	25 mm. or more	With thunderstorms	Total	Maximum depth on ground	Average speed	Prevailing direction	Speed	Direction	Date	Clear 0-3	Partly cloudy, 4-7	Cloudy 8-10	Sky cover, tenths (sunrise to sunset)	Possible sunshine
	M.	Mb.	Mb.	C.	C.	C.	C.	C		C.				C.	%	Mm.	Mm.	Mm.			Mm.	Mm.	M.p.s.		M p.s							%
MINNESOTA																																
ROCHESTER	395	965.9	1013.4	21.1	11.1	16.3	2.6	30.0	18+	3.9	9+	0	0	10.6	73	98	5	29	14	10	0	0	7.0	S				4	11	16	7.3	
ST CLOUD	315	974.5	1012.6	20.6	9.4	14.9	1.8	29.4	17+	1.7	1	0	0		70	203	114	81	17	7	0	0						4	4	23	8.0	
MISSISSIPPI																																
JACKSON	93	1006.1		30.6	17.2	24.1	1.6	35.0	28	9.4	3	12	0			66	- 40	21	5	5	0	0	2.7	SSW	13.0	NE	30	18	8	5	3.5	83
MERIDIAN	89	1005.0	1018.9	32.2	15.6	24.1	1.6	36.1	20	7.2	3	19	0	16.7	71	19	- 80	17	2	3	0	0	2.3	S	10.3*	NW	1	18	8	5	3.5	
VICKSBURG U	71	1008.8		30.0	18.9	24.2	1.2	33.9	28	12.8	3	5	0			51	- 54	43	6	6	0	0	3.4		11.6	NE	17	18	9	4	3.9	84
MISSOURI																																
COLUMBIA	237	985.2	1013.3	28.9	16.1	22.7	4.7	32.8	22+	7.2	2	4	0	14.4	64	66	- 54	23	7	12	0	0	4.7	SSE	16.1	SW	27	7	17	7	5.5	73
KANSAS CITY	226	977.5	1011.8	29.4	17.8	23.7	5.3	34.4	19	8.9	2	9	0	14.4	59	134	23	72	9	10	0	0	4.9	S	21.5	SW	28	7	15	9	5.8	72
ST JOSEPH	247	977.5		28.9	16.1	22.6	4.8	33.9	12	5.6	2	8	0			293	181	181	8	9	0	0	6.5	S	20.6*	SW	28	8	16	7	5.3	
ST LOUIS	163		1015.2	28.3	16.1	22.3	3.6	32.2	28	6.7	2	1	0	15.0	65	62	- 33	22	10	8	0	0	4.3	S	15.6	SE	22	6	14	11	5.8	67
ST LOUIS RFC	142			29.4	18.3	23.8	4.6	33.3	17	10.0	2	7	0			48	- 50	24	7		0	0						0	0	0		
SPRINGFIELD	386	967.7	1014.5	28.9	15.6	22.4	4.3	32.2	25	5.0	2	1	0	15.0	66	71	- 63	30	6	12	0	0	5.1	SSE	17.4	NW	31	8	16	7	5.4	78
MONTANA																																
BILLINGS	1087	894.0	1011.0	18.3	7.2	12.8	-0.4	25.0	19+	3.3	14	0	0	3.9	61	93	45	33	16	7	0	0	5.0	NE	15.2	NW	20+	2	9	20	7.5	59
GLASGOW	694	938.4		17.2	6.7	12.0	-0.8	23.9	18	- 0.6	8	0	1	3.3	63	64	26	28	11	3	0	0						1	6	24	8.4	
GREAT FALLS	1116	885.9	1013.3	16.1	5.0	10.4	-1.8	22.2	31+	0.6	5	0	0	2.8	65	132	78	46	16	5	T	0	4.5	SW	17.0	SW	19	0	10	21	8.2	42
HAVRE	787	923.8		18.3	5.0	11.8	-0.6	25.0	19	- 1.7	5	0	2			55	16	26	15	2	0	0	4.3	E$	18.8	W	4	1	11	19	7.5	51
HELENA	1187	870.6	1012.6	17.2	5.0	10.9	-0.7	22.8	31	1.1	12+	0	0	2.8	61	96	56	35	13	3	0	0	3.9	WNW	17.0	S	19	3	4	24	8.2	52
KALISPELL	904	909.2		17.2	3.9	10.4	-0.8	23.9	23	- 2.8	5	0	5			52	9	8	13	3	0	0	2.9					1	9	21	7.9	
MILES CITY	801			19.4	7.8	13.6	-0.6	26.1	9	2.2	1	0	0	5.6	66	126	82	29	16	8	0	0	5.1	NE	15.6*	NNW	29+	2	12	17	7.7	
MISSOULA	972	899.8	1014.1	16.7	3.9	10.1	-1.4	22.2	23	- 2.2	3	0	5	3.9	72	48		15	22	8	0	0	3.3	NW	13.9	SW	3	0	8	23	8.6	51
NEBRASKA																																
GRAND ISLAND	561	944.2		27.2	11.7	19.4	2.7	35.6	7	1.1	2+	7	0	10.0	61	87	- 11	24	10	11	0	0	6.1	S				6	10	15	6.5	
LINCOLN U	351			27.8	15.0	21.3	4.3	33.9	12+	3.9	2	4	0			74	- 14	56	9	12	0	0	6.3	S$	19.7	SW	18	8	8	15	6.3	72
NORFOLK	471	954.7		25.6	12.8	19.1	3.4	33.9	7	2.2	2	4	0			96	3	32	15	16	0	0						5	10	16	6.8	
NORTH PLATTE	847	910.8	1008.3	26.1	9.4	17.7	3.0	35.6	11	- 1.7	1	5	2	7.8	57	203	129	75	10	13	0	0	5.8	SE	25.5	SE	15	7	8	16	6.5	62
OMAHA	298	971.5	1010.8	27.2	15.0	21.2	3.9	33.9	10	5.6	2	3	0	12.2	60	134	45	63	13	12	0	0	6.2	SSE	25.0	NW	7	6	12	13	6.3	68
OMAHA N OMAHA AP	403	963.3		26.7	14.4	20.3	4.3	33.3	7	7.2	1	2	0			101	15	71	10	11	0	0						7	8	16	6.5	
SCOTTSBLUFF	1204	875.0	1009.2	23.3	8.3	15.6	1.8	33.3	11	- 1.7	1	3	1	4.4	57	160	91	29	13	12	0	0	6.1	NW	20.6*	NW	22	3	12	16	7.0	
VALENTINE	789	919.4		23.3	8.3	15.7	1.8	36.7	11	- 3.3	1	3	2	7.8	68	228	160	72	15	12	0	0	5.3	NE$	19.7	NW	21	4	11	16	7.2	55
NEVADA																																
ELKO	1547	842.2	1012.2	17.2	2.8	10.1	-1.0	26.7	8	- 2.2	1	0	4	0.6	57	59	35	31	14	5	61	25	3.4	SW	13.0*	WNW	23	2	10	19	7.6	
ELY	1907	806.3	1010.9	17.2	1.7	9.4	-0.7	26.1	8+	- 3.3	17	0	14	- 2.8	52	32	10	12	13	4	T	T	4.2	S	21.0	S	19	1	11	19	7.8	64
LAS VEGAS	659	944.1	1008.9	28.9	13.9	21.4	-1.8	36.1	6+	6.1	17	11	0	- 4.4	21	2	- 1	2	1	1	0	0	5.6	SSW	17.0*	W	20	16	12	3	3.5	85
RENO	1342	860.8	1013.9	20.0	1.7	10.8	-1.1	27.2	4	- 3.9	13	0	8	0.6	51	36	22	23	4	4	229	76	3.5	WNW	16.1	SE	8	6	13	12	6.0	69
WINNEMUCCA	1310	864.9		18.9	3.9	11.5	-0.6	27.2	8	- 1.1	26	0	4	0.6	53	12	- 12	4	10	2	3	T	3.8	W	16.1	W	8	4	9	18	7.5	74
NEW HAMPSHIRE																																
CONCORD	103	1007.2	1018.1	20.0	5.6	12.6	-0.5	36.1	19	- 2.8	11	1	4	3.9	62	66	- 15	21	10	6	0	0	2.8	NW	12.5	W	10+	10	10	11	5.8	59
MT WASHINGTON OBS	1909	826.8		6.7	- 0.6	3.1	1.4	17.8	19	-13.9	9	0	19		79	101	- 47	24	13	5	28	25	12.3	NW	41.1Y	NW	9	8	9	14	6.4	53
NEW JERSEY																																
ATLANTIC CITY	18	1016.3	1018.8	23.3	11.7	17.3	1.1	35.6	19	3.3	12	1	0	8.9	64	45	- 44	23	8	5	0	0	4.4	S	11.2*	NW	4	5	16	10	6.0	49
ATLANTIC CITY U	3			17.8	12.2	14.9	-0.4	26.1	19	6.7	12+	0	0			38	- 42	19	6				5.8		13.0*	WNW	4					
NEWARK	3	1017.2	1018.5	23.3	12.2	17.9	1.3	36.7	19	6.7	9+	2	0	8.3	60	37	- 56	20	5	5	0	0	4.0	SW	14.3*	WNW	24	8	16	7	5.5	
TRENTON U	17	1014.0		23.3	12.2	17.7	0.8	35.6	19	6.1	12+	3	0			42	- 50	19	7	3	0	0	3.7	S	13.0	NW	6	7	15	9	5.7	65
NEW MEXICO																																
ALBUQUERQUE	1618	846.3	1009.6	27.2	8.3	17.8	-0.6	32.8	12	1.1	1	2	0	- 6.1	21	T	- 19	T	1	0	0	0	3.8	S	21.0	S	12	24	4	3	2.5	92
CLAYTON	1515	842.5		27.8	8.9	18.3	2.8	34.4	12+	0.6	1	4	0			34	- 36	10	4	6	0	0						17	10	4	3.5	
RATON	1944	803.3		25.6	3.9	14.7	1.7	32.2	12	- 6.7	1	1	2			10	- 49	8	4	4	0	0						15	11	5	4.1	
ROSWELL	1101	889.3		33.3	9.4	21.4	2.2	37.8	12	0.0	1	23	1	- 2.2	25	5	- 27	5	1	4	0	0	5.5		22.4	SW	19	25	5	1	2.3	93
SILVER CITY	1638	834.7		27.2	7.8	17.4		32.2	11	1.1	18	1	0			0		0	0	0	0	0						25	5	1	1.8	
NEW YORK																																
ALBANY	84	1013.5	1017.5	22.2	8.9	15.4	1.1	34.4	18	- 0.6	12	3	1	6.7	61	36	- 53	9	12	5	0	0	4.0	S	15.6	NW	31	5	15	11	6.4	65
BINGHAMTON	485	958.4	1017.3	21.1	9.4	15.1	2.2	30.6	20+	- 0.6	9	0	1	7.8	65	20	- 69	9	9	3	10	T	4.6	NNW	12.1	SW	24	4	16	11	6.4	72

See footnotes at end of table

CLIMATOLOGICAL DATA

METRIC UNITS

State and Station	Elevation (ground)	Pressure		Temperature											Average relative humidity	Precipitation							Wind					No. of days (sunrise to sunset)			Sky cover, tenths (sunrise to sunset)	Possible sunshine
												No. of days							No. of days		Snow, Sleet				Fastest mile (1.6 kilometers)							
		Station Ø	Sea level	Average maximum	Average minimum	Average	Departure from normal	Highest	Date	Lowest	Date	Max. 32.2 °C or above	Min. 0 C or lower	Average dew point		Total	Departure from normal	Greatest in 24 hours	.25 mm. or more	With thunderstorms	Total	Maximum depth on ground	Average speed	Prevailing direction	Speed	Direction	Date	Clear, 0-3	Partly cloudy, 4-7	Cloudy, 8-10		
	M.	Mb.	Mb.	C.	C.	C.	C.	C.		C.				C.	%	Mm.	Mm.	Mm.			Mm.	Mm.	M.p.s.		M.p.s.							%
NEW YORK																																
BUFFALO	215	989.5	1017.5	22.2	10.0	16.1	3.7	31.1	23	-1.7	10	0	2	8.9	65	60	-15	37	9	4	0	0	4.8	SW	19.2	NW	23	7	13	11	6.1	70
NEW YORK U	40	1014.6		23.9	12.2	18.1	1.2	37.2	19	5.6	9+	3	0	7.2	55	32	-61	13	8	3	0	0	3.6	S$	14.8	S	24	16	9	6	4.4	66
NEW YORK	6	1016.4	1018.3	22.8	12.8	17.6	0.8	35.0	19	6.7	9+	2	0	8.3	61	26	-65	13	9	5	0	0	4.8	NE	11.2	S	23	6	16	9	5.7	
ROCHESTER	166	998.2	1017.4	23.3	10.6	16.9	3.2	32.8	18	-0.6	9	4	2	9.4	64	69	-2	45	7	4	T	0	5.1	WSW	24.1	SW	24	8	14	9	5.3	74
SCHENECTADY	66			22.2	9.4	15.8	0.7	33.3	18	1.7	12	2	0			46	-37	17	11		0	0						18	10	3	3.4	
SYRACUSE	129	995.4	1017.2	23.3	10.6	16.8	2.6	32.2	20+	1.1	9	4	0	7.8	59	27	-56	8	9	4	0	0	4.6	WNW	16.1	W	24	6	15	10	5.7	66
NORTH CAROLINA																																
ASHEVILLE U	671	940.4		27.8	13.9	20.8	2.8	31.7	22	6.7	4	0	0			72	-1	17	11	14	0	0	2.9	N$	12.1	N	24+	8	20	3	5.1	62
CAPE HATTERAS R	2	1016.9	1017.7	25.0	15.6	20.2	0.2	31.1	26	7.8	4	0	0	15.6	77	15	-86	9	6	4	0	0	5.1	N	12.5	NW	27	9	15	7	5.1	72
CHARLOTTE	224	956.2	1017.9	30.6	16.7	23.6	3.1	35.0	19	10.0	6+	13	0	15.0	63	47	-32	11	10	10	0	0	2.9	SW	16.1	NE	15	10	10	11	5.2	70
GREENSBORO	272	986.7	1018.3	29.4	15.0	22.0	2.6	34.4	19	5.6	3	10	0	13.9	66	55	-28	29	10	12	0	0	3.2	SW	16.1	NW	25	9	10	12	6.1	65
RALEIGH	132	1003.9	1017.7	29.4	15.6	22.2	2.4	35.0	19	8.3	4	8	0	13.9	65	35	-55	20	7	7	0	0	3.1	ENE	15.6*	NW	8	8	16	7	5.3	59
WILMINGTON	9	1015.8	1018.7	29.4	16.7	23.1	1.7	35.6	19+	9.4	6	6	0	16.7	75	60	-30	19	10	9	0	0	3.8	SSW	13.9	SW	8	8	16	7	5.2	66
WINSTON SALEM	295	983.4	1018.4	28.9	15.6	22.2	2.3	34.4	19	7.8	3	9	0	13.3	63	84	-18	52	13	13	0	0	3.5	ENE	17.9*	W	25	11	10	10	5.5	
NORTH DAKOTA																																
BISMARCK	502	951.9	1012.2	18.9	6.7	12.8	-0.2	26.1	3	-3.9	1	0	1	6.7	71	122	72	40	13	6	0	0	5.1	ESE	16.1	E	13	1	7	23	8.6	35
DEVILS LAKE U	448	959.5		15.0	6.1	10.6	-1.3	24.4	2	-4.4	6	0	2			148	94	35	17	3	T	T	4.5	NW$	18.8	NE	13	2	6	23	8.4	31
FARGO	274	977.5	1011.9	18.9	8.3	13.7	0.7	30.6	4	0.0	6	0	1	8.9	76	151	100	43	16	9	0	0	4.4	ESE	19.2	NE	22	1	4	26	9.1	26
WILLISTON U	579	945.3		16.7	5.0	11.0	-1.9	24.4	19	-2.2	1	0	3			89	53	31	12	1	0	0	5.2	N$	17.4	NW	5	1	7	23	8.3	37
OHIO																																
AKRON	369	980.1	1018.1	25.0	12.2	18.7	4.2	33.3	18	3.3	9+	5	0	10.6	63	47	-51	13	12	4	0	0	3.6	SW	13.0	W	20	7	12	12	6.5	
CINCINNATI OBS	232			27.8	15.6	21.6	3.7	34.4	18+	7.2	10	8	0			128	31	38	16	14	0	0	2.3	SW	11.6	W	27+					64
CINCINNATI U	169	994.6		28.3	16.7	22.4	4.1	35.6	19	9.4	10	8	0			133	43	30	14	14	0	0										
CLEVELAND	237	989.2	1017.0	24.4	12.2	18.3	4.2	32.8	20+	3.3	7	4	0	11.1	62	49	-41	19	8	5	0	0	4.8	S	13.9	SW	2	7	11	13	6.5	73
COLUMBUS	247	987.7	1017.5	26.1	13.3	19.6	2.9	33.9	18	5.6	9+	6	0	12.2	65	59	-43	15	14	6	0	0	3.4	S	16.1	W	24	5	12	14	6.6	68
COLUMBUS U	221			26.1	15.6	20.9	3.7	35.0	18	6.1	9	6	0			61	-27	22	10	9	0	0										
DAYTON	304	980.9	1017.0	26.1	14.4	20.1	3.6	33.9	18	5.6	10	5	0	12.8	66	100	5	31	13	9	0	0	4.2	SSW	14.3	W	24	8	7	16	6.1	47
MANSFIELD	395			24.4	12.2	18.4	3.9	33.3	18	2.2	7	2	0			47	-47	16	12	8	T	0						6	9	16	6.8	
SANDUSKY U	185	995.5		24.4	14.4	19.2	3.6	33.9	20	6.1	9	5	0			59	-30	17	9	5	0	0	4.0		29.5	W	23	13	10	8	4.5	74
TOLEDO	206	991.8	1016.9	25.0	12.2	18.7	4.1	35.0	18	2.8	3	7	0	11.7	66	72	-5	15	14	7	0	0	4.1	WSW	14.3	SW	24	6	9	16	6.8	67
YOUNGSTOWN	359	975.3	1017.8	24.4	11.1	17.6	2.9	33.3	18	1.1	9	3	0	10.0	65	54	-49	30	12	3	0	0	4.2	SW	13.0*	W	23+	6	12	13	6.3	
OKLAHOMA																																
OKLAHOMA CITY	390	969.7	1012.4	30.0	17.2	23.5	3.8	33.9	25	8.9	1	7	0	15.0	60	67	-65	39	4	7	0	0	7.3	SSE	29.5	SW	25	10	14	7	5.0	80
TULSA	206	988.8	1013.0	30.6	17.8	24.1	4.2	33.3	21+	7.8	2	7	0	16.7	66	43	-91	25	6	7	0	0	6.7	SSE	13.9	SE	22	9	16	6	4.9	79
OREGON																																
ASTORIA	2	1018.6	1019.2	13.9	6.7	10.2	-1.4	16.1	31+	1.7	7	0	0	6.7	80	73	-8	12	21	0	0	0	4.0	WNW	12.5*	SW	8	0	2	29	9.2	
BURNS U	1265	870.6		16.7	2.2	9.4	-2.5	21.7	31	-2.8	13+	0	5	1.1	60	34	11	9	14	1	T	T						6	11	14	6.8	
EUGENE	110	1005.4		16.1	6.1	11.1	-2.3	20.6	27+	0.6	4	0	0			49	-6	18	14	0	0	0	3.2		10.7*	W	28	1	8	22	8.3	
MEACHAM	1234			10.6	1.1	5.9	-3.0	15.6	27	-2.8	14+	0	10			70	7	15	15	2	61	25						1	6	24	8.7	
MEDFORD	396	970.2	1017.9	19.4	5.6	12.4	-2.1	25.6	7	0.0	16	0	1	5.0	66	20	-17	10	12	2	T	T	2.7	WNW	8.9*	NNW	17+	2	8	21	7.6	
PENDLETON	452	961.7	1015.7	17.2	7.2	12.2	-2.8	23.9	27	0.0	4	0	1	3.9	60	77	48	18	13	2	0	0	4.5	W	14.3*	W	27+	3	8	20	7.4	
PORTLAND	6	1012.9	1018.4	16.1	8.3	12.2	-1.9	21.1	27	1.1	4	0	0	6.7	71	65	14	13	15	0	0	0	3.1	NW	9.4	NW	12	0	2	29	9.0	27
PORTLAND U	9			16.1	8.3	12.1	-2.9	20.0	27	3.9	4	0	0			71	19	16	15		0	0										
ROSEBURG	154	1000.0		18.3	6.1	12.1	-1.5	22.2	31	0.6	13	0	0			32	-15	9	13	1	0	0	2.1	NW$	7.6	W	24+	0	6	25	8.4	43
SALEM	59	1011.5	1019.0	15.6	5.6	10.8	-3.0	21.1	27	-1.7	4	0	1	6.7	76	54	0	12	13	0	0	0	3.0	S	9.4*	S	9	0	4	27	8.5	
SEXTON SUMMIT R	1169	883.5		11.1	1.7	6.5	-3.5	18.9	7	-2.2	13	0	9			46	-10	12	12	0	25	T	4.7	NNW				4	7	20	7.7	
PACIFIC AREA																																
CANTON ISLAND	2	1008.6	1009.0	31.1	26.1	28.5	-0.3	31.7	20+	24.4	25+	0	0	23.3	77	62	-49	31	15	0	0	0	5.3	ENE	12.5*	ENE	11	15	12	4	4.5	
TAGUAC GUAM R	110			30.0	23.3	26.6	-0.3	30.6	31+	20.0	30+	0	0			170	63	60	22	0	0	0	4.1	E$	9.8	NE	14+					73
KOROR R	29	1005.1	1008.9	30.6	24.4	27.5	0.1	32.2	22+	23.3	29+	5	0	24.4	89	465	93	102	29	2	0	0	2.8	NE	8.0	S	15	0	1	30	9.7	34
PONAPE R	37	1003.4	1008.7	30.0	23.9	27.1	0.2	31.7	12	22.2	31+	0	0	24.4	85	569	53	89	29	2	0	0	3.0	NE	12.1	E	8	0	0	31	9.6	46
TRUK MOEN ISLAND	2	1008.1	1008.4	30.0	24.4	27.4	0.3	31.7	31+	22.2	17	0	0	24.4	81	466	107	168	27	1	0	0	3.0	NNE	13.0	SE	16	0	6	25	8.7	18
WAKE ISLAND	3	1014.3	1014.7	30.0	23.9	26.8	0.2	31.7	31	21.7	13	0	0	21.7	75	26	-26	8	12	0	0	0	5.6	ENE	10.3*	NE	13+	10	18	3	4.5	
YAP R	17	1006.6	1008.6	30.6	24.4	27.4	-0.3	31.7	31+	22.8	13	0	0	25.0	86	367	125	123	28	2	0	0	4.0	NE	14.8	E	13	0	0	31	10.0	75
PENNSYLVANIA																																
ALLENTOWN	115	1004.2	1018.6	23.9	10.6	17.2	1.4	36.1	19	0.6	10	3	0	9.4	65	32	-72	15	7	4	0	0	4.3	ENE	12.1*	W	25+	8	15	8	6.0	

See footnotes at end of table

CLIMATOLOGICAL DATA

METRIC UNITS

State and Station	Elevation (ground)	Pressure		Temperature										Average dew point	Average relative humidity	Precipitation							Wind					No of days (sunrise to sunset)			Sky cover, tenths (sunrise to sunset)	Possible sunshine
												No. of days							No. of days		Snow, Sleet				Fastest mile (1.6 kilometers)							
		Station Ø	Sea level	Average maximum	Average minimum	Average	Departure from normal	Highest	Date	Lowest	Date	Max. 32.2 °C or above	Min. 0 °C or lower			Total	Departure from normal	Greatest in 24 hours	.25 mm. or more	With thunderstorms	Total	Maximum depth on ground	Average speed	Prevailing direction	Speed	Direction	Date	Clear, 0-3	Partly cloudy, 4-7	Cloudy, 8-10		
	M.	Mb.	Mb.	°C.	°C.	°C.	°C.	°C.		C.				C.	%	Mm.	Mm.	Mm.			Mm.	Mm.	M.p.s.		M.p.s.							%
PENNSYLVANIA																																
ERIE	223	991.1	1017.2	22.2	11.7	17.0	3.4	31.1	20	2.2	10+	0	0	9.4	63	37	- 53	11	7	4	0	0	5.9	WSW	14.3*	SSE	29	6	13	12	6.1	
HARRISBURG	102	1004.0	1018.0	24.4	12.2	18.3	1.2	35.0	19	0.0	10	4	1	10.6	65	75	- 24	30	14	8	0	0	3.0	W	13.4	SW	3	6	15	10	6.1	58
PHILADELPHIA	2	1013.8	1018.1	23.9	11.7	17.8	0.8	35.6	19	2.8	12+	3	0	10.0	63	47	- 48	37	8	4	0	0	4.1	WSW	13.0	NW	6	7	13	11	6.4	58
PHILADELPHIA U	11			24.4	13.9	19.2	1.6	36.7	19	7.8	12+	3	0			0		0														
PITTSBURGH	351	987.4	1018.2	25.6	11.7	18.5	3.1	32.8	18	4.4	9	6	0	11.1	65	47	- 52	14	13	6	0	0	3.8	WSW	12.5*	WSW	24	1	17	13	6.8	63
PITTSBURGH U	228			26.1	13.9	19.9	2.7	33.3	18	6.1	9	6	0			58	- 37	19	11		0	0										42
READING U	81	1005.9	1017.9	24.4	12.8	18.4	1.1	35.6	19+	4.4	10	4	0			138	42	84	11	4	0	0	4.2	N$	20.1	NE	19	8	14	9	5.6	64
SCRANTON	287	984.1	1018.2	23.3	10.6	17.0	2.2	33.9	18	1.1	10	4	0	7.2	56	21	- 79	7	6	3	T	0	3.8	ESE	11.6	SW	24+	7	15	9	5.6	67
WILLIAMSPORT	161	999.6	1018.7	24.4	10.6	17.4	1.6	35.0	19+	- 0.6	10	6	1	8.3	61	66	- 37	21	9	5	T	0	3.6	W	12.1*	WNW	31+	5	16	10	6.1	
RHODE ISLAND																																
BLOCK ISLAND	34	1013.5	1017.7	16.7	8.9	12.6	0.2	25.0	19	3.9	13	0	0			40	- 36	22	9	2	0	0						9	11	11	6.1	
PROVIDENCE	17	1012.1	1018.2	18.9	8.9	13.7	-0.5	30.0	31	2.2	13	0	0	6.1	65	54	- 31	29	11	4	0	0	4.9	SSE	15.6*	NW	10	8	10	13	6.1	58
SOUTH CAROLINA																																
CHARLESTON	12	1015.7	1017.8	31.1	17.8	24.4	2.2	36.1	26	10.0	6	13	0	17.8	72	46	- 46	20	8	13	0	0	3.3	S	23.2	NW	21	13	14	4	4.6	79
CHARLESTON U	3			28.9	20.6	24.7	1.7	35.0	27+	15.6	10+	8	0			66	- 12	26	9		0	0	4.4		16.1	N	21					
COLUMBIA	66	1005.0	1017.6	32.[illegible]	16.7	24.8	2.5	36.7	27	8.3	6+	21	0	15.6	63	59	- 31	17	9	10	0	0	2.5	WSW	8.9*	WNW	26+	12	14	5	4.7	72
FLORENCE	45	1012.0	1017.7	32.2	17.2	24.7	2.5	37.8	26	10.6	6	18	0	15.6	64	21	- 53	9	7	10	0	0	3.5	NE	13.0*	S	23+	11	15	5	4.7	
GREENVILLE	308	980.9	1017.6	31.7	17.8	24.7	3.2	37.2	19	8.9	3	17	0	15.0	60	38	- 44	28	5	7	0	0	3.1	NE	10.3	SE	17+	4	17	10	5.8	69
SPARTANBURG	244	988.4	1017.8	31.1	17.2	23.9	3.1	35.6	19	10.6	3	15	0	13.9	60	31	- 51	9	5	8	0	0	3.1	SW	17.9*	E	17	8	14	9	5.4	
SOUTH DAKOTA																																
HURON	391		1010.8	21.1	9.4	15.3	0.9	30.0	4	0.6	1	0	0	11.7	83	195	135	53	17	16	0	0	6.4	SE	29.1	NW	23	2	7	22	7.8	45
RAPID CITY	965		1010.7	20.6	8.9	14.6	1.4	30.0	9	2.8	1	0	0	6.1	66	175	108	56	14	9	0	0	6.0	NNW	18.8	NW	29				7.6	40
SIOUX FALLS	433	960.0	1010.8	23.3	11.1	17.2	2.6	31.1	13+	2.2	1	0	0	11.1	72	154	68	57	16	16	0	0	5.3	E	15.6*	E	21+	4	4	23	8.0	
TENNESSEE																																
BRISTOL	459	964.1	1018.5	29.4	14.4	21.8	3.3	33.3	18	5.0	3	6	0	14.4	68	43	- 45	11	13	16	0	0	1.9	WSW	17.9*	NW	27	8	13	10	5.5	
CHATTANOOGA	204	991.0	1018.3	32.2	16.1	24.0	3.7	36.1	20	6.1	3	21	0	15.6	64	43	- 47	41	5	7	0	0	2.6	S	12.1	W	1	14	8	9	4.8	82
KNOXVILLE	290	983.3	1018.5	30.6	16.1	23.3	3.2	34.4	18	6.7	3	13	0	13.9	60	48	- 41	26	8	12	0	0	3.3	SW	16.1	W	26	9	13	9	5.5	69
MEMPHIS	80	1002.4	1016.9	31.1	18.9	24.9	3.3	35.0	28+	9.4	2	19	0	16.7	62	21	- 86	16	4	4	0	0	3.8	S	11.2	S	30	12	15	4	4.5	85
MEMPHIS U	83			30.6	21.1	25.7	4.1	35.6	17	13.3	2	14	0			40	- 62	36	3		0	0										
NASHVILLE	176	997.4	1017.1	31.1	16.7	24.0	3.7	35.0	19+	7.8	3	16	0	16.7	66	47	- 47	43	3	6	0	0	2.8	S	14.8	W	1	13	10	8	4.8	79
OAK RIDGE	276	986.1		30.0	15.0	22.5	3.1	33.9	19+	4.4	3	13	0			67	- 28	34	7	13	0	0	1.6		17.9Y		26	18	7	6	3.8	
TEXAS																																
ABILENE	536	950.9	1011.1	32.2	18.3	25.2	3.1	36.7	30	6.7	2	20	0	13.3	51	39	- 71	27	2	4	0	0	6.7	SSE	18.8	SE	31	10	10	11	5.5	70
AMARILLO	1099	885.2	1008.1	30.6	13.3	22.1	3.7	37.2	12+	1.1	1	15	0	5.0	41	45	- 41	23	7	7	0	0	7.0	SSW	22.4	S	19	17	8	6	3.8	87
AUSTIN	182	993.0	1013.4	30.6	18.9	24.8	0.8	33.3	24+	12.2	2	7	0	16.7	66	27	- 67	27	1	2	0	0	5.0	SSE	20.1	NW	29	9	11	11	5.5	63
BROWNSVILLE	5	1011.9	1014.5	29.4	21.7	25.7	-0.4	32.8	30	16.7	5	1	0	20.6	77	81	21	75	4	2	0	0	6.9	SE	17.4	E	1	9	15	7	5.2	69
CORPUS CHRISTI	13	1013.9	1015.1	30.6	20.6	25.4	0.2	34.4	30	13.3	5	2	0	20.0	73	6	- 70	5	3	0	0	0	7.3	SSE	16.1	SE	28	6	21	4	5.5	75
DALLAS	147	996.0	1014.3	31.1	18.9	25.2	2.4	35.0	24+	9.4	2	12	0	16.1	59	51	- 72	48	3	3	0	0	7.3	S	18.8	SW	28	13	13	5	4.7	67
DEL RIO U	292			32.8	20.0	26.6	1.3	36.7	25+	12.8	2	24	0			12	- 57	12	1	3	0	0						0	0	0		
EL PASO	1194	883.6	1008.4	31.7	15.0	23.4	1.2	36.7	11	8.3	1	17	0	- 5.6	15	0	- 10	0	0	0	0	0	4.3	WSW	18.8	W	17	23	6	2	1.8	95
FORT WORTH	166	993.5	1014.1	31.7	19.4	25.3	2.7	35.6	23	9.4	2	14	0	16.1	59	40	- 76	33	3	3	0	0	7.9	S	21.5*	ESE	29	13	11	7	4.8	
GALVESTON U	2			26.7	23.3	24.7	0.4	28.9	29	18.3	2	0	0			16	- 55	12			0	0	6.3		14.8	SE	29	0	0	0		87
GALVESTON	2	1014.8	1017.3	27.8	22.8	25.1	0.6	29.4	31+	18.3	5+	0	0	18.9	71	21	- 56	11	3	2	0	0	5.9			SE		12	14	5	4.8	
HOUSTON U	12			30.6	22.2	26.3	1.7	32.2	30+	15.6	2	6	0			43	- 70	17	4		0	0						0	0	0		
HOUSTON	15	1013.1	1016.4	30.0	18.3	24.3	-0.7	32.8	26	12.8	5+	5	0	20.0	80	29	- 81	22	3	3	0	0	5.1	SSE				11	16	4	4.8	81
LAREDO	152	997.3	1012.6	34.4	21.7	28.1	0.9	40.0	28	15.6	2	27	0	16.7	56	12	- 59	10	4	0	0	0	6.6	SE	13.4*	SE	25	13	13	5	4.3	
LUBBOCK	988	900.5	1009.8	32.8	15.0	23.7	3.6	37.8	11	3.3	1	21	0	7.2	41	3	- 78	1	4	8	0	0	8.1	SSE	25.9*	S	12	15	13	3	3.6	
MIDLAND	870	912.1	1008.6	32.8	17.8	25.2	2.2	37.8	11	7.8	1	18	0	6.7	39	4	- 49	3	2	1	0	0	6.5	SSE	15.6*	SSE	16	13	12	6	4.1	
PORT ARTHUR	5	1015.4	1016.9	30.6	18.9	24.5	0.8	33.3	20	12.2	5+	6	0	19.4	77	22	-104	14	3	2	0	0	4.9	S	18.8	W	1	12	14	5	4.7	80
SAN ANGELO	580	944.8	1010.6	33.3	18.3	25.8	2.3	37.8	30+	5.6	2	22	0	12.8	48	7	- 75	5	3	5	0	0	5.8	SSE	14.8*	WNW	28	11	12	8	4.9	
SAN ANTONIO	241	989.5	1014.1	31.7	19.4	25.5	1.4	34.4	24	11.1	2	15	0	17.2	65	33	- 54	33	2	2	0	0	5.7	SSE	14.8	NW	29	8	11	12	5.5	62
VICTORIA	32	1011.1		30.0	19.4	24.8	0.3	32.8	30	12.8	2	4	0			33	- 72	33	1	1	0	0	5.5		19.7Y	S	29	8	18	5	5.2	
WACO	152	993.5	1014.5	31.1	19.4	25.1	1.6	33.9	27+	9.4	2	9	0	16.7	63	56	- 60	55	3	3	0	0	8.0	S	17.9*	SSE	28	10	13	8	5.1	
WICHITA FALLS	303	974.9	1011.1	32.2	17.8	24.9	3.2	37.8	23	8.9	3	17	0	14.4	54	31	- 86	28	6	8	0	0	6.0	SSE	21.5*	WSW	8	14	6	11	4.3	
UTAH																																
MILFORD	1533	841.2		22.2	3.3	12.6	-1.0	30.0	5	- 4.4	1	0	8			25	7	13	6	6	53	25						6	8	17	6.7	
SALT LAKE CITY	1286	864.2	1011.0	21.7	7.8	14.8	0.2	30.6	8	2.2	15+	0	0	4.4	56	54	18	13	12	6	0	0	4.7	S	17.4	S	23	1	14	16	7.5	65

See footnotes at end of table

CLIMATOLOGICAL DATA

METRIC UNITS

State and Station	Elevation (ground)	Pressure		Temperature											Average relative humidity	Precipitation							Wind					No. of days (sunrise to sunset)			Sky cover, tenths (sunrise to sunset)	Possible sunshine
												No. of days							No. of days		Snow, Sleet				Fastest mile (1.6 kilometers)							
		Station Ø	Sea level	Average maximum	Average minimum	Average	Departure from normal	Highest	Date	Lowest	Date	Max. 32.2 °C or above	Min. 0 °C or lower	Average dew point		Total	Departure from normal	Greatest in 24 hours	.25 mm. or more	With thunderstorms	Total	Maximum depth on ground	Average speed	Prevailing direction	Speed	Direction	Date	Clear, 0-3	Partly cloudy, 4-7	Cloudy, 8-10		
	M.	Mb.	Mb.	C.	C.	C.	C.	C.		C.				°C.	%	Mm.	Mm.	Mm.			Mm.	Mm.	M.p.s.		M.p.s.							%
UTAH																																
WENDOVER	1291	866.9		20.6	9.4	15.0	-1.3	31.1	8	2.2	20	0	0			19	3	11	7	4	T	T						4	11	16	6.9	
VERMONT																																
BURLINGTON	101	1001.8	1016.5	20.0	6.7	13.2	-0.1	31.7	19+	- 3.9	8	0	4	5.6	62	57	- 19	15	9	5	0	0	4.0	SSW	14.3	SW	14	8	10	13	6.2	61
VIRGINIA																																
LYNCHBURG	289	993.2		26.7	14.4	20.4	1.9	33.9	19	6.7	3	3	0			42	- 40	15	12	12	0	0	3.2		13.4	NW	25	3	14	14	6.6	50
NORFOLK	8	1016.7	1018.2	25.0	15.0	20.0	0.3	33.3	24	6.1	10	3	0	14.4	73	93	8	27	10	7	0	0	4.2	ENE				8	11	12	5.7	
RICHMOND	49	1011.8	1018.2	28.3	14.4	21.4	2.3	36.1	19+	5.0	10	11	0	15.0	73	104	9	37	10	7	0	0	3.3	SW	20.1	N	8	7	9	15	6.4	63
ROANOKE	358	977.6	1018.6	27.8	14.4	21.1	2.3	35.6	19	8.3	4	4	0	13.3	69	69	- 28	12	16	12	0	0	3.6	WSW	20.6*	N	15	5	13	13	6.4	
WASHINGTON																																
OLYMPIA	58	1011.2	1018.4	15.6	4.4	9.8	-3.1	20.0	16	- 1.7	4	0	4	5.6	76	46	- 5	9	13	0	0	0	3.2	SW	11.2*	WNW	3	0	3	28	8.8	
SEATTLE TACOMA	122	1003.7	1018.0	14.4	6.7	10.3	-2.4	19.4	16	0.6	7+	0	0	6.1	78	46	2	18	15	0	0	0	3.9	SW	11.6*	SW	3	0	9	22	8.5	
SEATTLE	4		1017.9											6.1	71	0		0					3.4	SE								
SEATTLE U	4			15.6	8.9	12.3	-1.8	20.6	16	4.4	4	0	0			38	- 2	15	13		0	0			15.6	SW	3					40
SPOKANE	718	945.1	1014.1	16.1	5.0	10.5	-2.7	22.2	27	- 1.1	4	0	1	3.9	68	42	11	8	13	3	0	0	3.6	SW	13.0	SW	2	2	5	24	8.1	53
STAMPEDE PASS R	1206	879.1		6.1	0.6	3.2	-3.4	13.3	27	- 4.4	4	0	15			99	- 9	21	22	0	150	2083						0	2	29	9.4	
TATOOSH ISLAND	31	1015.2	1018.5	11.7	7.2	9.6	-1.0	13.9	15	5.0	5+	0	0	6.7	83	54	- 22	18	14	0	0	0	5.2	SW	20.1	SW	1	1	9	21	8.2	33
WALLA WALLA U	289	978.7		17.8	8.3	13.2	-2.9	23.9	27	2.8	4	0	0			96	58	26	12	2	0	0	2.5	W$	15.2	W	8	3	7	21	7.6	41
YAKIMA	323	976.0	1014.8	19.4	5.0	12.1	-2.7	26.1	27	- 2.2	4	0	3	2.2	53	28	14	12	10	0	0	0	3.6	NW	11.6*	WNW	3	4	15	12	6.8	
WEST INDIES																																
SAN JUAN P.R. U	5	1012.3	1015.1	29.4	22.2	25.8	-0.1	32.8	9+	18.9	5	3	0	21.1	78	191	10	28	20	6	0	0	3.0	ENE	11.2	E	25+	0	18	13	7.1	48
SWAN ISLAND	9	1012.2		30.0	25.0	27.3	-0.7	30.6	31+	22.2	11	0	0			126	42	114	5	2	0	0						2	21	8	6.5	
WEST VIRGINIA																																
CHARLESTON	286	982.4	1017.5	28.3	13.3	21.0	3.1	33.3	18+	5.0	3	6	0	13.9	68	56	- 38	31	10	8	0	0	2.2	SW	12.1*	NNW	26	8	10	13	6.3	
ELKINS	600	949.9	1018.7	25.6	9.4	17.4		30.6	18	1.7	10	0	0	11.7	73	73		32	15	11	0	0	2.5	SSE	23.2*	WNW	26	2	14	15	7.0	
HUNTINGTON U	252	987.7	1017.7	27.2	13.9	20.6	1.8	33.3	18	6.1	3	5	0	13.9	70	66	- 30	17	14	9	0	0	2.5	SSW	9.4*	WSW	1	7	12	12	6.1	
PARKERSBURG U	189			28.3	14.4	21.3	3.5	35.0	18+	7.8	10	7	0			73	- 21	51	13	6	0	0	2.5		10.7	SW	2					59
WISCONSIN																																
GREEN BAY	208	992.2	1015.0	20.6	10.6	15.5	3.1	30.0	19+	2.2	7	0	0	10.0	71	73	- 5	19	13	10	T	T	4.4	SW	19.2	SW	23	7	5	19	7.0	49
LA CROSSE	199	989.0		22.2	12.8	17.5	2.4	31.1	18+	4.4	9	0	0	10.6	67	96	1	26	12	10	0	0	5.7	S	24.1*	WSW	22	3	12	16	7.3	
MADISON	262	979.4	1014.6	22.2	10.6	16.3	2.9	30.6	18	2.2	9+	0	0	10.6	69	76	- 8	31	12	11	0	0	4.9	S	14.8	SW	5	4	11	16	7.0	50
MILWAUKEE	205	991.4	1016.5	21.1	9.4	15.1	3.2	31.7	19	0.6	3	0	0	10.0	73	55	- 25	18	10	9	0	0	5.3	SSW	14.3	SW	5	8	6	17	6.6	57
WYOMING																																
CASPER	1621	833.7	1009.6	20.0	5.0	12.5	0.8	28.3	9	0.0	15+	0	2	1.7	56	97	45	27	11	8	0	0	5.5	WSW	17.9*	WSW	13	2	10	19	7.6	
CHEYENNE	1867	810.4	1009.4	20.6	5.6	12.8	2.1	28.9	9	- 1.1	1	0	1	0.6	52	69	5	24	13	11	T	T	6.0	WNW	20.6	NW	22	4	13	14	6.8	50
LANDER	1696	831.4	1009.2	19.4	5.0	12.2	0.6	27.8	10	- 0.6	1	0	2	1.1	52	90	23	27	10	5	0	0	3.9	WSW	20.1	SW	15	2	14	15	7.2	57
SHERIDAN	1202	881.1	1008.2	18.3	6.1	12.2	0.2	25.0	19	1.1	6+	0	0	5.0	65	58	- 7	30	15	7	0	0	3.7	WNW	19.2	NW	21	3	7	21	7.9	50

Data from airport unless otherwise specified. U indicates Urban, R indicates Rural, sites.

* Value entered in column headed "Fastest Mile" is the highest observed wind speed. This station is not equipped with an automatic recording wind instrument.

A Maximum hourly average.

+ And also on an earlier date or dates.

Ø Station pressures apply to elevations shown in the "Elevations - Station Pressure" table of the annual issue of this publication.

B Number of days maximum 21.1°C. or above for Alaskan Stations.

$ Wind direction to 8 compass points only.

Y Peak Gust.

Data in this table is obtained by conversion from data in the English Units table.

HEATING DEGREE DAYS

(Base 65°F.)

MAY 1962

State and station	Current season		Normals
	This month	Period July through this month	July through this month
ALABAMA			
Birmingham	1	2509	2780
Huntsville	5	3139	
Mobile	0	1579	1612
Montgomery	2	2039	2137
ALASKA			
Anchorage	621	11186	10450
Annette	489	6726	6775
Barrow	1492	18612	19061
Barter Island	1467	18854	
Bethel	885	13125	12508
Cold Bay	821	9324	9108
Cordova	704	9707	9144
Fairbanks	617	14585	13965
Juneau	627	8902	8546
King Salmon	736	11700	10821
Kotzebue	1068	15279	15500
McGrath	734	14654	14107
Nome	1006	13789	13510
St. Paul	961	10480	10134
Shemya	786	8753	
Yakutat	692	9205	8889
ARIZONA			
Flagstaff	518	7454	7313
Phoenix (U)	0	1468	1492
Phoenix	0	1620	1698
Prescott	217	4617	4516
Tucson	7	1962	1776
Winslow	152	5437	4694
Yuma	0	942	951
ARKANSAS			
Ft. Smith	4	3521	3188
Little Rock	5	3250	2982
Texarkana	1	2675	2362
CALIFORNIA			
Bakersfield	62	2618	2115
Bishop	214	4378	4184
Blue Canyon	516	4592	5517
Burbank	138	1724	1786
Eureka (U)	388	4589	4350
Fresno	65	2870	2532
Long Beach	105	1723	
Los Angeles (U)	97	1448	1432
Los Angeles	110	1743	1959
Mt. Shasta (R)	440	5804	5739
Oakland	211	2869	3044
Point Arguello (R)	330	3591	
Red Bluff	59	2710	2546
Sacramento (U)	88	2723	2595
Sacramento	82	2965	2815
Sandberg (R)	401	4680	4187
San Diego	77	1402	1531
San Francisco (U)	297	2920	2889
San Francisco	251	3131	3257
San Jose (U)	154	2408	2364
Santa Maria	327	3050	2782
COLORADO			
Alamosa	452	8620	8456
Colorado Springs	202	6922	6179
Denver	175	6731	6067
Grand Junction	148	5962	5773
Pueblo	103	6035	5682
CONNECTICUT			
Bridgeport	207	5522	5858
Hartford	230	6199	6108
Middletown	271	5717	
New Haven	226	5640	5974
DELAWARE			
Wilmington	122	5048	4904
DIST. OF COLUMBIA			
Washington (U)	68	4157	4258
Washington	60	4322	4333
FLORIDA			
Apalachicola (U)	0	1167	1307
Daytona Beach	0	814	868
Fort Myers	0	260	405
Jacksonville	0	1160	1243
Key West	0	47	77
Lakeland (U)	0	518	649
Miami	0	161	178
Miami Beach	0	96	123
Orlando	0	524	650
Pensacola (U)	0	1405	1435
Tallahassee	0	1472	1519
Tampa	0	512	674
West Palm Beach	0	209	248
GEORGIA			
Athens	2	2922	2800
Atlanta	4	3040	2826
Augusta	0	2119	2138
Columbus	0	2235	2396
Macon	0	2103	2049
Rome	7	3339	3138
Savannah	0	1863	1710
Thomasville (U)	0	1432	1472
IDAHO			
Boise	275	6339	5798
Idaho Falls 46W (R)	426	8669	8384
IDAHO (Cont'd.)			
Idaho Falls 42NW (R)	391	9077	8753
Lewiston	312	5612	5415
Pocatello	378	7420	6840
ILLINOIS			
Cairo (U)	4	4007	3756
Chicago (Midway)	117	6370	6252
Chicago (O'Hare)	147	6720	
Moline	78	6668	6319
Peoria	63	6555	6046
Rockford	134	7084	
Springfield	30	5799	5661
INDIANA			
Evansville	3	4615	4354
Ft. Wayne	86	6272	6234
Indianapolis	41	5681	5581
South Bend	133	6531	6462
IOWA			
Burlington	46	6453	6067
Des Moines	32	7193	6401
Dubuque	134	7592	7195
Sioux City	44	7413	6958
Waterloo	105	7666	7081
KANSAS			
Concordia (U)	11	5807	5303
Dodge City	13	5277	5043
Goodland	78	6377	6309
Topeka	10	5780	5194
Wichita	8	5034	4564
KENTUCKY			
Lexington	21	4710	4964
Louisville	16	4612	4434
LOUISIANA			
Alexandria	4	2223	
Baton Rouge	0	1689	1595
Lake Charles	0	1569	1543
New Orleans (Audubon Park)	0		
New Orleans	0	1407	1317
Shreveport	1	2288	2117
MAINE			
Caribou	492	8911	9972
Greenville (U)	527	9030	
Portland	438	7373	7564
MARYLAND			
Baltimore (U)	73	4320	4203
Baltimore	100	4845	4782
Frederick	111	5293	4854
MASSACHUSETTS			
Blue Hill Obs. (R)	303	6267	
Boston	271	5638	5749
Nantucket	384	5614	5963
Pittsfield	329	7261	7589
Worcester	329	6799	
MICHIGAN			
Alpena	334	8202	7938
Detroit (City AP)	134	6176	6344
Detroit (M. Wayne Co.)	170	6510	
Detroit (Willow Run)	138	6475	6414
Escanaba (U)	355	8302	8491
Flint	205	7027	7063
Grand Rapids	167	6743	6996
Lansing	194	7017	
Marquette (U)	372	8275	8340
Muskegon	184	6675	6973
S. Ste. Marie	383	8760	9251
MINNESOTA			
Duluth	468	9873	9759
Internat. Falls	394	10321	10429
Minneapolis	198	8538	7773
Rochester	190	8565	8003
St. Cloud	223	8958	8787
MISSISSIPPI			
Jackson	2	2404	2202
Meridian	5	2440	2333
Vicksburg (U)	0	2344	2000
MISSOURI			
Columbia	11	5384	5099
Kansas City	5	5272	4880
St. Joseph	13	6139	5322
St Louis (RFC)	16	4707	4462
St. Louis	25	5113	4688
Springfield	14	4863	4677
MONTANA			
Billings	304	7560	6987
Butte	580	9967	9435
Glasgow	347	9241	8577
Great Falls	432	8252	7389
Havre	360	9010	8088
Helena	404	8252	8053
Kalispell	439	8452	7840
Miles City	259	8117	7744
Missoula	455	8410	7697
NEBRASKA			
Grand Island	48	6901	6272
Lincoln (U)	22	6450	5833
Norfolk	68	7451	7005
North Platte	90	6960	6487
Omaha	22	6683	6128
Omaha N. Omaha AP	34	7090	
Scottsbluff	177	6944	6760
Valentine	167	7551	6992
NEVADA			
Elko	453	7484	7152
Ely	490	7791	7243
Las Vegas	30	2783	2425
Reno	409	6290	5871
Tonopah	347	6106	5722
Winnemucca	374	6821	6358
NEW HAMPSHIRE			
Concord	341	7014	7530
Mt. Washington Obs. (R)	847	12662	
NEW JERSEY			
Atlantic City	134	4806	
Atlantic City (U)	202	4530	4717
Newark	120	4940	5241
Trenton (U)	134	4972	5057
NEW MEXICO			
Albuquerque	78	4654	4389
Clayton	74	5369	5114
Raton	201	6374	6330
Roswell	19	3840	3424
Silver City	98	3967	
NEW YORK			
Albany	211	6619	6912
Binghamton	246	7221	7449
Buffalo	195	6589	6766
New York (U)	123	4671	5032
New York (LaGuardia)	129	4848	4979
Rochester	181	6502	6809
Schenectady	198	6477	7010
Syracuse	172	6354	6483
NORTH CAROLINA			
Asheville (U)	27	4001	4067
Cape Hatteras (R)	34	2744	2392
Charlotte	5	3192	3205
Greensboro	15	3914	3810
Raleigh	11	3613	3369
Wilmington	4	2546	2323
Winston-Salem	12	3741	3721
NORTH DAKOTA			
Bismarck	304	9050	8917
Devils Lake (U)	425	10275	9803
Fargo	258	9410	9173
Grand Forks CAA	311	9817	
Pembina			
Williston (U)	399	9350	8930
OHIO			
Akron	104	6094	6153
Cincinnati (U)	24	4584	4532
Cincinnati	28	4890	5172
Cincinnati Obs.	33	4979	4857
Cleveland	124	6085	5960
Columbus	76	5829	5584
Columbus (U)	59	5380	5255
Dayton	70	5738	5558
Mansfield	111	6250	
Sandusky (U)	108	5790	5818
Toledo	125	6435	6334
Youngstown	140	6404	6119
OKLAHOMA			
Oklahoma City	5	3886	3644
Tulsa	3	4186	3584
OREGON			
Astoria	451	5192	4773
Burns (U)	493	7376	6759
Eugene	396	4910	4654
Meacham	689	7937	7561
Medford	325	5114	4478
Pendleton	334	5375	5153
Portland (U)	341	4309	4073
Portland	339	4671	4539
Roseburg	340	4649	4444
Salem	414	5069	4483
Sexton Summit (R)	652	6416	5947
PENNSYLVANIA			
Allentown	148	5805	5855
Erie	168	6188	6480
Harrisburg	120	5388	5244
Philadelphia (U)	95	4404	4523
Philadelphia	133	5300	4866
Pittsburgh (U)	63	5096	5035
Pittsburgh	100	5800	5869
Reading (U)	115	4984	5049
Scranton	155	6193	6012
Williamsport	137	5844	5873
RHODE ISLAND			
Block Island	313	5668	5747
RHODE ISLAND (Cont'd.)			
Providence	274	5779	6067
SOUTH CAROLINA			
Charleston (U)	0	1810	1769
Charleston	0	2128	1973
Columbia	0	2545	2435
Florence	1	2545	2507
Greenville	4	2960	3060
Spartanburg	5	3106	3044
SOUTH DAKOTA			
Huron	175	8591	7822
Pierre	150	7863	
Rapid City	213	7361	7387
Sioux Falls	117	8022	7768
TENNESSEE			
Bristol	18	4034	4148
Chattanooga	5	3301	3384
Knoxville	5	3652	3590
Memphis (U)	0	3301	3006
Memphis	5	3387	3137
Nashville	5	3766	3513
Oak Ridge	19	3817	4028
TEXAS			
Abilene	8	2747	2657
Amarillo	23	4239	4345
Austin	0	1745	1713
Brownsville	0	577	617
Corpus Christi	0	998	1011
Dallas	2	2495	2272
Del Rio (U)	0	1442	
El Paso	3	2732	2641
Ft. Worth	2	2584	2361
Galveston (U)	0	1135	1211
Galveston	0	1168	1233
Houston (U)	0	993	1276
Houston	0	1307	1388
Laredo	0	922	781
Lubbock	13	3689	3587
Midland	7	2786	2565
Port Arthur	0	1462	1517
San Angelo	6	2490	2107
San Antonio	0	1520	1579
Victoria	0	1259	1126
Waco	1	2110	2025
Wichita Falls	3	3140	3025
UTAH			
Milford	310	6820	6368
Salt Lake City	220	6500	5785
Wendover	211	6135	
VERMONT			
Burlington	324	7853	7793
VIRGINIA			
Lynchburg	50	4313	4148
Norfolk	50	3713	3454
Richmond	32	4072	3955
Roanoke	32	4214	4152
WASHINGTON			
Olympia	469	5687	5318
Seattle (U)	327	4356	4331
Seattle	336	4649	4665
Seattle-Tacoma	438	5123	5120
Spokane	430	7104	6706
Stampede Pass (R)	834	8996	8711
Tatoosh Island (R)	482	5609	5394
Walla Walla	317	5368	
Walla Walla (U)	284	5111	4810
Yakima	344	6097	5792
WEST VIRGINIA			
Charleston	37	4516	4409
Huntington (U)	36	4452	4068
Parkersburg (U)	32	4804	4737
WISCONSIN			
Green Bay	221	8236	8152
La Crosse	158	7714	7576
Madison	185	7809	7335
Milwaukee	254	7430	7096
WYOMING			
Casper	324	7977	7492
Cheyenne	303	7774	7389
Lander	337	8616	8140
Sheridan	339	7219	7742

Data from airport unless otherwise specified.
U indicates Urban, R indicates Rural, sites.

STORM SUMMARY

MAY 1962

STATE	TORNADOES					HAILSTORMS				WINDSTORMS				LIGHTNING				‡ HEAVY SNOWSTORMS AND BLIZZARDS				# ICE STORMS				∅ ALL OTHER			
								†DAMAGE				†DAMAGE				†DAMAGE				†DAMAGE				†DAMAGE				†DAMAGE	
	NUMBER	DAYS	DEATHS	INJURIES	†DAMAGE	DEATHS	INJURIES	PROPERTY	CROPS	DEATHS	INJURIES	PROPERTY	CROPS	DEATHS	INJURIES	PROPERTY	CROPS	DEATHS	INJURIES	PROPERTY	CROPS	DEATHS	INJURIES	PROPERTY	CROPS	DEATHS	INJURIES	PROPERTY	CROPS
Alabama										1	1	5	0	0	0	4	0												
Alaska										3	9	0	0													0	0	4	0
Arizona *																													
Arkansas						0	0	0	5	0	5	5	0	1	0	0	0												
California	1	1	0	0	4					1	3	4	4	0	0	1	0									0	4	0	0
Colorado	11	7	0	0	4	0	0	4	5	0	0	4	4	0	0	5	0									0	0	4	4
Connecticut	1	1	1	50	6	0	0	3	3																				
Delaware *																													
Florida	2	2	0	1	3	0	0	N	N	0	0	5	0	3	1	5	0												
Georgia						0	0	3	4	0	1	4	0	1	1	3	0												
Hawaii *																													
Idaho	1	1	0	0	4	0	0		5	0	0	4	4	0	0	3	0												
Illinois	4	4	0	?	6	0	0	3	3	0	?	°5	C	0	0	5	0												
Indiana	2	1	0	0	4	0	0	3	2	0	0	3	0	1	4	5	0												
Iowa	10	5	1	5	6	0	0	6	4	0	4	6	5	4	6	5	0									1	0	5	4
Kansas	35	11		4	6		1	5	6		6	6			2		5												
Kentucky	1	1	0	0	0	0	0	3	3	0	0	4	3	2	2	3	0												
Louisiana						0	0	°3	C																				
Maine						0	0	0	2	0	0	4	0	0	0	4	0									0	0	2	0
Maryland						0	0	2	5	0	0	4	3	0	1	4	4												
Massachusetts						0	0	3	0	0	0	4	0	1	4	6	0									0	0	4	0
Michigan						0	0	4	C	1	0	5		2	2	4													
Minnesota	6	2	0	3	5					0	0	6	0	0	0	5	0									0	0	4	0
Mississippi										0	0	°4	C																
Missouri	4	4	0	1	4	0	0	4	5	0	5	4	5	3	1	4	0												
Montana	2	2	0	0	4	0	0	6	4					0	1	0	0												
Nebraska	28	10	0	21	7	0	0	4	6	0	1	6	4	0	1	4	5									0	0	5	4
Nevada *																													
New Hampshire						0	0	3	4	0	0	4	0	0	1	5	0									0	0	4	0
New Jersey	1	1	0	1	5																								
New Mexico	7	2	0	1	5	0	0	4	5																				
New York								3				5		2		6													
North Carolina						0	0	4	5	1	1	6	4	2	5	5	0									1	0	0	0
North Dakota										0	0	4	0																
Ohio	2	2	0	0	5	0	0	3	0																				
Oklahoma	33	10	0	15	6	0	0	6	6	0	25	5	5	1	5	5	0									0	0	5	4
Oregon	1	1	0	0	3	0	0	4	5																				
Pennsylvania	1	1	0	0	4	0	0	5	3					2	0	5	0												
Puerto Rico *																													
Rhode Island *																													
South Carolina	1	1	0	2	4	0	0	3	5	0	0	3	3	0	0	3	0												
South Dakota	M	6	0	33+	6	0	0	4	0	0	0	5	0	0	0	3	0												
Tennessee						0	0	6	3	0	0	3	0	1	3	0	0												
Texas	25	9	1	16	6	0	1	5	6	0	7	5	5	1	2	4	0									2	0	4	4
Utah																				3(?)									
Vermont	3	1	0	0	4	0	0	3	3					0	0	4	0									0	0	4	0
U. S. Virgin Is.*																													
Virginia	2	2	0	0	?	0	0	?	?	1	2	?	?	1	0	3	?												
Washington	1	1	0	0					4																				
West Virginia *																													
Wisconsin						0	0	3	0	0	1	5	0	0	1	5	0												
Wyoming	3	2	0	0	3	1	0	°4	C																				

* No occurrence of storms or unusual weather phenomena.
‡ Includes heavy sleet storm.
# Freezing drizzle and freezing rain, commonly known as glaze.
∅ For breakdown of "All Others", and for detailed listing of other storms, see the U. S. Weather Bureau monthly publication STORM DATA.
C Crop Damage
° Includes Crop Damage
N Numerous, Total damages unavailable.
M Numerous on 15th and 21st, scattered on 12th and 17th.

† Storm damages are placed in categories varying from 1 to 9 as follows:

1	Less than $50
2	$50 to $500
3	$500 to $5,000
4	$5,000 to $50,000
5	$50,000 to $500,000
6	$500,000 to $5,000,000
7	$5,000,000 to $50,000,000
8	$50,000,000 to $500,000,000
9	$500,000,000 to $5,000,000,000

GENERAL SUMMARY OF RIVER AND FLOOD CONDITIONS

MAY 1962

Several villages and towns in Alaska were flooded due to ice jams on the Tanana, Kuskokwim, and Yukon Rivers. Residents of Minto Village on the Tanana River, Aniak on Kuskokwim, and Fort Yukon on the Yukon River were evacuated to higher ground and many homes were inundated.

Flooding reported elsewhere in the United States was mostly light.

HUDSON BAY DRAINAGE

Minor flooding occurred on Red Lake River at Crookston, Minn., and on the Red River of the North from Wahpeton, N. Dak., to Grand Forks, N. Dak. Middle River at Argyle, Minn., and the Buffalo River near Dilworth, Minn., had monthly discharges exceeding those for the period of record at each river.

ATLANTIC SLOPE DRAINAGE

Due to heavy rains during April, the lower regions of the Savannah River remained above flood stage near Clyo, Ga., during the first few days of May. The river at Clyo was above flood stage from March 1 to May 9, for a total of 69 days. No damage is known to have occurred during May.

EAST GULF OF MEXICO DRAINAGE

Moderately heavy rains on April 29 caused the Apalachicola River to rise above flood stage at Blountstown, Fla., on May 2. It crested slightly above flood stage on the same date and receded within its banks on May 3. No damages resulted.

This was the driest month since October 1961 and the driest May since 1936 within the boundaries of the Chattahoochee, Flint, and Apalachicola River Basins. The light and widely scattered nature of rainfall during May led to conditions of drought that were not alleviated until the closing days of May when light to moderate rains fell generally over Georgia and the panhandle of Florida.

At Montgomery, Ala., May 1962 was the sixth driest May of record, being exceeded by 0.82 inch in 1877, 0.68 inch in 1897, 0.50 inch in 1898, 0.69 inch in 1914, and 0.68 inch in 1941. Incomplete reports indicate that a somewhat similar condition occurred over the entire State of Alabama. Municipal water supplies were critically low in several cities. Streams and ground water level were not as low at the end of May 1962 as they were at the end of May 1954 due to the above normal rainfall in January, March, and April 1962. Heavy local showers during the last 2 days of May 1962, tended to relieve the drought situation in scattered areas.

Heavy precipitation during the last week of April caused the Leaf and Pascagoula Rivers in Mississippi to rise above flood stage. The Pearl River in Mississippi was already in flood from the heavy rainfall (2 to 6 inches) on April 11-12. By the end of the first decade in May, the flooded rivers had receded. Flooding on the Pearl, Leaf, and Pascagoula Rivers was mostly confined to low-lying farm- and timberlands, and damage was little or none at all, although some of the flooded farmland had to be replanted.

MISSISSIPPI SYSTEM

Upper Mississippi Basin.--A general rainfall of 2 to 4 inches on May 22-23 over the Upper Mississippi Basin caused a 1- to 4-foot overflow along the lower Minnesota River from Carver, Minn., downstream to Mendota. Near flood stage or above occurred from Libby downstream to St. Cloud, Minn., along the Mississippi River. The flow from the Minnesota coupled with the rise on the Mississippi produced a 12.5 foot crest at St. Paul, Minn., (flood stage 14 feet). The crest from St. Paul downstream was generally 1 to 2 feet below flood stage. Damage due to the overflow at and around Libby and Fort Ripley, Minn., was slight. Greatest loss was over the lower Minnesota River Valley from Carver downstream, where truck gardeners will have to replant some of their vegetables as many fields were flooded and seed rotted in the ground.

Flooding on the Maquoketa and Wapsipinicon Rivers in Iowa during May was minor. It was due to localized heavy rains. Damage in both cases was negligible.

Minor flooding occurred on the Skunk and lower Des Moines Rivers in Iowa from the heavy local rains during the evening of the 7th. Heavy rains again towards the end of the month caused additional minor flooding along these streams and along the Middle and Iowa Rivers. The flooding was confined largely to waste land along the banks of the rivers.

Locally heavy rains caused flooding along the Vermillion River in Illinois on the 11th and 12th and on the Sangamon River between the 10th and 15th and on the 18th. There was very little damage as flooding was limited to bottom land. The lower reaches of the Illinois River were at or above flood stage at the beginning of the month due to heavy rains in April. From Meredosia and below to the mouth of the Illinois, the river remained near, or a little above flood stage until the last day of the month. A flat crest was reported from the 15th through the 19th. Heavy rains in the beginning of the month in the Meramec Basin produced a rapid rise, and minor flooding at Pacific, Mo. Damage was minor and limited to flooding of secondary highways and access roads for a short period.

Missouri Basin.--Due to heavy rains in central Montana, Spring Creek, a tributary of the Judith River, overflowed its banks in the city of Lewistown, Mont., from the 20th to the 22d. Most of main street was flooded and residents placed sand bags to prevent flooding of basements. The heavy rains also caused a washout of roads between Lewistown and Judith Gap (about 30 miles south). The most severe washout was near Judith Gap where water was backed up in a normally dry Coulee by ice and hail forming a jam. Forty-five feet of Montana Highway No. 19 was carried away, closing the road for a short time.

Hawk Creek which flows through the town of Musselshell, Mont., and empties into the Musselshell River, overflowed its banks and flooded the town on the 21st due to heavy rains on the 20th. Basements were flooded, water wells polluted, and there was other damage to property along Hawk Creek.

Heavy rains caused three creeks, which form the South Fork of the Sun River, to go out of their banks on the 25th and 26th and flood the town of Augusta, Mont. Most of the damage was confined to washing of the lowlands along the stream banks, washing out farm bridges, and flooding basements.

During the last 10 days of May, the lower reaches of the right-bank tributaries to the Missouri in South Dakota were reported bankfull to slightly over banks. The James River reached 0.5 foot over banks at Huron, S. Dak., and as much as 3 feet over banks from Mitchell on down stream. The Big Sioux River reached about 1 foot over banks from the mouth of the Rock River down to Sioux City, Iowa. About 15,000 acres of flat bottom lands were flooded along the James River from Woonsocket to near Scotland, S. Dak. Most of this area was flooded earlier in March and April. The only loss of any consequence is the possible loss of crops for this year, if planting is delayed too far into the summer season. This flooding was due to showery weather that began on the 11th and continued through the remainder of the month.

Minor flooding occurred along the North Branch of the Elkhorn River in the vicinity of Pierce, Nebr., on the 22d and 23d, due to heavy rain (1.75 to 2.25 inches) during the night of the 20-21st. Near bankfull stage occurred in the reach from Osmond, Nebr., southward to near Norfolk, Nebr. No damage was reported.

The flooding on the Nishnabotna and Nodaway Rivers in Iowa, the Nemaha River in Nebraska, and on the Platte and Grand Rivers in Missouri was due to generally heavy rains during the night of the 28-29th. Thunderstorms, mostly nighttime, occurred daily from the 25th to the 27th. Rains of over 2 inches fell over the Missouri River and tributaries below Omaha, Nebr., to Leavenworth. Rains of over 4 inches occurred at Randolph and Red Oak, Iowa, and Auburn and Pawnee City, Nebr. The flooding was over agricultural land and some replanting was necessary.

Flooding occurred on tributary streams in the Smoky Hill, Big Blue, and Kansas Rivers in Kansas towards the end of the month due to heavy rains on the 27-28th. Flooding on the Black Vermillion at Frankfort, Kans., had been exceeded in recent years only in 1959, when flood waters were 12 to 15 inches higher in the stores, but the Channel crests were about the same. Fancy Creek at Winkler, Kans., was notably high on the 28th and Rock Creek at Louisville, Kans., on the 29th. Overflows on the upper Marais des Cygnes and lower Big Blue Rivers were comparatively minor. Substantial within banks rises moved down the lower Marais des Cygnes as the period ended. Damages were relatively light in most areas. Heavier losses were indicated on Stranger Creek and considerable expense incurred on the Black Vermillion River.

Ohio Basin.--General rains on the 8th and 11th resulted in minor flooding on the 12th on the Muscatatuck at Crothersville, Ind., and on the Wabash at Montezuma, Ind. The rainfall averaged near 2 inches, except over 3 inches in a small area above the confluence of the East Fork and White Rivers. Little or no damage resulted.

Moderate flooding occurred on the Saline River near Harrisburg, Ill., during the first few days of the month, due to 1 to 2 inch rains on April 30 and May 1. No losses were reported.

Arkansas Basin.--The lower Black River was out of its banks at Black Rock, Ark., from the 2d to the 5th, due to rainfall during the period from April 28 to May 1. Flood damage was minor, being limited to the loss of the use of lowlands for grazing purposes.

Red Basin.--The flooding on the Sulphur River at Naples, Tex., from the 1st to 9th was due to rains that fell during the latter part of April. The main loss was the lack of use of grazing lands.

Atchafalaya Basin.--The Atchafalaya River at Morgan City, La., remained above flood stage from April 27 until 9 a.m. on May 2. Flood stage was reached again for a few hours on the 2d and on the 4th. The highest stage reached was 7.6 feet on May 1. The light flooding was due to strong southerly winds. There was no damage.

WEST GULF OF MEXICO DRAINAGE

The Calcasieu River was near flood stage in the upper portion in the beginning of the month. The general rains over the basin during the 24 hours ending at 8 a.m. on the 1st were sufficient to cause light flooding at Hineston, La., from the 2d to the 6th.

The Lake Fork River went above flood stage at Quitman, Tex., on April 30 and continued in flood until May 1. The Sabine River went out of its banks at Mineola, Tex., on April 27 and continued in flood until the 4th. Heavy general rains fell over the basin during the 24 hours ending at 8 a.m. on the 1st. The rainfall averaged 2.3 inches from Bon Wier northward to above Milam, Tex. The Sabine rose 3.5 feet at Milam, Tex., to slightly above bankfull stage by the 4th. Light flooding occurred at Gladewater, Bon Wier, and Deweyville, Tex., between the 4th and 12th. Flooding was confined to the lowlands and no damages resulted.

The flooding on the lower Trinity at Liberty, Tex., from the 2d to the 9th was due to heavy rains from April 24 to May 1. The Neches River approached within 2 feet of flood stage at Rockland and Evadale, Tex.

Bankfull stages were exceeded on the Rio Grande at Espanola and Albuquerque, N. Mex., on a few days during the first half of the month. Stream flow was contained well within the levees.

Columbia Basin.--Henrys Fork went above flood stage near Rexburg, Idaho, on the 6th and continued above flood stage until the 13th. It crested on the 7th, 0.7 foot above flood stage.

May 1962 was cold and wet throughout the Columbia Basin. Temperature-wise it was one of the coldest Mays of record, with departures averaging 2° to 5° F. below normal over the Pacific Northwest and British Columbia. Rainfall and a mild warm spell produced a sharp rise on the Snake River at Clarkston, Wash., where the flow jumped from 90,000 c.f.s. early on the 24th to a crest of near 138,000 c.f.s. the afternoon of May 25. This Snake flow combined with the increases from Grand Coulee caused the Columbia to rise from a stage of 9.3 feet at Vancouver, Wash., on the 25th to 16 feet (flood stage) on the 31st. The rising trend continued until June 6, when it crested at a stage of 16.8 feet, 0.8 foot above flood stage. Only lowland grazing areas around Vancouver Lake were inundated during this rise.

FLOOD STAGE DATA

(All dates in May unless otherwise specified)

River and station	Flood stage	Above flood stages -dates		Crest *	
		From—	To—	Stage	Date
HUDSON BAY DRAINAGE	Ft.			Ft.	
Red River of the North Basin					
Red Lake: Crookston, Minn.	15	24	30	#20.2	25
Red River of the North: Wahpeton, N. Dak.	10	20	27	#13.4	25
Moorhead, Minn	17	20	June 4	#27.5	29
Grand Forks, N. Dak.	28	26	June 8	#33.9	29
ATLANTIC SLOPE DRAINAGE					
Savannah: Clyo, Ga.	11	Mar. 1	9	15.0 14.4	Mar. 7 20-23
EAST GULF OF MEXICO DRAINAGE					
Apalachicola: Blountstown, Fla.	15	2	3	15.2	2
Leaf: Beaumont, Miss.	20	Apr. 30	4	25.5	2
Pascagoula: Merrill, Miss.	22	2	5	23.5	3
Pearl: Jackson, Miss.	18	Apr. 3	4	33.75	Apr. 19
Monticello, Miss.	19	Apr. 14	2	24.9	Apr. 25
Columbia, Miss.	17	Apr. 23	2	22.1	Apr. 29
Bogalusa, La.	15	Apr. 2	8	22.0	1
Pearl River, La.	12	Apr. 5	9	16.55	2
MISSISSIPPI SYSTEM					
Upper Mississippi Basin					
Minnesota: Carver, Minn.	18	25	June 2	19.6	28
Savage, Minn.	698	Apr. 3 24	May 1 June 6	706.4 702.05	Apr. 8 30
Mendota, Minn.	699	27	June 2	700.2	30
Maquoketa: Maquoketa, Iowa	13	29	29	14.25	29
Wapsipinicon: Independence, Iowa	12	6	6	12.6	6
DeWitt, Iowa	10	11	15	10.8	13
Iowa: Wapello, Iowa	10	31	June 1	11.4	31
Skunk: Oskaloosa, Iowa	15	8 29	10 June 1	16.5 16.1	8 31
Sigournay, Iowa	16	29	30	18.9	29
Raccoon: Van Meter, Iowa	13	29		14.3	29
Middle: Indianola, Iowa	14	29	30	16.2	29
Des Moines: Tracy, Iowa	14	30	31	14.8	30
Eddyville, Iowa	15	8 30	[illegible] June 1	15.65 16.7	8 31
Vermillion: Lowell, Ill.	10	11	12	10.4	11
Sangamon: Monticello, Ill.	11	10 18	15 18	12.3 11.2	11 18
Illinois: Meredosia, Ill.	428	Jan. 13 9	May 5 31	429.4 440.4 429.7	Mar. 7 Mar. 31 15-19
Meramac: Pacific, Mo.	11	1	4	14.3	3
Missouri Basin					
James: Huron, S. Dak.	11	24	26	11.5	25
Big Sioux: Hawarden, Iowa	15	24	26	15.9	25
Akron, Iowa	16	25	27	16.9	26
North Branch Elkhorn: Pierce, (nr.), Nebr.	12	22	23	12.8	23
Nishnabotna: Red Oak, Iowa	15	29	29	#15.3	31
Randolph, Iowa	19	29	29	22.0	29
Hamburg, Iowa	18	29	June 1	#24.3	29
Nemaha: Falls City, Nebr.	20	29	29	21.0	29
Nodaway: Clarinda, Iowa	14	29	29	16.3	29
Platte: Rosendale, Mo.	13	30	30	#16.55	30
Agency, Mo.	20	29	31	#23.8	30
Chapman Creek: Chapman, Kans.	19	29	29	19.0	29
Clark Creek: Junction City (nr), Kans.	T10	28	29	16.4	28
Fancy Creek: Winkler, Kans.	11	20	20	12.6	20
Black Vermillion: Frankfort, Kans.	19	28	30	29.4	29
Big Blue: Barneston, Nebr.	18	29	29	29.15	29
Blue Rapids, Kans.	1101	29	29	1103.4	29
MISSISSIPPI SYSTEM (Cont'd.)	Ft.			Ft.	
Missouri Basin (Cont'd.)					
Vermillion Creek: Wamego,nr,Kans.	24	28	29	28.6	29
Stranger Creek: Tonganoxie, Kans.	22	29	31	24.5	30
Grand: Pattonsburg, Mo.	25	30	30	#25.6	30
Chillicothe, Mo.	24	29	31	28.05	30
Sumner, Mo.	26	29	June 2	#31.3	31
Brunswick, Mo.	12	30	June 2	#16.0	31
Rock Creek: Louisville, Kans.	15	28	29	33.2	29
Soldier Creek: Delia, Kans.	17	29	29	20.4	29
Marais Des Cygnes: Quenemo, Kans.	28	29	30	31.5	30
Missouri: Rulo, Nebr.	17	29	30	18.45	29
St. Joseph, Mo.	17	29	30	#19.2	29-30
Lexington, Mo.	22	30	31	23.9	31
Waverly, Mo.	18	30	31	#21.0	31
Ohio Basin					
Muscatatuck: Crothersville, Ind.	T16	12	12	17.6	12
Wabash: Montezuma, Ind.	14	12	12	14.0	12
Saline: Harrisburg, Ill.	13	1	4	18.6	2
Arkansas Basin					
Black: Black Rock, Ark.	14	2	5	14.8	4
Red Basin					
Sulphur: Naples, Texas	22	1	9	26.7	3
Atchafalaya Basin					
Atchafalaya: Morgan City, La.	7	Apr. 27 2 4	2 2 4	7.6 7.05 7.05	1 2 4
WEST GULF OF MEXICO DRAINAGE					
Calcasieu: Hineston, La.	12	2	6	13.1	5
Lake Fork: Quitman, Texas	16	Apr. 30	1	16.7	Apr. 30
Sabine: Mineola, Texas	14	Apr. 27	4	16.6	1
Gladewater, Texas	26	5	9	26.9	7
Bon Wier, Texas	17	4	5	17.3	4
Deweyville, Texas	14	6	12	14.3	8
Trinity: Liberty, Texas	24	2	9	26.35	4
Rio Grande: Espanola, N. Mex.	7	1 6	3 15		
Albuquerque, N. Mex.	6	1 7 13	1 7 13	6.15	7
PACIFIC SLOPE DRAINAGE					
Columbia Basin					
Henrys Fork: Rexburg, Idaho	8	6	13	8.7	7
Columbia: Vancouver, Wash.	16	31	1/	16.8	June 6

* Provisional
# Highest stage observed
T Tentative
1/ Continued at the end of month

RAWINSONDE DATA

Average monthly values

MAY 1962

Standard pressure surface (mb.)	ALBANY, N. Y. (1008 MB.)					
	Number of observations	Dynamic height	Temperature	Relative humidity	Wind	
					Direction	Speed
SURFACE	31	86	11.6	76	226	3.3
1,000	31	153	10.6	72	216	3.9
950	31	579	10.3	64	255	5.1
900	31	1,031	9.2	60	291	8.5
850	31	1,503	7.0	61	296	13.8
800	31	2,000	4.4	60	302	16.5
750	31	2,518	1.9	51	298	17.5
700	31	3,079	- .7	45	299	19.6
650	31	3,659	- 3.7	43	298	23.3
600	31	4,296	- 7.3	39	298	25.8
550	31	4,961	-11.3	38	299	29.0
500	31	5,695	-16.0	35	298	31.9
450	31	6,474	-21.4		297	34.2
400	31	7,340	-27.5		296	36.3
350	31	8,287	-34.6		296	39.2
300	31	9,346	-42.7		296	39.2
250	31	10,554	-51.7		301	41.4
200	31	11,978	-58.4		300	44.7
175	31	12,814	-59.9		302	40.2
150	31	13,778	-59.6		303	31.3
125	31	14,922	-58.9		300	28.0
100	31	16,323	-59.2		305	21.6
80	31	17,720	-59.8		306	12.2
70	30	18,559	-59.1		331	8.0
60	30	19,530	-57.4		342	5.4
50	28	20,694	-55.9		7	4.9
40	26	22,117	-54.3		14	5.2
30	25	23,972	-52.7		343	5.2
25	24	25,156	-51.7		331	5.6
20	21	26,622	-49.3		309	6.0
15	16	28,497	-46.1		295	6.8
10	6	31,177	-40.5			
7						
5						

Standard pressure surface (mb.)	ALBUQUERQUE, N. MEX. (837 MB.)					
	Number of observations	Dynamic height	Temperature	Relative humidity	Wind	
					Direction	Speed
SURFACE	31	1,619	10.3	33	1	1.0
1,000	31	102				
950	31	541				
900	31	1,003				
850	31	1,487				
800	31	1,996	13.1	24	264	4.5
750	31	2,531	9.5	26	267	9.5
700	31	3,103	5.2	30	259	13.0
650	31	3,700	.3	36	252	15.5
600	31	4,339	- 4.5	35	242	18.8
550	31	5,015	- 9.6	36	238	25.5
500	31	5,748	-14.8		237	30.7
450	31	6,531	-20.5		236	34.6
400	31	7,400	-27.0		235	35.2
350	31	8,348	-34.2		238	35.8
300	31	9,408	-42.4		244	42.0
250	30	10,614	-51.0		246	41.6
200	30	12,039	-58.6		254	45.3
175	30	12,876	-59.1		255	41.4
150	30	13,844	-59.0		253	35.9
125	30	14,985	-60.7		253	29.7
100	30	16,365	-63.2		248	23.5
80	30	17,732	-64.4		245	13.4
70	30	18,561	-62.6		246	5.8
60	30	19,506	-60.8		203	2.1
50	30	20,648	-57.7		107	3.7
40	30	22,062	-55.9		88	6.0
30	29	23,902	-52.5		76	6.0
25	29	25,084	-50.9		80	4.7
20	29	26,546	-47.8		34	1.0
15	25	28,458	-44.7		230	1.7
10	17	31,205	-40.5			
7						
5						

Standard pressure surface (mb.)	AMARILLO, TEXAS (889 MB.)					
	Number of observations	Dynamic height	Temperature	Relative humidity	Wind	
					Direction	Speed
SURFACE	31	1,095	14.5	63	197	7.8
1,000	31	78				
950	31	519				
900	31	991				
850	31	1,474	18.5	40	225	21.8
800	31	1,993	16.6	31	236	19.6
750	31	2,534	12.8	30	236	16.3
700	31	3,112	8.2	29	234	16.1
650	31	3,715	3.4	30	232	17.3
600	31	4,362	- 1.9	30	234	19.8
550	31	5,040	- 7.3	31	240	20.4
500	31	5,781	-13.0	32	239	23.5
450	31	6,565	-19.0		240	25.5
400	31	7,441	-25.8		244	27.6
350	31	8,394	-33.2		247	29.7
300	30	9,458	-41.7		248	33.2
250	30	10,670	-50.4		251	38.1
200	30	12,093	-59.2		258	41.6
175	30	12,926	-61.4		256	45.1
150	30	13,884	-60.3		254	42.9
125	29	15,023	-61.3		248	35.9
100	29	16,401	-63.0		243	24.7
80	28	17,771	-64.5		243	13.6
70	28	18,594	-63.3		239	6.8
60	27	19,542	-61.2		210	3.3
50	27	20,681	-58.3		109	3.3
40	27	22,097	-55.3		78	5.4
30	26	23,944	-52.3		69	4.7
25	26	25,128	-50.3		72	3.7
20	23	26,598	-47.9		95	2.9
15	14	28,525	-44.7		255	2.5
10						
7						
5						

Standard pressure surface (mb.)	ANCHORAGE, ALASKA (1011 MB.)					
	Number of observations	Dynamic height	Temperature	Relative humidity	Wind	
					Direction	Speed
SURFACE	31	29	4.8	75	176	1.7
1,000	31	120	5.2	68	178	3.3
950	31	539	3.2	64	180	4.3
900	31	974	.4	66	170	5.4
850	31	1,430	- 2.8	71	158	6.2
800	31	1,908	- 5.6	71	159	7.4
750	31	2,409	- 8.2	68	162	6.0
700	31	2,946	-10.7	66	190	5.2
650	31	3,506	-14.1	64	202	4.7
600	31	4,116	-17.7	56	220	3.9
550	31	4,756	-21.6	53	233	3.9
500	31	5,458	-26.3	50	248	6.4
450	31	6,205	-31.7	47	263	8.9
400	31	7,034	-37.8	49	269	9.5
350	31	7,942	-44.2		275	11.1
300	31	8,961	-50.2		282	13.8
250	31	10,138	-53.6		276	19.2
200	31	11,583	-50.3		283	15.5
175	31	12,457	-49.3		281	14.0
150	31	13,466	-49.6		275	11.9
125	31	14,658	-50.1		276	9.7
100	31	16,115	-50.4		291	7.0
80	31	17,572	-50.1		295	3.7
70	31	18,449	-50.1		331	2.9
60	31	19,452	-50.0		356	1.9
50	30	20,644	-49.6		51	2.7
40	30	22,105	-49.4		60	4.5
30	29	23,993	-48.9		71	8.4
25	28	25,192	-48.3		76	10.7
20	28	26,664	-47.3		79	13.2
15	24	28,594	-44.5		77	16.5
10	7	31,401	-40.5			
7						
5						

Standard pressure surface (mb.)	ANNETTE, ALASKA (1014 MB.)					
	Number of observations	Dynamic height	Temperature	Relative humidity	Wind	
					Direction	Speed
SURFACE	31	37	6.2	82	55	1.2
1,000	31	147	6.3	79	36	2.1
950	31	562	4.1	75	71	.6
900	31	1,004	1.3	73	212	1.7
850	31	1,462	- 1.8	71	192	4.5
800	31	1,943	- 4.6	66	190	4.9
750	31	2,446	- 7.5	58	197	5.1
700	31	2,983	-10.6	54	203	5.2
650	31	3,544	-14.4	49	214	5.2
600	31	4,152	-18.0	45	228	4.7
550	31	4,792	-22.2	42	246	6.0
500	31	5,493	-26.5	39	260	5.8
450	31	6,237	-32.1		284	6.4
400	31	7,068	-38.3		266	2.7
350	31	7,974	-44.6		290	9.3
300	31	8,993	-49.7		293	11.7
250	31	10,176	-52.8		301	17.5
200	31	11,621	-51.0		292	16.3
175	30	12,485	-50.5		296	14.8
150	30	13,490	-50.7		289	13.6
125	30	14,674	-51.8		285	10.3
100	30	16,119	-52.0		279	7.8
80	30	17,565	-51.7		267	5.1
70	29	18,432	-51.5		258	3.5
60	29	19,428	-51.5		272	1.6
50	29	20,612	-51.4		139	1.9
40	27	22,067	-51.2		90	3.1
30	27	23,937	-50.9		89	4.9
25	27	25,125	-50.1		80	6.8
20	25	26,585	-48.9		83	12.2
15	24	28,478	-46.6		77	15.9
10	18	31,238	-41.9		81	20.8
7	16	33,694	-36.8		78	23.1
5	15	36,036	-32.5			

Standard pressure surface (mb.)	ATHENS, GA. (991 MB.)					
	Number of observations	Dynamic height	Temperature	Relative humidity	Wind	
					Direction	Speed
SURFACE	30	246	17.6	87	331	3.3
1,000	30	167				
950	30	610	20.8	64	324	6.4
900	30	1,077	18.6	58	305	6.0
850	30	1,566	15.3	60	289	5.6
800	30	2,078	11.8	55	282	5.6
750	30	2,613	8.2	47	287	5.4
700	30	3,181	4.6	40	299	6.4
650	30	3,773	.6	40	301	6.8
600	30	4,419	- 3.8	38	295	8.5
550	30	5,092	- 8.0	35	296	9.9
500	30	5,836	-12.7		292	12.2
450	30	6,629	-16.8		295	11.9
400	30	7,506	-24.3		289	12.8
350	30	8,463	-31.6		291	15.2
300	30	9,536	-40.0		288	17.1
250	30	10,755	-49.5		290	18.1
200	30	12,183	-59.2		296	20.2
175	30	13,014	-62.6		294	21.6
150	30	13,965	-62.3		292	24.3
125	30	15,092	-63.2		295	24.5
100	30	16,458	-65.2		297	17.7
80	30	17,812	-66.1		313	10.7
70	30	18,632	-64.8		344	6.2
60	30	19,572	-62.1		21	6.2
50	30	20,708	-58.9		53	5.6
40	29	22,120	-55.4		70	5.4
30	27	23,978	-47.8		64	4.9
25	26	25,168	-49.6		80	4.3
20	23	26,640	-46.8		87	2.7
15	19	28,564	-43.8		263	4.9
10						
7						
5						

Standard pressure surface (mb.)	BARROW, ALASKA (1017 MB.)					
	Number of observations	Dynamic height	Temperature	Relative humidity	Wind	
					Direction	Speed
SURFACE	29	8	- 9.0	86	78	5.1
1,000	29	140	- 9.2	86	89	5.6
950	29	536	- 9.0	80	102	4.5
900	29	957	- 8.2	71	126	2.1
850	29	1,401	- 9.1	64	202	2.1
800	29	1,868	-11.1	59	233	3.9
750	29	2,356	-13.2	55	241	5.4
700	29	2,885	-15.8	51	252	7.0
650	29	3,433	-18.7	49	256	8.7
600	29	4,034	-22.1	49	258	11.1
550	29	4,661	-26.0	48	261	15.3
500	29	5,353	-30.6	49	256	17.7
450	29	6,084	-35.9	50	256	19.8
400	29	6,905	-41.4		257	22.5
350	29	7,800	-47.2		256	24.1
300	29	8,809	-51.7		256	26.0
250	29	9,991	-50.8		257	22.3
200	29	11,460	-46.6		257	19.6
175	29	12,347	-46.2		262	17.5
150	29	13,371	-46.0		267	16.5
125	29	14,583	-46.3		268	12.8
100	29	16,066	-46.3		275	10.5
80	29	17,550	-46.2		281	7.6
70	29	18,434	-46.2		292	6.6
60	29	19,460	-46.1		298	3.1
50	29	20,672	-45.8		341	1.9
40	28	22,164	-45.6		59	2.9
30	27	24,086	-45.2		70	5.6
25	27	25,304	-44.6		74	8.2
20	27	26,801	-43.3		70	10.7
15	23	28,777	-40.5		77	12.4
10	22	31,571	-37.0		76	13.6
7	18	34,053	-34.2		76	16.9
5	11	36,472	-29.9			

Standard pressure surface (mb.)	BARTER IS., ALASKA (1017 MB.)					
	Number of observations	Dynamic height	Temperature	Relative humidity	Wind	
					Direction	Speed
SURFACE	31	15	- 9.8	83	84	3.3
1,000	31	143	- 9.5	82	76	2.9
950	31	542	- 7.7	80	100	2.7
900	31	962	- 6.8	73	255	1.4
850	31	1,408	- 7.5	64	269	6.4
800	31	1,878	- 9.6	60	271	7.6
750	31	2,372	-12.2	60	265	11.1
700	31	2,899	-14.8	56	264	13.0
650	31	3,452	-18.0	53	266	13.6
600	31	4,051	-21.5	51	272	15.3
550	31	4,682	-25.6	50	271	18.5
500	31	5,372	-30.2	46	271	20.4
450	31	6,104	-35.4	46	273	24.1
400	31	6,925	-40.9		274	28.2
350	31	7,821	-46.9		273	30.3
300	31	8,829	-52.4		274	33.6
250	31	10,002	-52.8		273	27.0
200	31	11,457	-48.6		278	21.4
175	30	12,336	-47.9		285	21.8
150	30	13,354	-47.7		290	18.7
125	30	14,557	-47.6		293	16.3
100	30	16,033	-47.0		295	9.5
80	28	17,516	-46.9		300	7.0
70	28	18,402	-46.7		327	4.9
60	28	19,424	-46.6		5	4.3
50	28	20,634	-46.6		39	4.9
40	27	22,121	-46.4		53	6.6
30	27	24,034	-46.1		60	8.7
25	27	25,249	-45.1		64	10.5
20	26	26,741	-43.7		72	11.9
15	24	28,696	-41.1		80	11.1
10						
7						
5						

Standard pressure surface (mb.)	BETHEL, ALASKA (1008 MB.)					
	Number of observations	Dynamic height	Temperature	Relative humidity	Wind	
					Direction	Speed
SURFACE	31	39	0.3	90	284	1.9
1,000	31	106			247	3.1
950	31	514	.1	72	176	5.4
900	31	950	- 1.9	69	177	6.4
850	31	1,403	- 3.6	63	191	6.2
800	31	1,880	- 5.8	61	199	7.4
750	31	2,378	- 8.3	58	221	8.2
700	31	2,918	-10.9	58	226	5.6
650	31	3,479	-14.3	59	233	8.2
600	31	4,087	-17.6	54	238	10.3
550	31	4,729	-21.3	52	240	11.9
500	31	5,432	-25.8	49	242	13.6
450	31	6,181	-30.9	41	246	13.4
400	31	7,015	-37.0	43	254	14.4
350	31	7,927	-43.1		265	16.1
300	31	8,951	-49.4		276	18.1
250	31	10,134	-52.9		282	19.8
200	31	11,582	-50.0		282	16.9
175	31	12,457	-49.3		268	14.6
150	31	13,467	-49.4		280	11.7
125	31	14,661	-49.8		271	10.1
100	31	16,121	-49.9		273	6.6
80	31	17,578	-50.1		305	3.7
70	31	18,446	-50.0		329	2.5
60	31	19,458	-50.0		14	1.7
50	30	20,648	-50.1		19	3.3
40	30	22,106	-50.1		60	5.2
30	29	23,985	-49.6		70	7.4
25	29	25,181	-48.9		66	8.4
20	26	26,660	-47.7		79	11.5
15	12	28,603	-45.4			
10						
7						
5						

Standard pressure surface (mb.)	BISMARCK, N. DAK. (952 MB.)					
	Number of observations	Dynamic height	Temperature	Relative humidity	Wind	
					Direction	Speed
SURFACE	31	505	8.8	86	48	4.1
1,000	31	97				
950	31	526			55	4.1
900	31	973	8.7	68	65	6.0
850	31	1,444	6.8	64	53	3.3
800	31	1,941	4.8	65	16	1.7
750	31	2,466	2.1	63	293	5.6
700	31	3,020	- .2	62	274	11.9
650	31	3,605	- 3.4	62	269	17.9
600	31	4,239	- 7.3	55	270	20.4
550	31	4,905	-11.8	50	265	24.1
500	31	5,635	-16.9	44	260	27.4
450	31	6,408	-22.7	41	257	30.1
400	31	7,271	-29.1	40	255	32.6
350	31	8,212	-36.3		255	35.8
300	31	9,263	-44.5		248	42.2
250	31	10,461	-53.2		244	44.9
200	31	11,877	-57.8		244	53.8
175	31	12,723	-55.8		249	42.2
150	31	13,709	-54.4		250	34.0
125	31	14,874	-55.1		252	28.6
100	31	16,298	-56.1		248	19.2
80	31	17,712	-57.2		245	9.7
70	31	18,562	-56.8		238	4.9
60	31	19,535	-55.8		197	2.1
50	31	20,697	-54.9		151	1.4
40	31	22,125	-54.1		73	6.2
30	30	23,970	-52.8		73	8.0
25	29	25,143	-51.6		71	8.4
20	28	26,596	-50.2		78	8.0
15	20	28,478	-47.5		68	7.6
10						
7						
5						

Standard pressure surface (mb.)	BOISE, IDAHO (913 MB.)					
	Number of observations	Dynamic height	Temperature	Relative humidity	Wind	
					Direction	Speed
SURFACE	31	868	8.0	79	259	2.3
1,000	31	108				
950	31	537				
900	31	988	8.9	72	269	4.1
850	31	1,461	8.2	57	306	7.0
800	31	1,959	5.0	59	311	6.6
750	31	2,482	1.5	63	285	5.8
700	31	3,035	- 2.2	61	261	9.5
650	31	3,615	- 6.1	60	249	12.6
600	31	4,243	-10.0	58	241	13.8
550	31	4,904	-14.2	52	239	18.5
500	31	5,626	-19.3	51	240	21.0
450	31	6,395	-25.0	48	239	22.9
400	31	7,246	-31.7	45	238	23.7
350	30	8,176	-39.1		238	25.6
300	30	9,215	-47.5		236	30.1
250	30	10,399	-54.3		243	34.4
200	30	11,821	-56.1		247	32.3
175	30	12,673	-54.8		244	26.2
150	28	13,657	-54.0		242	22.2
125	28	14,826	-54.5		246	20.2
100	28	16,252	-55.3		230	16.1
80	27	17,676	-56.3		227	9.5
70	27	18,529	-56.6		219	6.4
60	27	19,502	-56.2		192	2.7
50	25	20,666	-55.3		166	2.9
40	24	22,093	-54.2		106	3.1
30	23	23,947	-52.5		86	4.1
25	21	25,130	-51.1		81	2.5
20	16	26,594	-48.1		32	2.7
15	7	28,579	-43.8			
10						
7						
5						

Standard pressure surface (mb.)	BROWNSVILLE, TEXAS (1013 MB.)					
	Number of observations	Dynamic height	Temperature	Relative humidity	Wind	
					Direction	Speed
SURFACE	30	7	22.6	90	137	8.2
1,000	30	120	22.7	85	143	15.0
950	30	562	19.8	82	160	24.3
900	30	1,031	18.0	65	169	25.1
850	29	1,521	16.3	50	171	19.4
800	29	2,035	15.1	35	164	12.6
750	29	2,575	13.3		151	8.9
700	29	3,157	9.8		141	4.9
650	29	3,760	5.8	28	85	.6
600	29	4,417	1.2		324	4.1
550	29	5,102	- 3.7		315	6.4
500	29	5,855	- 9.2		311	10.7
450	29	6,655	-14.7		300	12.6
400	29	7,543	-20.9		296	16.7
350	29	8,515	-28.2		291	20.0
300	29	9,602	-36.7		290	25.8
250	28	10,840	-45.9		287	34.4
200	28	12,291	-55.8		287	38.9
175	28	13,132	-60.3		285	37.7
150	28	14,083	-64.4		281	39.1
125	28	15,187	-68.3		273	30.3
100	28	16,515	-71.3		268	18.8
80	27	17,833	-70.8		205	3.9
70	25	18,640	-68.7		116	8.5
60	25	19,568	-64.6		111	15.5
50	25	20,695	-59.5		98	13.0
40	25	22,108	-54.3		82	15.3
30	24	23,970	-50.0		85	18.5
25	21	25,167	-47.7		92	21.4
20	20	26,649	-45.0		89	17.3
15	18	28,586	-41.4		87	24.9
10	14	31,389	-35.9		93	25.3
7	8	33,877	-32.2			
5						

Standard pressure surface (mb.)	BUFFALO, N. Y. (992 MB.)					
	Number of observations	Dynamic height	Temperature	Relative humidity	Wind	
					Direction	Speed
SURFACE	31	218	10.6	78	198	4.3
1,000	31	153				
950	31	584	13.7	62	239	6.6
900	31	1,039	11.5	60	278	9.9
850	31	1,515	8.5	62	282	11.5
800	31	2,014	5.8	57	277	13.6
750	31	2,537	3.2	49	278	16.5
700	31	3,097	.8	43	289	20.0
650	31	3,685	- 2.3	37	286	22.2
600	31	4,320	- 6.1	34	285	24.9
550	31	4,989	-10.7	33	285	27.8
500	31	5,722	-15.3	30	282	29.9
450	31	6,502	-20.7		289	33.4
400	31	7,372	-26.9		291	37.7
350	31	8,321	-34.0		292	40.6
300	31	9,384	-42.2		292	44.7
250	31	10,594	-51.2		293	47.6
200	31	12,018	-59.0		296	47.2
175	31	12,853	-60.7		295	42.9
150	31	13,814	-59.7		296	32.3
125	31	14,957	-59.1		293	26.2
100	31	16,356	-59.6		303	22.3
80	31	17,749	-59.9		307	15.5
70	31	18,583	-59.0		308	10.5
60	31	19,553	-58.1		326	6.8
50	30	20,710	-56.5		344	5.4
40	30	22,132	-54.8		18	3.3
30	28	23,987	-52.4		359	2.9
25	27	25,164	-50.9		357	2.1
20	26	26,622	-49.3		322	6.0
15	22	28,534	-45.9		298	10.3
10	10	31,334	-40.6			
7						
5						

Standard pressure surface (mb.)	BURRWOOD, LA. (1018 MB.)					
	Number of observations	Dynamic height	Temperature	Relative humidity	Wind	
					Direction	Speed
SURFACE	31	3	23.0	84	147	1.7
1,000	31	158	22.9	73	118	1.7
950	31	603	20.6	58	140	4.9
900	31	1,069	17.8	53	142	8.0
850	31	1,557	15.2	47	136	10.1
800	31	2,068	12.2	43	145	9.3
750	31	2,605	9.4	32	135	8.7
700	31	3,174	5.9	32	147	6.6
650	31	3,776	2.4	28	144	4.9
600	31	4,420	- 1.6	31	142	1.0
550	31	5,099	- 6.1		309	1.4
500	31	5,847	-11.2		301	4.1
450	31	6,645	-16.5		298	7.8
400	31	7,524	-22.7		302	11.3
350	31	8,489	-29.7		290	15.3
300	31	9,569	-37.9		292	20.2
250	31	10,800	-47.0		293	27.4
200	31	12,246	-56.2		292	34.0
175	31	13,087	-59.9		287	33.6
150	31	14,045	-61.9		285	33.2
125	31	15,166	-65.0		280	25.1
100	31	16,517	-68.1		285	17.5
80	31	17,853	-68.8		333	7.6
70	31	18,660	-66.9		20	6.0
60	31	19,595	-63.2		73	7.2
50	31	20,728	-58.7		85	9.9
40	30	22,141	-54.5		82	12.8
30	29	24,002	-49.7		77	11.9
25	29	25,202	-47.2		85	13.2
20	28	26,692	-44.5		89	15.5
15	27	28,630	-40.8		95	14.4
10	27	31,421	-35.5		84	6.4
7	19	33,903	-31.9		89	17.3
5						

Standard pressure surface (mb.)	CANTON IS., PACIFIC AREA (1010 MB.)					
	Number of observations	Dynamic height	Temperature	Relative humidity	Wind	
					Direction	Speed
SURFACE	31	4	26.9	83	72	9.1
1,000	31	89	26.3	83	74	11.3
950	31	532	23.4	83	89	19.0
900	31	1,012	20.4	81	90	23.7
850	31	1,505	17.7	76	88	22.0
800	31	2,022	15.5	65	88	19.4
750	31	2,571	13.3	51	89	17.7
700	31	3,146	10.2	46	88	15.2
650	31	3,758	6.7	48	95	11.9
600	31	4,413	2.9	44	94	6.4
550	31	5,106	- 1.3	41	54	2.1
500	31	5,867	- 5.6	33	314	2.1
450	31	6,682	-10.4		238	2.9
400	31	7,583	-16.5		222	10.5
350	31	8,574	-23.5		223	16.5
300	31	9,683	-31.9		215	22.9
250	31	10,944	-41.9		232	23.9
200	31	12,418	-53.7		243	29.1
175	30	13,262	-60.3		247	32.4
150	30	14,207	-67.3		255	32.3
125	30	15,284	-75.0		258	32.4
100	28	16,556	-80.9		265	29.5
80	24	17,826	-77.7		265	28.2
70	24	18,600	-72.0		265	32.4
60	24	19,518	-67.7		268	34.8
50	24	20,628	-63.6		269	32.3
40	24	22,011	-59.8		284	13.4
30	24	23,821	-56.5		84	26.0
25	23	24,989	-52.3		87	43.7
20	23	26,444	-49.6		90	50.5
15	23	28,343	-46.1		91	56.5
10	22	31,067	-41.8		89	63.0
7	18	33,517	-36.5		91	60.6
5	12	35,866	-32.4		104	28.4

See reference note at end of table

RAWINSONDE DATA

Average monthly values

CAPE HATTERAS, N. C.
(1017 MB.)

Standard pressure surface (mb)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind	
					Direction	Speed
SURFACE	31	4	18.3	88	320	1.6
1,000	31	146	19.1	79	307	2.3
950	31	586	18.2	63	309	4.7
900	31	1,049	15.9	61	319	6.6
850	31	1,533	13.2	61	317	8.5
800	31	2,041	10.0	63	315	10.3
750	31	2,571	6.7	61	323	11.9
700	31	3,138	3.4	54	323	12.2
650	31	3,733	- .2	48	324	13.4
600	31	4,372	- 4.0	40	323	15.5
550	31	5,047	- 7.8	38	320	16.3
500	31	5,789	-12.2		318	17.5
450	31	6,579	-17.5		317	17.3
400	31	7,459	-23.7		317	18.7
350	31	8,421	-30.9		307	19.4
300	31	9,496	-39.3		304	20.4
250	31	10,718	-49.3		302	24.1
200	31	12,148	-59.0		305	23.3
175	31	12,977	-62.9		299	25.5
150	30	13,923	-62.2		306	26.0
125	29	15,053	-61.4		304	23.7
100	29	16,432	-62.8		308	16.7
80	29	17,807	-62.6		318	11.3
70	29	18,635	-61.8		335	9.1
60	29	19,591	-59.4		13	7.6
50	28	20,744	-56.0		43	5.8
40	28	22,174	-52.9		54	4.1
30	26	24,051	-49.4		109	3.1
25	26	25,251	-47.5		110	1.9
20	24	26,738	-45.0		100	.6
15	23	28,672	-41.8		129	1.6
10	22	31,451	-36.3		228	3.9
7	20	33,950	-31.6		244	1.6
5	6	36,341	-27.4			

CARIBOU, ME.
(994 MB.)

Standard pressure surface (mb)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind	
					Direction	Speed
SURFACE	31	191	6.6	77	291	2.1
1,000	31	140				
950	31	559	5.8	68	254	5.1
900	31	1,002	4.1	67	282	8.7
850	31	1,465	2.4	67	297	10.5
800	31	1,954	.4	63	298	13.4
750	31	2,469	- 1.8	56	298	15.9
700	31	3,017	- 4.4	48	296	17.3
650	30	3,603	- 7.0	48	295	21.0
600	30	4,228	- 9.8	47	295	23.7
550	30	4,889	-13.7	43	293	24.7
500	30	5,614	-18.4	41	292	27.0
450	30	6,387	-23.7	40	295	30.1
400	30	7,244	-29.8	38	301	30.7
350	30	8,182	-36.6		302	35.2
300	30	9,233	-44.2		299	39.2
250	30	10,437	-50.7		304	46.2
200	30	11,877	-54.8		306	41.4
175	30	12,729	-55.9		304	35.6
150	30	13,711	-55.2		296	26.4
125	30	14,876	-55.1		306	25.5
100	30	16,303	-55.3		306	16.9
80	29	17,726	-55.6		316	10.7
70	29	18,581	-55.0		313	7.8
60	29	19,567	-54.3		330	7.0
50	29	20,739	-53.1		19	4.3
40	29	22,183	-52.1		55	4.1
30	27	24,055	-51.0		60	4.3
25	26	25,247	-49.9		52	3.1
20	24	26,719	-47.3		68	5.1
15	22	28,634	-43.5		59	1.7
10	18	31,410	-36.6		322	1.0
7	14	33,929	-30.1			

CHARLESTON, S. C.
(1017 MB.)

Standard pressure surface (mb)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind	
					Direction	Speed
SURFACE	31	13	19.3	88	351	1.6
1,000	31	156	21.5	77	317	1.9
950	31	596	21.1	61	322	2.3
900	31	1,069	18.6	59	331	4.7
850	31	1,557	15.1	62	350	6.0
800	31	2,068	11.5	60	350	7.8
750	31	2,600	8.0	51	1	7.2
700	31	3,171	4.7	40	346	8.0
650	31	3,766	.9	39	340	9.7
600	31	4,411	- 3.2	40	329	10.7
550	31	5,086	- 7.3	34	322	12.0
500	31	5,831	-11.9	30	314	12.0
450	31	6,626	-17.4	29	314	11.1
400	31	7,503	-23.5		306	11.3
350	31	8,466	-30.6		300	12.4
300	31	9,543	-39.2		297	14.2
250	31	10,767	-48.8		298	17.9
200	31	12,200	-58.6		304	18.3
175	31	13,032	-62.1		299	22.0
150	31	13,983	-62.4		294	27.8
125	31	15,107	-63.0		298	24.9
100	31	16,476	-64.4		310	18.5
80	31	17,836	-65.3		318	12.4
70	31	18,653	-63.8		351	7.6
60	31	19,604	-60.7		26	5.2
50	31	20,747	-57.6		51	6.0
40	31	22,169	-54.1		76	7.2
30	31	24,034	-49.9		88	6.8
25	31	25,232	-48.1		80	7.0
20	29	26,715	-45.4		97	6.2
15	26	28,643	-41.1		88	4.5

COLD BAY, ALASKA
(1012 MB.)

Standard pressure surface (mb)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind	
					Direction	Speed
SURFACE	31	30	2.0	89	201	4.5
1,000	31	119			240	4.9
950	31	537	.0	82	241	6.6
900	31	964	- 1.7	78	267	6.6
850	31	1,418	- 2.7	71	258	6.8
800	31	1,898	- 3.9	62	240	9.5
750	31	2,406	- 5.9	60	251	11.7
700	31	2,944	- 8.5	57	247	12.8
650	31	3,514	-11.5	51	252	12.8
600	31	4,125	-15.1	46	255	14.0
550	31	4,774	-19.3	43	256	15.3
500	31	5,480	-24.0		252	16.9
450	31	6,233	-29.1		257	18.1
400	31	7,075	-34.5		271	18.8
350	31	7,996	-41.0		272	23.3
300	31	9,029	-47.7		277	28.8
250	31	10,218	-52.6		280	26.6
200	30	11,655	-52.6		275	26.0
175	30	12,520	-51.7		274	20.8
150	29	13,520	-51.8		274	18.5
125	29	14,702	-52.0		273	13.8
100	28	16,148	-52.4		270	10.3
80	26	17,591	-52.1		263	5.4
70	26	18,464	-52.1		272	3.9
60	25	19,450	-52.0		298	1.7
50	24	20,627	-51.6		34	.8
40	24	22,075	-51.3		70	3.5
30	23	23,945	-50.7		86	6.2
25	22	25,127	-50.3		82	6.8
20	19	26,593	-49.3		96	8.4
15	12	28,541	-46.6		114	9.3
10	8	31,247	-42.6			
7	5	33,638	-40.1			
5	5	35,947	-37.3			

COLUMBIA, MO.
(986 MB.)

Standard pressure surface (mb)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind	
					Direction	Speed
SURFACE	31	238	17.0	81	162	4.5
1,000	31	116				
950	31	555	19.4	65	217	13.6
900	31	1,022	17.7	59	242	20.0
850	31	1,509	15.4	54	249	18.1
800	31	2,021	12.3	54	250	18.1
750	31	2,555	8.8	50	244	17.7
700	31	3,126	4.8	50	245	18.5
650	31	3,724	.6	44	245	18.1
600	31	4,364	- 3.7	39	245	20.4
550	31	5,039	- 8.3	36	246	19.8
500	31	5,779	-13.4	39	252	19.4
450	31	6,565	-19.2	36	254	22.5
400	31	7,439	-25.6	36	260	24.3
350	31	8,393	-32.6		263	24.7
300	31	9,462	-40.8		260	28.8
250	31	10,679	-50.0		258	32.4
200	31	12,106	-59.0		256	37.5
175	31	12,936	-62.1		259	36.7
150	31	13,892	-60.3		267	34.0
125	31	15,030	-60.3		267	27.8
100	31	16,415	-62.5		268	19.2
80	31	17,790	-62.9		272	10.9
70	30	18,617	-62.2		278	7.0
60	30	19,572	-60.2		290	2.7
50	30	20,715	-58.2		48	1.9
40	28	22,129	-55.8		72	4.1
30	27	23,977	-52.2		64	4.1
25	25	25,158	-50.6		78	1.9
20	22	26,624	-47.6		191	1.0
15	11	28,575	-43.7			

DAYTON, OHIO
(983 MB.)

Standard pressure surface (mb)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind	
					Direction	Speed
SURFACE	31	297	15.1	82	141	1.4
1,000	31	150				
950	31	590	17.8	65	238	7.6
900	31	1,051	15.8	61	258	13.8
850	31	1,534	13.0	59	262	16.9
800	31	2,042	10.1	57	264	17.9
750	31	2,571	6.6	54	266	18.5
700	31	3,140	3.1	45	270	18.1
650	31	3,732	- .9	45	272	19.0
600	31	4,371	- 4.8	39	272	20.6
550	31	5,044	- 8.7		269	20.2
500	31	5,783	-13.6		269	19.6
450	31	6,567	-19.2		270	24.3
400	31	7,443	-25.5		268	21.8
350	31	8,399	-32.7		271	25.1
300	31	9,466	-41.0		274	27.8
250	31	10,682	-50.3		282	30.3
200	31	12,109	-59.3		290	32.8
175	31	12,938	-62.2		290	30.9
150	31	13,896	-60.1		283	28.4
125	31	15,035	-60.4		282	23.3
100	31	16,422	-61.7		289	17.5
80	31	17,801	-62.2		301	10.9
70	31	18,630	-61.6		318	8.4
60	31	19,586	-59.7		343	5.2
50	31	20,731	-57.6		16	4.5
40	31	22,150	-54.8		36	6.2
30	29	24,001	-52.0		57	4.5
25	29	25,187	-50.2		59	3.5
20	24	26,640	-48.6		335	2.9
15	20	28,538	-46.0		308	3.5
10	9	31,244	-42.1			

DENVER, COLO.
(835 MB.)

Standard pressure surface (mb)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind	
					Direction	Speed
SURFACE	31	1,611	8.0	63	217	2.1
1,000	31	90				
950	31	524				
900	31	983				
850	31	1,459				
800	31	1,965	11.9	46	258	5.2
750	31	2,502	8.9	40	263	5.8
700	31	3,070	4.8	41	256	8.9
650	31	3,665	.3	41	255	11.1
600	31	4,305	- 4.7	41	252	15.0
550	31	4,978	-10.0	41	245	19.6
500	31	5,711	-15.8	40	240	23.9
450	31	6,496	-21.3	35	236	28.0
400	31	7,355	-27.7	35	237	30.3
350	31	8,301	-34.9		234	31.9
300	31	9,358	-43.2		231	34.4
250	31	10,561	-52.1		236	37.7
200	31	11,983	-58.3		239	40.2
175	31	12,821	-58.5		239	37.9
150	31	13,795	-56.7		245	34.2
125	31	14,949	-57.3		245	29.0
100	31	16,355	-59.0		244	19.0
80	31	17,750	-60.6		247	11.1
70	31	18,591	-59.6		248	5.8
60	31	19,552	-57.9		247	2.3
50	31	20,706	-55.8		129	1.7
40	31	22,132	-54.5		87	4.3
30	31	23,985	-52.4		68	3.9
25	31	25,170	-50.5		57	4.1
20	30	26,633	-48.4		70	2.5
15	14	28,551	-44.8			

DODGE CITY, KANS.
(920 MB.)

Standard pressure surface (mb)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind	
					Direction	Speed
SURFACE	30	792	15.3	78	188	5.6
1,000	30	79				
950	30	520				
900	30	984	17.8	61	200	11.7
850	30	1,474	18.7	38	225	20.0
800	30	1,991	16.1	28	235	17.5
750	30	2,532	12.1		232	15.7
700	30	3,109	7.6	29	229	16.1
650	30	3,708	2.5	32	230	16.7
600	30	4,355	- 2.9	36	233	21.4
550	30	5,027	- 8.2	40	231	22.3
500	30	5,770	-13.7	37	234	21.8
450	30	6,554	-19.7		235	23.5
400	30	7,427	-26.3		240	26.2
350	30	8,378	-33.5		243	29.9
300	30	9,442	-41.7		244	32.6
250	30	10,653	-50.7		242	37.5
200	30	12,077	-59.4		242	41.0
175	30	12,908	-60.8		244	41.2
150	30	13,870	-59.4		251	37.3
125	29	15,011	-60.2		256	30.3
100	28	16,397	-62.0		250	23.7
80	27	17,772	-63.3		247	13.4
70	27	18,595	-62.1		237	8.5
60	27	19,552	-60.1		237	4.7
50	26	20,692	-58.1		33	1.0
40	24	22,102	-55.8		54	1.0
30	23	23,951	-52.4		89	1.0
25	23	25,135	-50.6		160	.6
20	20	26,594	-48.7		226	5.1
15	12	28,546	-43.8		258	13.0

EL PASO, TEXAS
(880 MB.)

Standard pressure surface (mb)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind	
					Direction	Speed
SURFACE	31	1,193	16.9	26	264	3.7
1,000	31	86				
950	31	533				
900	31	1,006				
850	31	1,494	19.0	19	267	8.0
800	31	2,011	15.6	19	266	11.7
750	31	2,549	11.4	21	254	15.0
700	31	3,127	7.1	21	248	17.1
650	31	3,727	2.7		239	19.2
600	31	4,375	- 2.2		230	21.8
550	31	5,048	- 7.3		228	24.9
500	31	5,796	-12.7		231	28.4
450	31	6,584	-18.8		235	30.5
400	31	7,461	-25.5		241	33.0
350	31	8,415	-32.9		246	38.7
300	31	9,483	-40.8		251	44.9
250	31	10,699	-50.1		254	51.7
200	31	12,127	-58.6		259	59.1
175	31	12,961	-61.1		258	60.0
150	31	13,916	-61.8		258	51.9
125	31	15,041	-63.8		255	38.5
100	31	16,399	-67.0		246	25.1
80	31	17,743	-67.4		240	11.1
70	31	18,560	-65.0		223	7.2
60	31	19,500	-61.8		182	3.7
50	31	20,635	-59.3		95	5.6
40	31	22,046	-55.9		86	7.0
30	30	23,897	-52.4		71	7.6
25	30	25,083	-50.2		84	7.0
20	29	26,549	-47.2		104	4.9
15	28	28,466	-44.4		153	1.4
10	6	31,151	-39.4			

ELY, NEV.
(806 MB.)

Standard pressure surface (mb)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind	
					Direction	Speed
SURFACE	31	1,908	3.6	67	202	4.7
1,000	31	117				
950	31	548				
900	31	1,000				
850	31	1,473				
800	31	1,971	6.1	58	203	5.8
750	31	2,501	5.0	50	203	5.1
700	31	3,060	1.1	49	232	9.9
650	31	3,648	- 3.4	52	237	12.6
600	31	4,279	- 8.0	52	242	15.2
550	31	4,942	-12.5	47	245	16.3
500	31	5,670	-17.5	41	244	18.8
450	31	6,443	-23.0	37	241	20.6
400	31	7,303	-29.7	37	244	22.7
350	31	8,241	-37.3		237	23.3
300	31	9,287	-45.4		243	24.1
250	31	10,484	-52.3		251	29.0
200	31	11,912	-56.6		253	33.6
175	30	12,760	-56.3		246	33.8
150	30	13,740	-55.9		248	29.7
125	29	14,898	-56.1		245	27.2
100	29	16,314	-57.4		236	19.2
80	29	17,721	-58.1		225	9.7
70	28	18,569	-58.1		183	2.7
60	28	19,531	-57.6		175	2.7
50	28	20,688	-55.7		146	2.1
40	28	22,116	-54.0		98	2.3
30	28	23,971	-52.2		89	1.9
25	28	25,157	-49.9		72	3.3
20	24	26,615	-47.4		30	1.4
15	16	28,565	-43.0			

FAIRBANKS, ALASKA
(997 MB.)

Standard pressure surface (mb)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind	
					Direction	Speed
SURFACE	31	135	3.8	74	331	2.7
1,000	31	111			324	2.1
950	31	527	3.8	54	278	2.3
900	31	966	.6	57	234	4.5
850	31	1,422	- 2.5	61	231	8.2
800	31	1,901	- 5.6	66	231	10.1
750	31	2,399	- 8.7	71	225	10.1
700	31	2,936	-11.9	72	230	9.7
650	31	3,495	-15.2	63	236	10.5
600	31	4,101	-18.8	56	231	11.3
550	31	4,742	-23.2	53	238	11.9
500	31	5,436	-27.5	51	243	12.2
450	31	6,183	-32.8	49	248	12.8
400	31	7,006	-38.8		258	14.0
350	31	7,910	-45.2		259	17.9
300	31	8,924	-51.8		262	20.0
250	31	10,096	-54.2		263	18.5
200	31	11,543	-49.5		266	14.0
175	31	12,419	-48.5		269	11.1
150	31	13,432	-49.1		271	11.3
125	31	14,629	-48.9		282	10.5
100	31	16,093	-48.8		293	8.2
80	31	17,560	-48.9		299	4.9
70	31	18,438	-48.7		323	2.7
60	31	19,451	-48.3		359	2.3
50	30	20,655	-48.2		45	2.7
40	30	22,125	-48.2		57	4.5
30	29	24,028	-47.5		67	7.6
25	28	25,236	-46.5		67	11.1
20	23	26,744	-45.0		69	14.0
15	19	28,711	-42.1		75	16.3
10	14	31,491	-37.0		78	20.8
7	12	33,989	-33.3			
5	6	36,384	-29.7			

FLINT, MICH.
(990 MB.)

Standard pressure surface (mb)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind	
					Direction	Speed
SURFACE	31	234	12.7	82	187	1.9
1,000	31	147				
950	31	583	14.4	63	241	5.2
900	31	1,036	12.7	57	254	9.1
850	31	1,514	10.2	57	259	12.2
800	31	2,017	7.6	55	265	14.0
750	31	2,549	5.2	48	272	16.7
700	30	3,111	2.0	48	276	21.0
650	30	3,701	- 1.5	51	272	22.0
600	30	4,339	- 5.6	47	278	24.3
550	30	5,010	-10.1	42	279	25.1
500	30	5,745	-14.9	38	281	26.6
450	30	6,526	-20.2	37	277	29.9
400	30	7,397	-26.5		276	32.3
350	30	8,347	-33.8		275	35.6
300	30	9,408	-42.1		276	38.9
250	30	10,618	-50.8		283	42.0
200	30	12,039	-59.4		286	47.6
175	30	12,871	-60.5		290	39.4
150	30	13,834	-59.1		286	32.4
125	30	14,978	-58.7		278	25.1
100	29	16,371	-59.4		288	19.2
80	29	17,766	-59.9		300	12.0
70	29	18,609	-59.3		311	11.7
60	29	19,571	-57.9		338	6.0
50	29	20,725	-56.3		23	4.9
40	28	22,156	-54.4		30	5.4
30	27	24,013	-52.1		48	4.7
25	27	25,200	-50.2		32	3.1
20	27	26,664	-48.6		36	1.9
15	24	28,560	-45.6		306	4.5
10	7	31,313	-40.5			

FORT WORTH, TEXAS
(994 MB.)

Standard pressure surface (mb)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind	
					Direction	Speed
SURFACE	31	180	19.4	82	173	7.2
1,000	31	123				
950	31	568	19.0	75	189	20.4
900	31	1,031	18.7	58	197	23.5
850	31	1,521	17.3	41	203	18.3
800	31	2,036	15.3	27	203	12.8
750	31	2,579	12.1	24	215	9.1
700	31	3,154	7.8	30	228	8.7
650	31	3,758	3.2	35	245	10.1
600	31	4,403	- 1.9	38	252	11.7
550	31	5,082	- 7.0	38	246	14.6
500	31	5,825	-12.4	36	244	16.7
450	31	6,616	-18.2		243	20.0
400	31	7,491	-24.6	35	253	21.8
350	31	8,450	-31.7		258	24.7
300	31	9,522	-39.9		260	29.5
250	31	10,743	-49.3		263	35.2
200	31	12,175	-58.4		263	43.9
175	31	13,009	-61.2		269	47.2
150	31	13,964	-61.7		264	41.2
125	31	15,090	-63.3		262	33.0
100	31	16,453	-65.8		262	21.8
80	31	17,804	-66.9		255	8.0
70	31	18,616	-65.7		195	4.7
60	31	19,555	-61.9		139	4.9
50	31	20,689	-59.3		99	4.7
40	31	22,099	-55.3		91	7.2
30	31	23,948	-51.8		79	6.4
25	31	25,136	-49.1		80	5.2
20	30	26,608	-46.3		98	2.3
15	23	28,517	-43.8		292	1.0

GLASGOW, MONT.
(932 MB.)

Standard pressure surface (mb)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind	
					Direction	Speed
SURFACE	31	696	7.5	79	69	4.9
1,000	31	108				
950	31	535				
900	31	984	8.0	70	88	6.6
850	31	1,454	6.1	66	72	2.9
800	31	1,949	3.6	65	292	1.2
750	31	2,468	.3	66	284	4.7
700	31	3,021	- 2.6	61	282	10.1
650	31	3,598	- 6.2	63	273	12.4
600	31	4,227	-10.0	60	267	16.5
550	31	4,885	-14.1	55	269	17.3
500	31	5,610	-18.9	46	259	25.6
450	31	6,372	-24.4	41	258	24.7
400	31	7,232	-30.9	41	253	28.4
350	31	8,165	-38.2		247	28.6
300	31	9,207	-46.6		248	37.7
250	31	10,393	-54.8		244	39.2
200	31	11,806	-56.9		246	41.0
175	31	12,657	-54.2		246	32.8
150	31	13,647	-53.3		246	27.2
125	31	14,819	-53.8		247	22.3
100	31	16,250	-54.1		247	18.8
80	30	17,678	-55.6		246	13.2
70	30	18,526	-55.5		246	10.1
60	30	19,510	-55.1		246	5.4
50	27	20,684	-54.3		204	1.4
40	27	22,116	-53.7		112	2.5
30	26	23,968	-52.6		84	5.1
25	25	25,151	-51.3		88	4.7
20	22	26,609	-49.3		71	2.9
15	14	28,539	-46.2		347	6.0
10	7	31,253	-40.3			

GRAND JUNCTION, COLO.
(850 MB.)

Standard pressure surface (mb)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind	
					Direction	Speed
SURFACE	31	1,474	10.9	40	134	4.1
1,000	31	88				
950	31	523				
900	31	986				
850	31	1,469			126	6.8
800	31	1,977	11.7	33	178	9.1
750	31	2,511	7.8	35	223	10.3
700	31	3,078	3.3	40	234	13.2
650	31	3,669	- 1.5	45	238	15.3
600	31	4,305	- 6.7	50	238	17.9
550	31	4,972	-11.9	50	233	22.0
500	31	5,700	-17.2	46	232	26.0
450	31	6,474	-22.8	39	237	29.1
400	31	7,335	-29.0	39	234	33.6
350	31	8,276	-36.3		235	36.5
300	31	9,326	-44.7		241	33.2
250	31	10,525	-52.5		257	37.5
200	31	11,947	-57.6		264	37.1
175	31	12,788	-58.0		259	36.5
150	31	13,764	-56.7		256	33.4
125	31	14,916	-58.1		252	28.8
100	31	16,318	-58.7		251	20.2
80	30	17,709	-61.4		246	10.7
70	29	18,552	-60.5		233	6.8
60	29	19,506	-58.6		211	1.7
50	29	20,656	-56.8		106	2.3
40	28	22,078	-55.0		103	3.5
30	28	23,924	-52.9		66	7.0
25	28	25,105	-51.1		49	4.5
20	28	26,563	-49.0		60	4.7
15	28	28,465	-45.7		292	1.9
10	25	31,192	-40.9		272	7.0
7	23	33,638	-37.1		259	11.7
5	20	35,959	-33.3		257	11.3

See reference note at end of table

RAWINSONDE DATA

Average monthly values

GREAT FALLS, MONT. (885 MB.)

Standard pressure surface (mb.)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind	
					Direction	Speed
SURFACE	31	1,123	6.3	78	250	1.7
1,000	31	106				
950	31	532				
900	31	986				
850	31	1,457	7.1	61	267	4.7
800	31	1,953	4.0	64	250	3.7
750	31	2,473	.6	67	251	4.3
700	31	3,026	- 2.8	67	259	8.5
650	31	3,602	- 6.5	64	255	10.9
600	31	4,230	-10.5	62	251	14.6
550	31	4,889	-14.9	53	242	18.1
500	31	5,610	-19.8	47	245	22.7
450	31	6,376	-25.4	45	243	26.0
400	31	7,228	-31.7	41	243	27.4
350	31	8,158	-39.2		241	29.1
300	31	9,196	-47.5		241	34.2
250	31	10,379	-55.3		241	36.5
200	31	11,795	-56.0		243	33.6
175	31	12,649	-53.8		243	28.0
150	31	13,642	-52.9		237	25.6
125	30	14,818	-53.1		240	24.3
100	30	16,254	-54.0		233	18.7
80	30	17,684	-54.6		242	12.8
70	29	18,541	-55.1		238	9.5
60	29	19,522	-54.8		229	7.0
50	29	20,689	-54.2		213	3.3
40	29	22,123	-53.1		85	2.1
30	29	23,979	-52.4		78	4.7
25	29	25,161	-51.3		81	6.6
20	29	26,618	-49.5		77	6.6
15	27	28,509	-46.7		81	5.6
10	24	31,240	-41.4		74	5.2
7	21	33,700	-36.0		88	6.6
5	15	36,031	-32.7			

GREEN BAY, WIS. (990 MB.)

Standard pressure surface (mb.)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind	
					Direction	Speed
SURFACE	31	210	11.6	81	172	0.8
1,000	31	121				
950	31	550	13.0	67	221	6.8
900	31	1,005	11.2	65	236	10.7
850	31	1,481	8.8	66	241	11.7
800	31	1,982	6.8	61	248	15.3
750	31	2,508	4.3	57	257	17.5
700	31	3,069	1.3	50	259	21.2
650	31	3,658	- 2.4	53	262	24.3
600	31	4,292	- 6.3	55	266	28.0
550	31	4,964	-10.8	52	268	29.3
500	31	5,694	-15.7	47	267	31.9
450	31	6,474	-21.0	41	265	33.8
400	31	7,341	-27.1	38	267	34.2
350	31	8,289	-34.2		266	34.4
300	31	9,350	-42.1		265	41.8
250	31	10,560	-51.2		266	47.4
200	31	11,982	-59.4		267	51.7
175	31	12,814	-60.5		271	46.8
150	31	13,783	-57.1		272	36.1
125	30	14,938	-57.9		275	28.0
100	30	16,342	-58.5		280	20.6
80	30	17,742	-59.2		288	15.7
70	30	18,585	-59.1		291	9.7
60	30	19,548	-57.9		324	6.0
50	30	20,702	-56.3		7	5.2
40	30	22,126	-54.6		54	5.4
30	29	23,978	-52.6		58	6.6
25	29	25,161	-50.9		55	7.0
20	24	26,624	-48.6		41	5.2
15	13	28,549	-45.2		294	8.0
10						
7						
5						

GREENSBORO, N. C. (987 MB.)

Standard pressure surface (mb.)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind	
					Direction	Speed
SURFACE	31	273	16.0	89	290	0.6
1,000	31	162				
950	31	604	18.9	67	308	3.9
900	31	1,066	16.8	63	309	6.4
850	31	1,552	14.3	65	303	10.5
800	31	2,061	10.9	63	299	10.7
750	31	2,595	7.1	61	303	11.9
700	31	3,161	3.8	49	305	12.8
650	31	3,758	- .1	49	307	15.0
600	31	4,396	- 4.1	45	306	16.5
550	31	5,072	- 8.3	38	298	15.5
500	31	5,811	-12.7	33	298	15.7
450	31	6,602	-18.0	29	295	15.2
400	31	7,478	-24.3		291	17.1
350	31	8,438	-31.7		286	19.2
300	31	9,509	-40.2		292	21.0
250	31	10,728	-50.0		296	23.3
200	31	12,154	-59.8		298	26.4
175	31	12,982	-62.9		292	28.4
150	31	13,929	-62.9		297	24.5
125	31	15,055	-62.5		297	23.1
100	31	16,429	-63.8		304	16.5
80	31	17,794	-64.3		308	9.9
70	31	18,620	-62.8		340	6.4
60	31	19,567	-60.6		15	7.6
50	31	20,709	-57.7		43	6.8
40	30	22,130	-54.6		52	4.9
30	30	23,985	-51.0		54	1.0
25	28	25,171	-49.2		59	2.3
20	25	26,639	-46.8		327	1.6
15	21	28,545	-43.0		260	8.7
10						
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5						

GUAM, MARIANA, IS. (999 MB.)

Standard pressure surface (mb.)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind	
					Direction	Speed
SURFACE	31	111	25.4	87	88	5.2
1,000	31	104			91	5.1
950	31	555	23.3	81	90	20.4
900	31	1,026	20.5	79	97	20.8
850	31	1,519	17.9	73	98	17.9
800	31	2,037	15.7	63	96	15.3
750	31	2,580	13.0	58	93	14.8
700	31	3,161	9.9	53	92	13.6
650	31	3,770	6.7	44	88	11.7
600	31	4,426	3.0	37	92	11.3
550	31	5,123	- .8		84	12.0
500	31	5,882	- 5.1		86	13.0
450	31	6,695	-10.2		80	11.5
400	31	7,600	-16.0		72	8.0
350	31	8,592	-22.5		29	3.9
300	31	9,706	-30.6		306	8.2
250	30	10,973	-40.8		278	11.5
200	30	12,451	-53.2		272	11.3
175	30	13,297	-60.1		274	12.0
150	29	14,242	-67.5		288	8.9
125	26	15,321	-74.8		353	4.1
100	24	16,599	-79.5		59	9.9
80	21	17,863	-79.4		72	14.8
70	20	18,626	-76.1		75	15.2
60	20	19,529	-70.5		83	14.6
50	20	20,631	-64.1		96	13.2
40	20	22,014	-58.4		87	16.5
30	20	23,843	-53.9		87	28.4
25	18	25,024	-51.2		85	35.4
20	16	26,488	-49.0		86	40.8
15	13	28,385	-45.9		84	49.9
10	6	31,097	-41.9			
7						
5						

HILO, HAWAII (1017 MB.)

Standard pressure surface (mb.)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind	
					Direction	Speed
SURFACE	31	11	20.0	91	244	4.9
1,000	31	157	20.7	85	217	3.3
950	31	595	18.0	86	117	6.4
900	31	1,061	15.0	86	110	8.9
850	31	1,543	12.2	87	110	8.0
800	31	2,050	9.7	80	114	5.8
750	31	2,584	8.1	58	106	3.5
700	31	3,152	5.6	45	124	1.2
650	31	3,755	2.4	34	239	1.7
600	31	4,397	- 1.6	30	257	5.6
550	31	5,081	- 5.7		258	8.4
500	31	5,825	-10.3		258	11.5
450	31	6,624	-15.7		262	14.4
400	31	7,507	-22.0		267	18.7
350	31	8,475	-29.2		264	23.5
300	31	9,558	-37.5		267	28.4
250	31	10,791	-47.1		269	38.5
200	31	12,232	-57.6		268	53.6
175	31	13,065	-62.5		268	60.6
150	31	14,006	-66.4		269	59.1
125	30	15,105	-69.2		270	45.5
100	29	16,431	-70.8		268	25.3
80	28	17,761	-68.7		240	8.7
70	27	18,563	-67.1		205	2.1
60	27	19,497	-64.7		96	8.9
50	27	20,620	-61.1		98	11.7
40	27	22,022	-57.0		95	15.0
30	26	23,860	-53.1		93	20.0
25	25	25,045	-51.2		90	24.7
20	25	26,507	-48.1		85	26.2
15	25	28,418	-44.8		88	28.0
10	24	31,152	-41.2		86	27.0
7	18	33,592	-34.8		83	31.7
5	7	35,929	-36.7			

HUNTINGTON, W VA. (989)

Standard pressure surface (mb.)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind	
					Direction	Speed
SURFACE	31	246	14.9	85	194	2.5
1,000	31	154				
950	31	601	18.7	63	258	8.9
900	31	1,056	16.6	60	269	10.9
850	31	1,541	13.6	61	270	13.0
800	31	2,049	10.2	59	274	13.8
750	31	2,583	6.8	52	275	15.5
700	31	3,147	3.3	48	283	15.0
650	31	3,737	- .9	48	284	15.3
600	31	4,379	- 4.8	39	285	16.1
550	31	5,052	- 8.9	32	286	15.7
500	31	5,791	-13.4		284	15.7
450	31	6,579	-19.1		281	17.1
400	31	7,452	-25.2		281	18.5
350	31	8,408	-32.5		283	19.4
300	31	9,476	-40.8		287	21.0
250	31	10,692	-50.2		288	21.4
200	31	12,118	-59.8		298	24.5
175	31	12,945	-63.1		294	22.3
150	31	13,896	-61.4		289	22.9
125	31	15,028	-61.4		289	20.0
100	31	16,405	-63.1		290	15.9
80	31	17,779	-63.1		300	10.5
70	31	18,605	-62.2		328	6.6
60	31	19,560	-60.5		348	5.2
50	31	20,704	-58.0		30	5.1
40	31	22,122	-55.0		50	4.3
30	30	23,978	-52.1		29	2.7
25	30	25,164	-50.3		357	1.2
20	27	26,625	-47.9		323	2.3
15	22	28,528	-44.7		284	8.0
10	7	31,224	-41.6			
7						

INTERNAT. FALLS, MINN. (970 MB.)

Standard pressure surface (mb.)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind	
					Direction	Speed
SURFACE	31	360	6.5	85	89	2.1
1,000	31	110				
950	31	540	8.2	73	119	3.3
900	31	981	7.4	69	145	5.2
850	31	1,450	5.8	67	189	5.2
800	31	1,945	4.0	60	219	7.6
750	31	2,466	1.2	58	239	9.1
700	31	3,021	- 1.9	53	251	12.4
650	31	3,598	- 5.4	50	258	15.0
600	31	4,231	- 8.8	47	260	20.4
550	31	4,892	-12.5	42	259	24.7
500	31	5,622	-16.9	39	259	29.3
450	31	6,398	-22.4	39	260	32.4
400	31	7,261	-28.7	39	261	36.7
350	31	8,203	-35.9		262	43.1
300	31	9,258	-43.7		264	46.0
250	31	10,462	-51.9		260	52.7
200	31	11,892	-55.9		258	46.8
175	30	12,735	-55.9		258	42.6
150	30	13,719	-54.3		263	32.8
125	29	14,889	-54.3		265	25.6
100	29	16,319	-55.1		269	22.2
80	29	17,740	-56.4		268	15.9
70	29	18,590	-55.9		267	11.9
60	29	19,573	-55.1		267	5.6
50	29	20,741	-54.2		338	2.7
40	28	22,175	-53.4		43	4.1
30	27	24,031	-51.4		70	8.0
25	27	25,219	-50.0		73	9.7
20	25	26,684	-47.9		77	9.7
15	22	28,586	-45.0		77	11.1
10	18	31,329	-37.8		72	12.4
7	10	33,814	-32.4			

JACKSON, MISS. (1007 MB.)

Standard pressure surface (mb.)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind	
					Direction	Speed
SURFACE	31	94	18.3	90	180	2.1
1,000	31	158	19.8	81	195	3.5
950	31	603	20.2	62	218	8.0
900	31	1,067	17.9	53	208	7.8
850	31	1,554	14.9	46	206	8.5
800	31	2,064	12.0	37	212	9.1
750	31	2,601	9.0	36	211	9.5
700	31	3,170	5.6	37	216	8.5
650	31	3,768	1.6	35	228	7.0
600	31	4,412	- 2.9	40	239	7.2
550	31	5,089	- 7.6	37	253	7.6
500	31	5,830	-12.5	35	261	8.5
450	31	6,620	-17.8		270	10.9
400	31	7,497	-24.1		278	12.4
350	31	8,458	-31.2		282	16.7
300	31	9,533	-39.4		290	20.0
250	31	10,757	-48.7		296	22.9
200	31	12,193	-58.2		296	27.4
175	31	13,028	-60.9		285	30.3
150	31	13,984	-62.0		283	29.0
125	30	15,108	-64.1		279	26.6
100	30	16,467	-66.4		283	17.9
80	30	17,812	-67.5		291	8.4
70	29	18,623	-66.4		319	4.3
60	29	19,557	-62.8		46	3.9
50	29	20,691	-58.9		70	8.0
40	29	22,102	-55.3		86	8.9
30	29	23,953	-51.5		86	9.1
25	29	25,142	-49.2		89	8.2
20	29	26,614	-46.4		86	6.0
15	24	28,536	-43.0		72	5.2
10	6	31,332	-38.8			
7						

JACKSONVILLE, FLA. (1018 MB.)

Standard pressure surface (mb.)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind	
					Direction	Speed
SURFACE	31	5	19.9	89	285	2.5
1,000	31	162	21.7	74	328	2.9
950	31	605	21.5	59	3	4.7
900	31	1,075	18.6	59	22	4.7
850	31	1,563	15.1	60	36	5.2
800	31	2,074	11.7	56	29	5.2
750	31	2,609	8.4	50	20	5.2
700	31	3,178	5.1	40	9	8.0
650	31	3,775	1.1	42	2	7.6
600	31	4,418	- 2.6	39	358	8.5
550	31	5,096	- 7.2	37	348	9.9
500	31	5,839	-11.9	37	335	8.9
450	31	6,633	-17.2	33	320	9.3
400	31	7,512	-23.4		309	9.3
350	31	8,474	-30.6		300	11.1
300	31	9,551	-38.8		303	13.0
250	31	10,778	-48.0		298	17.7
200	31	12,217	-57.2		296	24.5
175	31	13,054	-60.6		291	28.2
150	31	14,010	-61.9		291	29.7
125	31	15,134	-63.7		296	25.8
100	31	16,493	-66.2		302	20.4
80	31	17,838	-67.2		326	11.5
70	31	18,652	-65.1		4	8.2
60	31	19,592	-61.6		40	7.0
50	31	20,732	-57.7		85	7.8
40	31	22,151	-53.9		78	9.3
30	29	24,011	-50.1		88	9.9
25	28	25,213	-47.5		95	11.5
20	25	26,692	-44.3		87	12.0
15	22	28,621	-41.0		98	9.5
10	18	31,405	-36.0		74	2.9
7	12	33,857	-31.7			

KING SALMON, ALASKA (1012 MB.)

Standard pressure surface (mb.)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind	
					Direction	Speed
SURFACE	31	15	1.6	89	175	4.1
1,000	31	110			176	3.1
950	31	523	1.5	74	184	5.1
900	31	958	- .7	73	193	6.4
850	31	1,412	- 2.8	71	204	6.2
800	31	1,892	- 4.7	66	213	5.2
750	31	2,398	- 6.9	60	219	6.0
700	31	2,934	- 9.6	52	227	5.6
650	31	3,497	-12.8	48	230	6.4
600	31	4,110	-16.3	42	243	8.5
550	31	4,756	-20.3	38	248	9.7
500	31	5,460	-24.8	41	253	9.7
450	31	6,215	-30.1	43	262	11.5
400	31	7,048	-36.2	44	259	13.6
350	31	7,961	-43.0		271	15.9
300	31	8,985	-49.5		276	18.7
250	31	10,171	-52.4		276	22.0
200	31	11,615	-50.9		276	16.9
175	31	12,487	-49.8		274	15.3
150	31	13,495	-50.0		271	13.6
125	31	14,686	-50.2		274	10.9
100	31	16,141	-50.8		278	7.8
80	31	17,596	-50.7		284	5.6
70	30	18,475	-50.5		295	2.7
60	30	19,474	-50.5		329	2.3
50	30	20,665	-50.5		41	2.7
40	29	22,123	-50.4		54	4.5
30	27	24,002	-50.2		57	6.8
25	26	25,193	-49.6		60	9.1
20	23	26,658	-48.7		66	11.9
15	16	28,580	-46.8		75	14.6
10						
7						

KOROR, CAROLINE IS. (1006 MB.)

Standard pressure surface (mb.)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind	
					Direction	Speed
SURFACE	31	30	25.9	91	91	2.3
1,000	31	83	25.6	89	93	3.5
950	31	530	23.4	86	88	5.8
900	31	1,007	20.7	85	80	6.8
850	31	1,501	18.1	82	82	7.0
800	31	2,020	15.6	78	85	7.4
750	31	2,565	12.8	77	91	8.7
700	31	3,145	9.9	73	96	9.1
650	31	3,757	6.6	74	88	10.1
600	31	4,413	3.0	75	87	9.9
550	30	5,109	- .8	77	79	10.7
500	30	5,870	- 4.9	75	72	10.1
450	30	6,690	- 9.5	65	78	9.9
400	29	7,595	-15.1	61	79	10.5
350	29	8,591	-21.9	55	85	10.7
300	29	9,707	-30.1	49	100	10.7
250	28	10,976	-40.4		105	11.7
200	28	12,455	-53.1		103	11.5
175	28	13,301	-60.3		97	8.5
150	28	14,244	-68.2		91	5.6
125	27	15,315	-76.2		86	4.9
100	25	16,578	-81.8		92	10.1
80	18	17,830	-79.8		73	9.5
70	14	18,597	-76.0		47	6.6
60	13	19,503	-69.1		339	5.1
50	13	20,607	-64.9		303	4.1
40	12	21,980	-61.2		71	7.4
30	10	23,791	-56.7			
25	10	24,955	-54.5			
20	9	26,411	-49.1			
15	9	28,309	-47.0			
10	8	31,030	-41.9			

KOTZEBUE, ALASKA (1014 MB.)

Standard pressure surface (mb.)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind	
					Direction	Speed
SURFACE	31	5	- 2.5	90	73	1.2
1,000	31	115	- 1.3	83	77	2.1
950	31	523	- 2.4	80	146	3.7
900	31	952	- 4.2	78	171	8.7
850	31	1,401	- 5.8	74	199	4.3
800	31	1,874	- 7.9	68	197	5.4
750	31	2,370	-10.5	66	200	7.0
700	31	2,902	-13.1	67	211	7.2
650	31	3,458	-16.2	63	222	8.5
600	31	4,061	-19.8	57	229	9.5
550	31	4,693	-23.8	54	232	11.7
500	31	5,391	-28.4	51	238	12.2
450	31	6,129	-33.7	49	242	13.6
400	30	6,952	-39.5		240	16.3
350	30	7,854	-45.3		248	17.9
300	30	8,867	-50.9		253	21.0
250	30	10,048	-52.4		251	20.4
200	30	11,503	-48.3		254	16.1
175	30	12,383	-47.8		255	12.6
150	29	13,398	-47.8		257	11.7
125	29	14,600	-48.0		255	9.1
100	29	16,070	-48.2		261	7.0
80	29	17,542	-47.8		281	3.5
70	29	18,426	-48.0		268	2.1
60	29	19,439	-47.9		314	1.0
50	28	20,639	-47.8		39	1.4
40	28	22,112	-47.6		64	4.9
30	28	24,013	-47.2		68	7.2
25	27	25,217	-46.4		69	7.6
20	24	26,694	-45.1		69	11.5
15	22	28,605	-43.1		72	15.0
10	13	31,399	-38.2			

LAKE CHARLES, LA. (1017 MB.)

Standard pressure surface (mb.)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind	
					Direction	Speed
SURFACE	31	5	19.3	93	132	2.9
1,000	31	153	21.9	77	150	7.4
950	31	596	19.8	68	174	14.2
900	31	1,063	17.8	51	179	16.1
850	31	1,551	15.5	41	182	14.4
800	31	2,063	13.3	31	187	12.2
750	31	2,602	10.6	30	188	10.3
700	31	3,175	7.2	28	190	6.6
650	31	3,781	3.1	29	209	2.9
600	31	4,425	- 1.3	30	265	3.9
550	31	5,107	- 6.0	30	283	4.9
500	31	5,852	-11.1		290	7.2
450	31	6,650	-16.6		279	7.8
400	31	7,529	-23.1		280	13.2
350	31	8,493	-30.1		276	19.2
300	31	9,573	-38.3		281	23.7
250	31	10,802	-47.6		283	32.8
200	31	12,243	-57.5		282	41.6
175	31	13,079	-60.8		280	41.4
150	31	14,034	-62.5		277	38.1
125	31	15,151	-65.4		274	30.3
100	30	16,499	-68.6		271	16.5
80	30	17,835	-69.1		290	3.9
70	30	18,643	-67.5		68	3.7
60	30	19,571	-64.3		101	7.2
50	30	20,699	-60.0		91	9.3
40	30	22,109	-55.3		78	7.2
30	28	23,966	-51.1		85	10.3
25	26	25,153	-49.3		86	9.1
20	22	26,623	-46.5		105	8.0
15	16	28,548	-43.5		133	2.9
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LANDER, WYO. (826 MB.)

Standard pressure surface (mb.)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind	
					Direction	Speed
SURFACE	30	1,696	7.2	65	256	4.9
1,000	30	88				
950	30	518				
900	30	975				
850	30	1,456				
800	30	1,959	8.7	50	262	4.9
750	30	2,485	5.5	49	264	7.4
700	30	3,050	1.5	51	261	9.9
650	30	3,638	- 2.8	54	258	13.6
600	30	4,272	- 7.5	55	249	18.1
550	30	4,938	-12.4	54	246	20.8
500	30	5,666	-17.6	48	248	22.0
450	30	6,437	-23.3	42	246	25.5
400	30	7,299	-29.7	39	241	29.1
350	30	8,236	-37.2	38	235	34.8
300	30	9,284	-45.0		233	37.7
250	30	10,479	-53.0		233	38.5
200	30	11,900	-57.1		239	38.5
175	30	12,746	-56.2		242	35.0
150	30	13,729	-55.1		241	31.1
125	30	14,893	-55.2		246	24.7
100	30	16,316	-56.2		231	16.5
80	30	17,727	-58.0		228	9.9
70	30	18,572	-57.7		219	5.6
60	30	19,543	-56.5		211	3.7
50	30	20,704	-55.1		140	2.1
40	30	22,133	-54.1		62	4.7
30	30	23,986	-52.0		78	5.6
25	29	25,169	-50.3		64	4.3
20	25	26,638	-48.5		61	5.1
15						
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LAS VEGAS, NEV. (935 MB.)

Standard pressure surface (mb.)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind	
					Direction	Speed
SURFACE	31	660	16.0	31	213	8.0
1,000	31	78				
950	31	518				
900	31	983	17.1	28	221	11.1
850	31	1,467	14.4	29	236	11.1
800	31	1,975	10.5	32	227	10.1
750	31	2,507	6.4	34	213	8.5
700	31	3,070	2.3	36	215	10.1
650	31	3,659	- 2.0	37	219	11.5
600	31	4,296	- 6.4	34	233	14.4
550	31	4,961	-11.1	32	239	17.3
500	31	5,695	-16.5	32	241	21.0
450	31	6,470	-22.1	31	244	24.1
400	31	7,334	-27.8		247	26.2
350	31	8,275	-36.0		249	30.3
300	31	9,328	-43.4		253	36.5
250	31	10,536	-51.0		256	43.3
200	31	11,965	-56.6		256	45.9
175	30	12,811	-57.8		256	43.3
150	30	13,784	-57.4		256	39.6
125	29	14,932	-58.4		255	32.6
100	29	16,329	-60.3		248	23.1
80	29	17,719	-60.4		237	13.0
70	29	18,555	-60.8		237	6.0
60	29	19,512	-59.2		193	1.2
50	29	20,660	-57.1		105	1.9
40	29	22,078	-55.3		97	3.3
30	26	23,931	-52.6		89	4.5
25	26	25,113	-50.6		78	5.2
20	25	26,575	-47.4		65	3.3
15	22	28,487	-43.8		28	3.1
10						

See reference note at end of table

RAWINSONDE DATA

Average monthly values

MAY 1962

LIHUE, HAWAII (1014 MB.)

Standard pressure surface (mb)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind	
					Direction	Speed
SURFACE	31	36	22.5	79	62	6.4
1,000--	31	158	22.1	78	70	9.5
950----	31	604	18.6	81	85	13.4
900----	31	1,065	15.1	83	87	13.4
850----	31	1,547	12.1	81	88	12.2
800----	31	2,054	10.2	61	90	11.1
750----	31	2,590	8.2	44	78	7.8
700----	31	3,157	5.4	32	85	6.0
650----	31	3,753	1.6	35	129	2.9
600----	31	4,399	- 1.9		227	2.7
550----	31	5,079	- 6.1		240	5.2
500----	31	5,826	-11.0		261	7.4
450----	31	6,622	-16.3		266	8.9
400----	31	7,503	-22.7		280	10.7
350----	31	8,469	-30.0		281	15.0
300----	31	9,546	-38.7		278	19.4
250----	31	10,773	-48.4		278	25.8
200----	30	12,204	-59.2		276	34.4
175----	30	13,031	-63.8		277	46.0
150----	30	13,971	-65.4		278	46.0
125----	30	15,073	-67.9		271	34.6
100----	29	16,406	-69.7		270	21.2
80-----	29	17,743	-67.2		252	8.2
70-----	29	18,551	-65.5		205	1.9
60-----	27	19,489	-63.8		90	6.2
50-----	26	20,618	-60.5		99	11.9
40-----	25	22,022	-56.7		95	15.0
30-----	25	23,863	-52.6		89	18.3
25-----	25	25,046	-50.6		88	18.8
20-----	24	26,513	-48.0		85	19.2
15-----	22	28,423	-44.9		80	23.3
10-----	19	31,155	-41.0		87	21.8
7------	11	33,599	-37.8			
5------	[illegible]	35,916	-37.1			

LITTLE ROCK, ARK. (1007 MB.)

Standard pressure surface (mb)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind	
					Direction	Speed
SURFACE	31	79	17.7	89	220	3.7
1,000--	31	142	19.0	82	226	6.0
950----	31	584	19.9	66	235	16.3
900----	31	1,050	17.7	59	232	15.5
850----	31	1,537	15.3	49	225	14.4
800----	31	2,049	12.2	43	220	13.6
750----	31	2,586	9.1	37	228	12.0
700----	31	3,156	5.6	34	226	11.5
650----	31	3,750	1.5	36	234	11.7
600----	31	4,398	- 3.1	37	249	11.9
550----	31	5,070	- 8.0	38	252	13.6
500----	31	5,816	-13.0	34	261	14.0
450----	31	6,606	-18.5		264	17.7
400----	31	7,482	-24.6		270	16.3
350----	31	8,440	-31.5		269	17.3
300----	31	9,513	-39.9		276	19.8
250----	31	10,733	-49.3		279	21.4
200----	31	12,163	-58.7		273	28.0
175----	31	12,993	-61.7		270	32.3
150----	31	13,948	-61.4		273	30.3
125----	31	15,076	-62.8		272	25.5
100----	31	16,444	-65.0		269	19.0
80-----	31	17,799	-65.9		271	10.3
70-----	31	18,617	-64.6		277	6.0
60-----	30	19,556	-62.6		300	1.9
50-----	30	20,691	-59.1		60	3.5
40-----	30	22,103	-55.7		74	4.7
30-----	30	23,953	-51.9		82	4.3
25-----	27	25,144	-50.2		104	2.5
20-----	25	26,617	-47.4		33	.8
15-----	21	28,533	-44.5		217	2.3
10-----						
7------						
5------						

McGRATH, ALASKA (1002 MB.)

Standard pressure surface (mb)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind	
					Direction	Speed
SURFACE	31	103	2.2	75	191	0.8
1,000--	31	118			197	2.1
950----	31	530	1.9	64	212	3.3
900----	31	967	- .9	65	210	6.8
850----	31	1,422	- 3.4	66	193	6.4
800----	31	1,899	- 6.0	66	193	5.8
750----	31	2,399	- 8.7	62	201	7.2
700----	31	2,934	-11.6	59	213	7.4
650----	31	3,492	-15.1	60	207	9.3
600----	31	4,100	-18.4	58	212	7.6
550----	31	4,735	-22.5	54	225	8.0
500----	31	5,437	-27.1	50	228	9.3
450----	31	6,175	-32.4	49	243	11.7
400----	31	7,009	-38.4	47	247	14.2
350----	31	7,915	-44.4		253	18.8
300----	31	8,933	-50.6		255	22.0
250----	31	10,110	-53.4		262	20.0
200----	31	11,558	-49.7		262	12.8
175----	31	12,433	-49.0		263	12.4
150----	31	13,445	-49.0		270	10.9
125----	31	14,640	-49.5		267	9.5
100----	31	16,101	-49.3		275	5.6
80-----	30	17,561	-49.5		305	4.7
70-----	30	18,441	-49.2		291	2.7
60-----	30	19,447	-49.3		352	2.1
50-----	30	20,643	-49.2		55	3.1
40-----	30	22,107	-49.0		50	4.1
30-----	30	23,997	-48.5		57	6.2
25-----	27	25,205	-47.7		55	10.3
20-----	23	26,682	-46.6		70	13.6
15-----	12	28,615	-43.8		78	19.0
10-----						
7------						
5------						

MAJURO, MARSHALL IS. (1010 MB.)

Standard pressure surface (mb)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind	
					Direction	Speed
SURFACE	31	3	27.4	83	76	9.1
1,000--	31	90	26.8	83	79	10.9
950----	31	536	23.8	82	86	16.7
900----	31	1,016	20.8	80	92	18.7
850----	31	1,510	18.1	78	95	19.2
800----	31	2,028	15.7	74	95	18.5
750----	31	2,575	13.1	68	91	17.5
700----	31	3,154	10.1	65	88	14.4
650----	31	3,769	6.5	67	86	13.4
600----	31	4,421	2.8	65	80	8.4
550----	31	5,111	- 1.0	62	75	5.8
500----	31	5,877	- 5.1	54	62	3.1
450----	31	6,693	- 9.9	49	295	1.4
400----	31	7,599	-15.4	43	243	5.6
350----	31	8,595	-21.9	34	248	10.7
300----	31	9,710	-30.5		253	13.4
250----	30	10,978	-40.8		246	16.7
200----	30	12,455	-53.2		250	22.7
175----	30	13,302	-60.4		253	25.6
150----	30	14,246	-68.0		259	25.3
125----	30	15,322	-75.5		265	24.1
100----	30	16,593	-80.5		270	21.0
80-----	30	17,855	-78.0		272	13.6
70-----	30	18,627	-73.3		275	14.0
60-----	29	19,543	-67.4		284	11.9
50-----	28	20,652	-64.0		295	2.9
40-----	28	22,032	-60.1		80	9.7
30-----	28	23,844	-55.7		89	35.2
25-----	26	25,014	-53.0		88	44.5
20-----	26	26,463	-49.8		88	54.6
15-----	26	28,361	-45.8		88	63.1
10-----	26	31,095	-40.1		90	69.0
7------	21	33,531	-38.0		90	76.2
5------	16	35,856	-35.0		86	74.2

MEDFORD, OREG. (971 MB.)

Standard pressure surface (mb)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind	
					Direction	Speed
SURFACE	31	401	7.4	81	298	2.5
1,000--	31	156				
950----	31	581	7.9	74	295	4.5
900----	31	1,025	5.6	75	290	3.9
850----	31	1,491	2.8	79	274	3.3
800----	31	1,980	.3	74	263	5.1
750----	31	2,492	- 2.3	63	269	7.0
700----	31	3,041	- 5.0	50	267	11.5
650----	31	3,616	- 7.8	44	267	13.0
600----	31	4,240	-11.4	44	263	14.0
550----	31	4,896	-15.6	40	269	16.7
500----	31	5,616	-20.5	40	270	18.7
450----	31	6,381	-26.1	43	275	20.6
400----	31	7,230	-32.3	40	281	21.4
350----	31	8,159	-39.0		282	26.6
300----	31	9,201	-46.1		286	30.7
250----	31	10,394	-53.1		279	31.1
200----	31	11,819	-56.6		281	31.7
175----	31	12,667	-55.9		275	26.4
150----	30	13,649	-55.0		272	21.4
125----	30	14,813	-55.2		266	20.4
100----	30	16,237	-55.5		255	13.4
80-----	30	17,657	-56.1		241	10.7
70-----	30	18,509	-56.2		235	7.4
60-----	30	19,485	-55.8		223	3.9
50-----	30	20,646	-55.3		146	.8
40-----	29	22,076	-54.3		106	2.7
30-----	29	23,924	-52.9		68	3.9
25-----	28	25,104	-51.5		45	2.1
20-----	27	26,557	-49.3		59	2.9
15-----	26	28,453	-46.6		359	2.1
10-----	26	31,176	-40.8		284	2.5
7------	23	33,638	-37.8		281	3.9
5------	18	35,982	-32.7			

MIAMI, FLA. (1017 MB.)

Standard pressure surface (mb)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind	
					Direction	Speed
SURFACE	31	4	21.2	84	22	1.4
1,000--	31	153	22.4	76	51	3.7
950----	31	597	19.7	74	79	5.1
900----	31	1,063	17.0	62	67	6.4
850----	31	1,549	14.2	57	56	9.9
800----	31	2,059	11.7	46	49	11.1
750----	31	2,594	8.6	43	50	12.2
700----	31	3,164	5.4	37	50	11.5
650----	31	3,766	2.0	32	44	9.3
600----	31	4,409	- 1.6		23	7.2
550----	31	5,090	- 5.6		352	6.6
500----	31	5,839	-10.2		325	8.0
450----	31	6,635	-15.8		308	10.7
400----	31	7,522	-21.9		293	15.5
350----	31	8,491	-28.9		298	20.4
300----	31	9,576	-37.1		286	25.5
250----	31	10,812	-46.2		281	33.2
200----	31	12,261	-56.4		275	43.7
175----	31	13,100	-60.9		275	44.3
150----	30	14,049	-64.0		279	41.6
125----	30	15,156	-67.5		284	32.8
100----	29	16,491	-70.3		297	19.0
80-----	29	17,813	-70.4		339	8.4
70-----	29	18,617	-67.5		32	5.4
60-----	28	19,551	-63.4		75	7.8
50-----	28	20,682	-59.2		83	8.7
40-----	28	22,095	-54.8		89	12.2
30-----	[illegible]	23,951	-50.5		87	13.4
25-----	28	25,147	-48.0		96	14.6
20-----	27	26,626	-45.6		90	15.7
15-----	24	28,564	-41.2		92	18.7
10-----	18	31,362	-35.2		99	20.0
7------	12	33,858	-31.6			
5------						

MIDLAND, TEXAS (913 MB.)

Standard pressure surface (mb)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind	
					Direction	Speed
SURFACE	31	874	18.2	58	173	8.4
1,000--	31	82				
950----	31	526				
900----	31	997	19.1	55	177	14.4
850----	31	1,489	19.1	45	200	23.5
800----	31	2,008	17.3	33	217	19.4
750----	31	2,554	14.1	25	229	14.6
700----	31	3,133	9.8	24	237	11.5
650----	31	3,739	4.7	26	232	12.6
600----	31	4,389	- .7	28	231	14.8
550----	31	5,069	- 6.3	33	240	17.7
500----	31	5,815	-12.0	34	245	20.4
450----	31	6,607	-17.8		248	23.3
400----	31	7,483	-24.4		251	26.0
350----	31	8,441	-31.8		254	30.5
300----	31	9,511	-40.0		258	39.1
250----	31	10,731	-49.4		261	47.8
200----	31	12,161	-58.5		263	56.3
175----	30	12,996	-61.1		263	59.3
150----	30	13,951	-62.2		265	52.1
125----	28	15,073	-63.4		259	38.5
100----	27	16,438	-67.2		252	24.3
80-----	26	17,784	-67.2		242	8.5
70-----	26	18,604	-65.3		182	1.4
60-----	26	19,540	-61.6		90	3.1
50-----	26	20,675	-59.1		80	4.5
40-----	26	22,085	-55.6		88	7.0
30-----	24	23,930	-51.4		89	6.2
25-----	23	25,116	-49.1		93	2.7
20-----	23	26,588	-46.8		74	2.5
15-----	23	28,507	-43.7		57	1.0
10-----	23	31,254	-39.9		260	2.1
7------	19	33,714	-35.5		256	9.9
5------	15	36,067	-32.0			

MONTGOMERY, ALA. (1012 MB.)

Standard pressure surface (mb)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind	
					Direction	Speed
SURFACE	31	61	18.6	88	67	0.8
1,000--	31	165	20.5	78	329	.6
950----	31	609	21.3	61	305	4.7
900----	31	1,078	18.5	60	330	3.7
850----	31	1,566	15.0	57	248	1.7
800----	31	2,077	11.7	55	210	3.3
750----	31	2,611	8.6	41	231	5.2
700----	31	3,182	5.2	35	253	5.6
650----	31	3,779	1.4	34	263	5.1
600----	31	4,423	- 2.9	37	286	5.6
550----	31	5,098	- 7.6	35	300	6.6
500----	31	5,842	-12.4	32	287	8.4
450----	31	6,635	-18.0		286	10.1
400----	31	7,511	-23.9		284	11.7
350----	31	8,471	-31.3		285	13.0
300----	31	9,545	-39.6		291	16.5
250----	31	10,768	-48.8		296	20.6
200----	31	12,202	-58.4		296	22.5
175----	31	13,036	-61.0		289	26.4
150----	31	13,992	-61.4		284	27.0
125----	31	15,118	-63.6		286	26.6
100----	31	16,477	-66.8		293	20.0
80-----	31	17,822	-67.4		309	10.3
70-----	31	18,635	-66.0		327	6.6
60-----	31	19,570	-63.1		37	5.6
50-----	31	20,703	-58.9		66	7.0
40-----	31	22,116	-55.2		71	8.0
30-----	31	23,972	-47.9		83	7.6
25-----	31	25,162	-49.4		82	7.6
20-----	27	26,637	-46.6		89	5.1
15-----	16	28,552	-43.7		17	4.1
10-----						
7------						
5------						

NANTUCKET, MASS. (1017 MB.)

Standard pressure surface (mb)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind	
					Direction	Speed
SURFACE	31	14	10.6	81	299	1.4
1,000--	31	156	10.8	73	292	2.1
950----	31	583	11.3	58	299	4.7
900----	31	1,035	9.8	56	300	8.4
850----	31	1,508	7.2	56	306	11.9
800----	31	2,005	5.1	51	303	15.2
750----	31	2,527	2.7	47	303	18.8
700----	31	3,086	.0	43	302	20.2
650----	31	3,671	- 3.1	38	302	22.7
600----	31	4,306	- 6.5	36	301	25.6
550----	31	4,975	-10.4	33	301	27.0
500----	31	5,710	-14.9	29	300	27.8
450----	31	6,489	-20.4		302	26.8
400----	31	7,360	-27.0		302	26.2
350----	31	8,309	-34.2		307	34.6
300----	31	9,370	-42.3		310	37.7
250----	31	10,581	-50.7		312	40.8
200----	31	12,010	-58.0		308	40.6
175----	30	12,843	-59.4		311	39.8
150----	30	13,809	-58.8		305	30.1
125----	30	14,956	-58.4		302	24.9
100----	29	16,363	-58.8		311	19.6
80-----	29	17,761	-59.2		321	12.6
70-----	29	18,603	-58.2		337	9.5
60-----	29	19,574	-56.5		345	5.6
50-----	29	20,735	-54.9		350	4.3
40-----	29	22,168	-53.0		36	3.5
30-----	28	24,037	-50.4		7	1.6
25-----	27	25,230	-48.6		320	1.6
20-----	27	26,703	-46.7		277	3.9
15-----	26	28,632	-42.6		269	8.2
10-----	25	31,399	-37.4		277	10.3
7------	17	33,871	-31.0			
5------						

NASHVILLE, TENN. (997 MB.)

Standard pressure surface (mb)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind	
					Direction	Speed
SURFACE	31	177	17.8	87	198	2.3
1,000--	31	153				
950----	31	595	20.5	61	254	13.0
900----	31	1,062	17.9	59	259	14.4
850----	31	1,549	14.3	61	258	13.8
800----	31	2,059	11.0	55	259	12.8
750----	31	2,593	7.9	44	258	12.8
700----	31	3,161	4.2	39	258	12.4
650----	31	3,757	.2	39	263	13.6
600----	31	4,397	- 4.3	41	260	15.9
550----	31	5,073	- 8.8	36	263	17.3
500----	31	5,810	-13.6	33	268	18.1
450----	31	6,602	-19.0		266	18.1
400----	31	7,472	-25.0		270	18.8
350----	31	8,429	-32.1		272	18.5
300----	31	9,500	-40.2		277	20.2
250----	31	10,719	-49.7		285	22.5
200----	30	12,154	-59.0		284	25.1
175----	30	12,985	-62.1		282	27.0
150----	30	13,938	-61.6		279	29.5
125----	30	15,067	-62.6		286	25.3
100----	30	16,437	-64.8		287	19.6
80-----	30	17,796	-65.3		301	9.9
70-----	30	18,619	-64.4		320	6.0
60-----	30	19,559	-61.7		22	4.5
50-----	30	20,696	-58.7		66	4.7
40-----	30	22,109	-55.5		60	6.6
30-----	29	23,959	-51.8		67	4.9
25-----	29	25,145	-49.9		54	3.9
20-----	26	26,606	-47.4		130	1.4
15-----	26	28,524	-43.8		271	5.6
10-----	24	31,266	-39.9		276	12.4
7------	23	33,724	-36.4		274	12.6
5------	20	36,077	-32.4			

N. Y. INT. AP, IDLEWILD (1019 MB.)

Standard pressure surface (mb)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind	
					Direction	Speed
SURFACE	31	5	13.6	67	318	3.3
1,000--	31	162	12.9	62	325	4.1
950----	31	593	12.4	54	318	4.1
900----	31	1,046	11.2	52	307	8.2
850----	31	1,522	8.8	52	302	13.0
800----	31	2,022	6.3	54	293	16.5
750----	31	2,548	3.5	46	298	18.3
700----	31	3,106	.8	40	299	21.6
650----	31	3,697	- 2.4	40	302	23.5
600----	31	4,329	- 6.1	39	301	25.1
550----	31	5,000	- 9.9		304	27.0
500----	31	5,734	-14.7	34	300	29.7
450----	31	6,515	-20.3		300	30.9
400----	31	7,384	-26.7		297	30.7
350----	31	8,334	-33.9		300	33.4
300----	31	9,395	-42.1		300	37.9
250----	31	10,604	-51.0		300	41.6
200----	31	12,027	-59.1		303	41.2
175----	31	12,859	-60.9		309	39.6
150----	31	13,818	-60.4		307	28.4
125----	31	14,956	-59.6		302	26.2
100----	31	16,351	-60.0		310	18.1
80-----	31	17,740	-60.8		324	13.4
70-----	31	18,585	-59.4		327	11.3
60-----	31	19,541	-58.0		341	7.6
50-----	31	20,695	-56.1		357	4.5
40-----	30	22,121	-53.9		39	3.9
30-----	27	23,976	-51.4		29	2.1
25-----	26	25,164	-50.2		305	3.3
20-----	26	26,626	-48.5		293	6.0
15-----	14	28,553	-45.5		294	8.7
10-----						
7------						
5------						

NOME, ALASKA (1013 MB.)

Standard pressure surface (mb)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind	
					Direction	Speed
SURFACE	31	7	- 0.9	88	33	4.1
1,000--	31	111	- .1	80	44	3.9
950----	31	521	- 1.5	75	106	4.1
900----	31	950	- 3.1	73	143	4.1
850----	31	1,401	- 4.7	71	165	4.5
800----	31	1,877	- 6.9	66	190	5.1
750----	31	2,377	- 9.2	69	205	5.2
700----	31	2,910	-11.9	63	210	5.2
650----	31	3,470	-14.9	59	227	5.4
600----	31	4,076	-18.6	56	235	4.7
550----	31	4,715	-22.7	53	246	7.0
500----	31	5,413	-27.4	53	246	8.0
450----	31	6,155	-32.4	43	249	10.1
400----	31	6,985	-38.0		245	13.0
350----	31	7,893	-43.8		254	15.2
300----	31	8,915	-49.8		260	16.9
250----	31	10,099	-51.9		269	16.9
200----	31	11,554	-48.9		267	15.9
175----	31	12,432	-48.2		267	13.0
150----	31	13,447	-48.2		263	12.0
125----	30	14,651	-48.3		269	9.7
100----	30	16,120	-48.5		272	6.4
80-----	30	17,587	-48.6		284	2.9
70-----	30	18,469	-48.5		309	2.3
60-----	30	19,479	-48.4		286	1.2
50-----	30	20,680	-48.2		67	2.1
40-----	29	22,149	-48.3		60	3.5
30-----	27	24,044	-47.6		70	6.0
25-----	27	25,249	-47.1		73	9.1
20-----	27	26,729	-46.0		84	10.7
15-----	20	28,672	-43.6		77	15.5
10-----	[illegible]	31,507	-37.0			
7------						
5------						

NORFOLK, VA. (1017 MB.)

Standard pressure surface (mb)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind	
					Direction	Speed
SURFACE	31	9	17.2	82	15	1.0
1,000--	31	156	17.8	73	347	1.4
950----	31	596	17.4	58	350	3.9
900----	31	1,056	15.4	59	331	7.0
850----	31	1,539	12.5	63	317	8.9
800----	31	2,046	9.1	68	306	10.5
750----	31	2,576	6.0	60	301	14.0
700----	31	3,140	2.6	53	299	15.9
650----	31	3,735	- .9	44	302	17.9
600----	31	4,372	- 4.5	39	304	18.8
550----	31	5,045	- 8.6	37	304	19.8
500----	31	5,786	-13.0	32	304	20.4
450----	31	6,575	-18.3		303	21.2
400----	31	7,451	-24.6		303	22.5
350----	31	8,408	-31.9		295	21.4
300----	31	9,478	-40.5		291	21.6
250----	31	10,694	-50.2		301	26.4
200----	31	12,119	-59.6		302	29.1
175----	31	12,947	-62.7		296	29.3
150----	31	13,895	-63.0		301	26.8
125----	31	15,021	-61.8		301	23.3
100----	30	16,395	-62.5		304	18.5
80-----	29	17,773	-62.4		317	11.7
70-----	29	18,602	-61.6		331	8.2
60-----	29	19,557	-59.5		11	6.0
50-----	29	20,705	-56.5		49	4.9
40-----	28	22,129	-53.0		60	5.2
30-----	28	24,000	-49.7		105	1.9
25-----	27	25,185	-48.2		30	2.1
20-----	24	26,662	-46.0		345	1.9
15-----	18	28,575	-42.3		289	7.8
10-----						
7------						
5------						

NORTH PLATTE, NEBR. (912 MB.)

Standard pressure surface (mb)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind	
					Direction	Speed
SURFACE	31	848	11.2	75	98	1.7
1,000--	31	72				
950----	31	505				
900----	31	962	13.3	68	105	2.1
850----	31	1,446	14.3	58	217	6.6
800----	31	1,956	12.5	47	237	14.4
750----	31	2,488	9.6	41	238	16.9
700----	31	3,064	5.2	43	243	17.5
650----	31	3,657	.7	41	250	18.7
600----	31	4,302	- 4.3	41	250	21.6
550----	31	4,972	- 9.6	41	252	24.9
500----	31	5,710	-15.1	41	248	24.5
450----	31	6,485	-21.2	38	243	28.0
400----	31	7,356	-27.8	35	247	28.8
350----	31	8,302	-34.7		249	31.9
300----	30	9,357	-42.9		248	35.2
250----	30	10,563	-51.7		248	35.9
200----	30	11,982	-59.4		258	39.6
175----	29	12,817	-60.1		248	39.1
150----	29	13,784	-58.0		256	38.5
125----	29	14,933	-58.1		261	28.2
100----	29	16,334	-59.4		263	18.5
80-----	29	17,724	-60.9		236	10.3
70-----	29	18,562	-59.9		229	6.4
60-----	29	19,520	-59.2		257	2.5
50-----	29	20,667	-57.0		72	1.4
40-----	29	22,086	-55.2		90	1.9
30-----	29	23,931	-52.9		58	3.1
25-----	29	25,111	-51.5		68	1.7
20-----	27	26,570	-49.2		84	1.4
15-----	27	28,471	-45.9		255	2.1
10-----	24	31,208	-40.4		259	6.0
7------	21	33,664	-37.3		274	9.3
5------	20	35,999	-32.9			

OAKLAND, CALIF. (1016 MB.)

Standard pressure surface (mb)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind	
					Direction	Speed
SURFACE	31	6	11.2	76	276	4.9
1,000--	31	136	10.5	77	267	5.4
950----	31	567	9.3	72	283	7.8
900----	31	1,013	9.8	55	307	10.5
850----	31	1,486	7.6	49	307	9.9
800----	31	1,983	4.9	41	306	9.3
750----	31	2,507	2.2	35	302	10.7
700----	31	3,062	- .5		292	12.2
650----	31	3,647	- 3.7		292	13.0
600----	31	4,279	- 7.7		289	16.7
550----	31	4,944	-12.1	30	286	20.4
500----	31	5,673	-17.2	36	287	24.1
450----	31	6,448	-23.0	33	288	27.0
400----	31	7,307	-29.5	32	286	30.1
350----	31	8,247	-36.9		287	32.4
300----	31	9,297	-44.6		286	38.1
250----	31	10,498	-52.2		286	43.5
200----	31	11,925	-57.2		278	43.1
175----	31	12,769	-57.6		273	38.7
150----	30	13,744	-56.5		272	36.1
125----	30	14,899	-57.8		267	29.7
100----	30	16,304	-58.6		261	23.5
80-----	29	17,704	-58.7		256	15.0
70-----	29	18,548	-58.2		240	9.1
60-----	29	19,516	-57.5		235	3.1
50-----	29	20,672	-57.0		116	1.0
40-----	29	22,089	-55.3		102	3.7
30-----	29	23,934	-53.1		68	1.4
25-----	29	25,113	-51.4		46	1.4
20-----	28	26,562	-49.3		75	2.1
15-----	27	28,458	-46.2		[illegible]	2.3
10-----	26	31,179	-40.9		281	6.0
7------	25	33,628	-37.0		272	11.5
5------	20	35,983	-33.5			

See reference note at end of table

RAWINSONDE DATA

Average monthly values

MAY 1962

OKLAHOMA CITY, OKLA.
(968 MB.)

Standard pressure surface (mb.)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind	
					Direction	Speed
SURFACE	31	392	17.8	80	165	11.1
1,000--	31	109				
950----	31	553	19.3	68	179	17.9
900----	31	1,017	19.4	53	207	27.8
850----	31	1,508	17.7	43	218	26.0
800----	31	2,024	14.8	37	218	20.0
750----	31	2,566	11.3	31	217	17.5
700----	31	3,139	7.2	32	220	16.5
650----	31	3,737	2.6	34	230	15.0
600----	31	4,386	- 2.6	35	243	15.7
550----	31	5,062	- 7.9	37	248	18.3
500----	31	5,803	-13.4	33	248	19.8
450----	31	6,592	-19.1		246	22.0
400----	31	7,463	-25.5		247	25.8
350----	31	8,419	-32.4		248	28.2
300----	31	9,487	-40.9		249	30.7
250----	31	10,702	-50.3		253	35.2
200----	31	12,127	-59.4		251	39.2
175----	31	12,959	-60.8		254	41.2
150----	31	13,918	-60.3		258	38.1
125----	31	15,053	-61.8		257	33.8
100----	31	16,425	-64.0		257	23.3
80-----	31	17,788	-64.7		251	11.9
70-----	31	18,612	-63.8		234	6.2
60-----	31	19,558	-61.5		187	2.1
50-----	31	20,697	-59.0		101	3.9
40-----	30	22,108	-55.8		86	6.2
30-----	30	23,957	-52.0		76	3.7
25-----	29	25,142	-50.1		56	3.7
20-----	28	26,612	-47.4		83	1.7
15-----	16	28,548	-43.8		268	3.9
10-----						
7------						
5------						

OMAHA, NEBR.
(964 MB.)

Standard pressure surface (mb.)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind	
					Direction	Speed
SURFACE	31	403	15.4	77	135	4.9
1,000--	31	89				
950----	31	528	16.3	70	149	6.6
900----	31	987	16.4	62	196	16.1
850----	31	1,472	14.6	56	223	19.0
800----	31	1,983	11.8	52	238	19.4
750----	31	2,513	8.2	48	239	20.0
700----	31	3,086	4.2	47	240	21.8
650----	31	3,678	- .4	43	244	23.5
600----	31	4,320	- 4.8	37	251	24.5
550----	31	4,990	- 9.7	37	254	25.3
500----	31	5,727	-15.1	33	250	28.0
450----	31	6,507	-20.5		249	30.3
400----	31	7,378	-27.1		250	30.9
350----	31	8,326	-34.1		250	33.8
300----	31	9,388	-42.3		248	34.8
250----	31	10,595	-51.6		249	35.4
200----	30	12,021	-59.8		247	41.0
175----	30	12,850	-62.0		249	40.4
150----	30	13,807	-59.9		254	38.5
125----	30	14,950	-59.0		256	30.9
100----	30	16,343	-60.9		254	19.0
80-----	29	17,722	-61.7		249	12.8
70-----	29	18,553	-61.3		242	5.1
60-----	29	19,509	-59.8		252	2.1
50-----	29	20,654	-58.0		310	.8
40-----	29	22,067	-55.9		75	1.4
30-----	29	23,906	-53.7		88	1.7
25-----	29	25,082	-52.0		83	1.4
20-----	28	26,535	-50.0		88	.6
15-----	14	28,388	-47.5		91	1.2
10-----						
7------						
5------						

PEORIA, ILL.
(992 MB.)

Standard pressure surface (mb.)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind	
					Direction	Speed
SURFACE	31	200	15.4	84	149	3.7
1,000--	31	129				
950----	31	568	18.3	65	218	10.7
900----	31	1,031	16.6	61	241	17.1
850----	31	1,517	14.2	53	239	17.9
800----	31	2,026	10.9	52	239	18.3
750----	31	2,556	7.5	50	244	18.3
700----	31	3,126	3.7	47	253	18.8
650----	31	3,719	- .4	46	257	21.0
600----	31	4,359	- 4.7	43	261	20.6
550----	31	5,030	- 9.3	41	261	20.6
500----	31	5,769	-14.3	40	262	21.4
450----	31	6,550	-19.7	36	266	22.0
400----	31	7,425	-26.0	35	264	23.9
350----	31	8,378	-32.9		263	26.0
300----	31	9,444	-40.8		264	27.6
250----	31	10,660	-49.9		262	31.3
200----	31	12,086	-59.2		266	36.7
175----	31	12,917	-61.9		271	36.1
150----	31	13,874	-59.7		274	32.4
125----	31	15,017	-59.6		270	24.7
100----	31	16,407	-61.2		267	16.9
80-----	30	17,795	-62.0		276	10.3
70-----	30	18,630	-61.1		289	5.4
60-----	30	19,584	-59.4		354	1.9
50-----	30	20,731	-57.7		48	3.5
40-----	30	22,147	-55.5		52	4.1
30-----	30	23,993	-52.9		56	4.7
25-----	30	25,175	-50.7		49	2.7
20-----	29	26,629	-49.0		51	1.4
15-----	28	28,533	-45.8		263	4.9
10-----	26	31,265	-40.6		271	10.5
7------	24	33,705	-36.7		276	10.9
5------	18	36,063	-31.7			

PITTSBURGH, PA.
(977 MB.)

Standard pressure surface (mb.)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind	
					Direction	Speed
SURFACE	31	353	12.7	82		0.0
1,000--	31	159				
950----	31	593	14.8	71	254	5.2
900----	31	1,050	13.6	66	268	10.1
850----	31	1,530	10.7	69	276	13.0
800----	31	2,034	7.9	67	280	17.9
750----	31	2,560	5.1	59	282	20.0
700----	31	3,125	1.9	54	282	21.6
650----	31	3,713	- 1.7	49	284	22.5
600----	31	4,352	- 5.3	43	285	22.5
550----	31	5,019	- 9.5		286	23.7
500----	31	5,759	-14.3		287	23.9
450----	31	6,545	-20.0		286	26.6
400----	31	7,413	-26.3		287	28.6
350----	31	8,365	-33.4		289	30.5
300----	31	9,430	-41.8		291	32.6
250----	31	10,641	-50.8		294	37.9
200----	31	12,065	-59.7		299	41.8
175----	31	12,894	-62.3		298	36.7
150----	31	13,848	-60.7		289	29.9
125----	31	14,984	-60.6		291	26.2
100----	31	16,371	-60.9		296	19.2
80-----	30	17,756	-62.1		310	11.7
70-----	30	18,589	-61.1		321	9.5
60-----	29	19,548	-59.4		355	7.8
50-----	29	20,694	-57.3		47	4.7
40-----	29	22,112	-54.8		40	7.0
30-----	27	23,960	-52.4		55	5.6
25-----	26	25,142	-50.7		24	3.3
20-----	24	26,606	-48.6		260	.8
15-----	22	28,519	-45.3		295	5.6
10-----	16	31,282	-39.6		266	15.5
7------	14	33,775	-35.5		273	14.0
5------	9	36,140	-30.4			

POINT ARGUELLO, CALIF.
(1003 MB.)

Standard pressure surface (mb.)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind	
					Direction	Speed
SURFACE	31	113	9.6	91	318	6.4
1,000--	31	139	9.5	90	322	8.4
950----	31	565	9.7	71	336	12.6
900----	31	1,015	10.2	46	343	13.2
850----	31	1,489	8.4	39	338	13.4
800----	31	1,988	6.8	28	327	11.7
750----	31	2,506	4.5	24	302	12.2
700----	31	3,076	2.0	18	294	13.6
650----	31	3,665	- 1.6	20	287	15.7
600----	31	4,303	- 5.7	20	286	19.2
550----	31	4,972	-10.5	21	281	22.3
500----	31	5,705	-15.9	20	280	25.5
450----	31	6,486	-21.7	20	278	29.1
400----	31	7,347	-28.1	20	277	33.4
350----	31	8,292	-35.1	19	278	38.5
300----	31	9,350	-42.8		276	42.4
250----	31	10,559	-50.8		275	46.8
200----	31	11,987	-57.9		273	49.9
175----	31	12,826	-58.8		270	49.9
150----	31	13,795	-58.6		266	44.7
125----	31	14,938	-59.9		265	41.0
100----	31	16,326	-61.6		261	27.6
80-----	31	17,709	-61.3		257	16.1
70-----	31	18,543	-60.6		249	8.7
60-----	31	19,500	-59.7		232	4.9
50-----	31	20,645	-57.6		132	2.1
40-----	31	22,060	-55.7		93	3.1
30-----	31	23,901	-53.2		69	5.4
25-----	31	25,080	-51.3		78	6.0
20-----	30	26,536	-48.7		85	4.1
15-----	28	28,445	-44.9		26	.6
10-----	26	31,186	-39.7		274	2.9
7------	22	33,623	-35.2		286	8.9
5------	9	35,990	-31.7			

PONAPE, CAROLINE IS.
(1004 MB.)

Standard pressure surface (mb.)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind	
					Direction	Speed
SURFACE	31	39	26.1	88	70	5.6
1,000--	31	76	26.0	86	75	7.2
950----	31	521	22.9	89	85	15.9
900----	31	999	20.3	86	88	20.2
850----	31	1,492	18.0	81	91	20.4
800----	31	2,011	15.7	69	92	18.5
750----	31	2,553	13.1	65	96	16.3
700----	31	3,136	9.8	69	98	13.0
650----	31	3,745	6.3	71	91	11.9
600----	31	4,403	2.8	71	87	9.5
550----	31	5,100	- 1.1	69	94	6.2
500----	30	5,860	- 4.9	59	103	4.5
450----	30	6,678	- 9.7	63	116	3.3
400----	30	7,584	-15.4	57	52	1.9
350----	30	8,578	-22.1	58	4	3.5
300----	30	9,693	-30.5	51	297	2.7
250----	30	10,962	-40.6		248	2.1
200----	30	12,440	-53.4		279	7.0
175----	30	13,286	-60.2		276	8.7
150----	29	14,230	-67.5		267	11.3
125----	26	15,307	-74.4		269	15.2
100----	16	16,583	-79.8		272	12.6
80-----	15	17,853	-76.6		261	10.5
70-----	13	18,622	-72.9		264	10.3
60-----	10	19,518	-69.0		278	10.1
50-----	10	20,627	-64.0		294	4.3
40-----	10	22,003	-61.2		62	8.2
30-----	8	23,811	-56.1			
25-----	7	24,990	-52.5			
20-----	5	26,452	-50.0			
15-----						
10-----						

PORTLAND, ME.
(1017 MB.)

Standard pressure surface (mb.)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind	
					Direction	Speed
SURFACE	31	20	9.6	73	291	2.7
1,000--	31	156	9.6	66	268	3.5
950----	31	584	8.3	62	296	4.9
900----	31	1,027	7.0	64	294	6.8
850----	31	1,496	5.3	60	303	10.9
800----	31	1,988	3.2	58	307	14.6
750----	31	2,508	.7	54	309	17.5
700----	31	3,062	- 1.7	45	305	18.5
650----	31	3,645	- 4.8	39	302	22.0
600----	31	4,275	- 8.3	40	301	26.0
550----	31	4,939	-12.3	38	298	29.3
500----	31	5,668	-17.1	35	300	30.9
450----	31	6,445	-22.5	33	300	35.2
400----	31	7,307	-28.5	34	300	39.1
350----	31	8,250	-35.3		302	42.0
300----	31	9,307	-42.9		303	45.3
250----	31	10,515	-50.7		302	49.5
200----	31	11,950	-56.5		305	46.2
175----	31	12,795	-57.6		305	37.9
150----	31	13,768	-57.8		301	28.4
125----	31	14,920	-56.9		305	23.9
100----	31	16,332	-57.4		318	17.9
80-----	30	17,747	-57.8		321	12.0
70-----	30	18,595	-57.3		330	8.2
60-----	30	19,568	-55.9		340	5.2
50-----	30	20,732	-51.1		350	4.5
40-----	30	22,167	-52.8		14	4.1
30-----	26	24,035	-50.7		37	3.9
25-----	18	25,221	-49.9		4	4.7
20-----	10	26,712	-48.6			
15-----						
10-----						

RAPID CITY, S. DAK.
(901 MB.)

Standard pressure surface (mb.)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind	
					Direction	Speed
SURFACE	31	966	9.8	79	356	4.7
1,000--	31	88				
950----	31	515				
900----	31	974			12	3.7
850----	31	1,450	9.9	65	318	5.8
800----	31	1,952	7.8	59	299	4.9
750----	31	2,480	5.2	56	281	10.5
700----	31	3,041	1.7	54	276	14.2
650----	31	3,629	- 2.2	52	272	17.7
600----	31	4,266	- 6.3	48	261	19.2
550----	31	4,932	-11.1	44	257	20.8
500----	31	5,664	-16.6	45	255	23.5
450----	31	6,441	-22.4	41	255	26.0
400----	31	7,301	-28.8	38	247	31.9
350----	31	8,242	-36.1		243	32.1
300----	31	9,293	-44.4		239	34.2
250----	31	10,490	-53.1		240	37.1
200----	31	11,904	-58.7		239	41.8
175----	31	12,745	-57.1		242	38.3
150----	31	13,724	-55.6		245	33.2
125----	31	14,885	-55.8		243	24.1
100----	31	16,300	-57.1		243	15.3
80-----	31	17,705	-58.5		242	10.9
70-----	31	18,551	-58.1		242	6.4
60-----	31	19,518	-57.5		242	3.5
50-----	31	20,674	-55.8		127	.6
40-----	30	22,098	-55.0		78	3.3
30-----	30	23,943	-53.5		76	3.7
25-----	28	25,116	-52.1		78	4.9
20-----	27	26,566	-50.0		78	5.1
15-----	18	28,451	-47.2		65	1.7
10-----						

ST. CLOUD, MINN.
(975 MB.)

Standard pressure surface (mb.)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind	
					Direction	Speed
SURFACE	31	316	11.3	82	114	1.2
1,000--	31	101				
950----	31	533	12.2	74	130	3.7
900----	31	983	11.0	68	212	5.8
850----	31	1,459	9.5	62	249	10.1
800----	31	1,961	7.5	56	258	13.2
750----	31	2,486	4.5	55	262	16.5
700----	31	3,050	1.6	53	265	19.4
650----	31	3,636	- 2.0	53	264	22.2
600----	31	4,275	- 6.1	50	263	24.9
550----	31	4,945	-10.6	46	267	25.1
500----	31	5,677	-15.4	40	265	29.0
450----	31	6,456	-21.2	38	264	30.9
400----	31	7,323	-27.6	38	260	33.4
350----	31	8,268	-35.0		259	35.2
300----	31	9,326	-43.0		258	40.0
250----	31	10,532	-51.6		259	42.4
200----	31	11,953	-58.8		253	43.9
175----	31	12,789	-59.0		255	41.4
150----	31	13,761	-56.6		260	30.7
125----	31	14,919	-56.6		265	24.1
100----	31	16,332	-57.7		259	20.6
80-----	31	17,736	-59.0		271	12.8
70-----	31	18,580	-58.4		269	8.5
60-----	30	19,552	-57.4		292	4.5
50-----	30	20,711	-55.7		331	1.9
40-----	28	22,135	-54.8		45	2.9
30-----	28	23,982	-53.1		60	6.2
25-----	28	25,162	-51.6		74	6.4
20-----	26	26,614	-49.9		60	5.4
15-----	25	28,507	-47.3		60	6.2
10-----	20	31,232	-40.8		259	4.9

ST. PAUL IS., ALASKA
(1012 MB.)

Standard pressure surface (mb.)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind	
					Direction	Speed
SURFACE	31	10	0.2	93	262	3.1
1,000--	31	105			235	4.5
950----	31	511	- 1.8	89	261	6.8
900----	31	944	- 2.7	82	263	6.4
850----	31	1,397	- 3.5	74	257	7.0
800----	31	1,876	- 4.6	64	262	8.0
750----	31	2,379	- 6.7	56	268	7.0
700----	31	2,919	- 9.3	53	271	9.1
650----	31	3,481	-12.5	50	266	11.3
600----	31	4,092	-16.2	47	259	14.8
550----	31	4,739	-19.9	44	269	14.4
500----	31	5,444	-24.6	45	267	17.5
450----	31	6,201	-29.5	43	267	19.0
400----	31	7,040	-35.5	41	275	16.3
350----	31	7,958	-41.2		275	19.4
300----	31	8,991	-47.3		269	24.7
250----	31	10,182	-52.0		268	25.3
200----	31	11,624	-52.2		275	22.3
175----	31	12,490	-51.2		270	18.8
150----	31	13,492	-51.1		265	14.8
125----	31	14,676	-51.4		256	12.6
100----	30	16,124	-51.0		258	9.1
80-----	30	17,576	-50.8		241	3.9
70-----	30	18,451	-50.8		235	2.7
60-----	30	19,448	-50.7		197	2.1
50-----	29	20,634	-50.5		122	1.7
40-----	29	22,089	-50.4		107	4.3
30-----	26	23,967	-50.4		87	6.4
25-----	24	25,151	-49.8		90	7.0
20-----	23	26,606	-48.9		86	9.7
15-----	18	28,474	-47.7		82	10.9
10-----	5	31,098	-45.5			

SALEM, OREG.
(1012 MB.)

Standard pressure surface (mb.)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind	
					Direction	Speed
SURFACE	31	61	7.5	85	213	1.7
1,000--	31	157	7.9	78	226	2.3
950----	31	577	5.9	77	269	3.5
900----	31	1,020	3.2	79	258	5.1
850----	31	1,482	.8	77	251	8.2
800----	31	1,967	- 1.8	73	254	9.7
750----	31	2,477	- 3.8	61	263	11.3
700----	31	3,021	- 6.4	58	263	13.4
650----	31	3,594	- 9.0	49	264	15.3
600----	31	4,215	-12.3	43	261	16.9
550----	31	4,870	-16.4	40	259	19.0
500----	31	5,585	-21.2	41	261	20.4
450----	31	6,350	-26.8	44	260	22.7
400----	31	7,194	-32.9	45	265	24.5
350----	31	8,121	-39.7		269	27.4
300----	31	9,158	-47.2		270	30.1
250----	31	10,346	-53.6		276	34.4
200----	31	11,770	-55.8		276	29.1
175----	31	12,623	-54.4		271	23.5
150----	31	13,613	-53.8		265	21.4
125----	31	14,783	-54.5		260	18.5
100----	31	16,211	-54.5		248	14.6
80-----	31	17,639	-54.8		236	9.7
70-----	31	18,493	-55.1		236	7.6
60-----	31	19,476	-55.2		233	5.4
50-----	31	20,641	-54.5		202	2.3
40-----	28	22,075	-54.0		125	1.4
30-----	26	23,927	-52.8		58	.6
25-----	23	25,112	-51.5		293	1.0
20-----	22	26,572	-49.2		38	1.9
15-----	16	28,467	-46.6		359	1.2
10-----						

SALT LAKE CITY, UTAH
(869 MB.)

Standard pressure surface (mb.)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind	
					Direction	Speed
SURFACE	31	1,288	10.1	70	167	6.0
1,000--	31	98				
950----	31	533				
900----	31	990				
850----	31	1,469	12.0	53	177	8.2
800----	31	1,974	9.4	47	200	9.1
750----	31	2,505	5.5	49	235	8.9
700----	31	3,067	1.1	55	233	12.2
650----	31	3,657	- 3.4	60	228	14.2
600----	31	4,287	- 8.0	60	239	15.7
550----	31	4,954	-12.7	53	236	17.1
500----	31	5,678	-18.0	47	234	19.6
450----	31	6,455	-23.7	40	240	22.0
400----	31	7,308	-29.8	36	240	24.7
350----	31	8,246	-37.3		244	27.6
300----	31	9,293	-45.7		242	29.7
250----	31	10,487	-52.8		244	32.8
200----	31	11,910	-57.0		248	34.0
175----	31	12,755	-56.8		244	33.2
150----	30	13,732	-55.5		243	30.1
125----	29	14,891	-55.6		242	23.3
100----	29	16,309	-56.9		233	15.9
80-----	29	17,719	-58.3		231	9.5
70-----	29	18,565	-58.8		225	7.4
60-----	29	19,527	-57.7		200	3.9
50-----	28	20,680	-56.4		146	2.3
40-----	27	22,098	-55.3		119	1.9
30-----	22	23,953	-52.5		91	2.5
25-----	21	25,137	-51.0		59	3.1
20-----	17	26,605	-48.7		360	2.1
15-----	12	28,518	-45.0		258	1.9
10-----	6	31,317	-40.9			

SAN ANTONIO, TEXAS
(987 MB.)

Standard pressure surface (mb.)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind	
					Direction	Speed
SURFACE	31	243	20.2	87	157	6.2
1,000--	31	126				
950----	31	569	18.3	83	166	15.7
900----	31	1,032	16.2	68	174	19.8
850----	31	1,519	15.9	47	179	15.9
800----	31	2,033	15.0	34	179	11.1
750----	31	2,579	12.6	23	178	6.0
700----	31	3,153	9.2	25	209	3.3
650----	31	3,759	5.2	27	294	4.1
600----	31	4,411	.1	29	302	6.8
550----	31	5,095	- 5.4	28	285	8.9
500----	31	5,843	-10.7		278	11.5
450----	31	6,643	-16.4		282	15.3
400----	31	7,523	-23.0		281	18.5
350----	31	8,486	-30.2		278	22.9
300----	31	9,563	-38.6		274	28.0
250----	31	10,791	-48.0		272	35.0
200----	31	12,231	-57.3		278	43.5
175----	31	13,067	-61.4		276	47.4
150----	31	14,017	-64.0		273	42.2
125----	31	15,129	-66.4		267	34.4
100----	31	16,472	-69.3		263	20.6
80-----	30	17,806	-69.0		251	5.4
70-----	29	18,611	-67.4		119	4.1
60-----	28	19,542	-64.2		109	8.9
50-----	28	20,672	-60.0		89	11.5
40-----	28	22,080	-56.1		83	9.9
30-----	27	23,932	-51.8		80	10.9
25-----	25	25,123	-49.4		85	10.5
20-----	23	26,596	-46.8		94	8.2
15-----	19	28,509	-43.5		109	6.6
10-----	9	31,268	-40.1			

SAN DIEGO, CALIF.
(1000 MB.)

Standard pressure surface (mb.)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind	
					Direction	Speed
SURFACE	31	124	12.7	85	264	1.0
1,000--	31	128			274	.8
950----	31	558	11.1	73	276	3.1
900----	31	1,011	11.0	59	270	4.5
850----	31	1,487	10.6	42	277	7.8
800----	31	1,991	8.5	36	271	10.1
750----	31	2,516	6.3	27	261	12.4
700----	31	3,086	3.6	23	261	14.2
650----	31	3,674	.3	22	265	18.1
600----	31	4,323	- 3.4		268	21.2
550----	31	4,995	- 8.0		266	23.9
500----	31	5,740	-13.6		263	26.2
450----	31	6,523	-19.5		265	31.5
400----	31	7,399	-26.3		263	34.4
350----	31	8,351	-33.5		263	42.0
300----	31	9,415	-41.4		266	46.8
250----	31	10,630	-49.9		264	53.0
200----	31	12,062	-57.6		262	58.5
175----	31	12,899	-60.0		264	54.2
150----	31	13,862	-59.6		260	54.0
125----	31	15,000	-60.8		261	44.7
100----	31	16,382	-62.4		257	26.2
80-----	31	17,754	-63.4		246	14.6
70-----	31	18,579	-62.2		235	10.1
60-----	31	19,532	-60.1		210	2.5
50-----	31	20,675	-57.6		104	3.5
40-----	31	22,092	-55.1		81	4.5
30-----	30	23,940	-52.4		84	7.4
25-----	30	25,125	-49.9		90	5.1
20-----	29	26,590	-47.4		82	2.5
15-----	22	28,502	-44.0		81	2.5
10-----						

SAN JUAN, P. R.
(1014 MB.)

Standard pressure surface (mb.)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind	
					Direction	Speed
SURFACE	31	6	24.3	85		0.0
1,000--	31	132	23.8	82	92	5.1
950----	31	579	21.1	80	100	8.9
900----	31	1,047	18.2	78	108	7.8
850----	31	1,536	15.5	70	114	6.0
800----	31	2,048	13.0	62	138	3.5
750----	31	2,586	10.4	51	165	3.1
700----	31	3,161	7.8	43	240	4.7
650----	31	3,762	4.8	35	245	6.6
600----	31	4,418	1.3	38	253	10.5
550----	31	5,105	- 2.6	35	252	14.8
500----	31	5,863	- 7.3	41	255	17.3
450----	31	6,673	-12.4	36	256	19.4
400----	31	7,567	-18.3	33	256	23.3
350----	31	8,550	-25.1		259	29.3
300----	31	9,651	-33.4		263	36.3
250----	31	10,905	-43.4		263	41.4
200----	31	12,369	-55.2		261	46.6
175----	31	13,209	-61.5		263	48.0
150----	31	14,148	-68.4		264	45.5
125----	31	15,228	-73.0		271	40.4
100----	31	16,524	-76.4		278	29.1
80-----	31	17,815	-74.5		292	13.6
70-----	31	18,608	-71.0		337	6.0
60-----	31	19,524	-65.4		60	9.1
50-----	31	20,648	-60.5		77	12.4
40-----	31	22,054	-55.9		92	17.7
30-----	31	23,905	-51.5		98	21.6
25-----	29	25,096	-49.3		93	22.7
20-----	24	26,558	-46.6		94	25.6
15-----	12	28,492	-43.3			
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See reference note at end of table

RAWINSONDE DATA

Average monthly values

MAY 1962

SANTA MONICA, CALIF. (1011 MB.)

Standard pressure surface (mb.)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind	
					Direction	Speed
SURFACE	31	38	13.1	81	359	1.2
1,000	31	130	13.0	79	36	1.0
950	31	562	12.1	71	102	1.7
900	31	1,013	11.3	54	339	1.4
850	31	1,490	10.0	45	287	4.3
800	31	1,992	8.0	37	277	7.8
750	31	2,523	5.7	28	273	10.9
700	31	3,084	3.0		271	13.4
650	31	3,677	-.5		268	16.5
600	31	4,315	-4.7		271	19.2
550	31	4,987	-9.5		270	24.9
500	31	5,724	-14.7		268	27.2
450	31	6,506	-20.8		268	30.5
400	31	7,372	-27.6		266	35.0
350	31	8,319	-34.6		264	35.9
300	31	9,377	-42.4		271	41.4
250	31	10,586	-50.8		272	47.6
200	31	12,013	-57.8		270	50.5
175	31	12,851	-59.3		266	51.1
150	31	13,818	-58.8		265	45.9
125	31	14,958	-60.4		263	38.3
100	31	16,341	-62.3		262	28.2
80	31	17,719	-62.3		253	13.4
70	31	18,540	-61.9		237	7.8
60	30	19,499	-60.1		221	3.3
50	30	20,642	-57.7		138	1.6
40	30	22,057	-55.7		102	2.5
30	30	23,899	-53.3		73	2.7
25	28	25,079	-51.2		65	2.3
20	27	26,539	-48.6		75	2.1
15	25	28,441	-45.3		259	1.7
10	14	31,166	-40.8			
7						
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SAULT STE. MARIE, MICH. (990 MB.)

Standard pressure surface (mb.)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind	
					Direction	Speed
SURFACE	31	221	8.3	80	99	1.4
1,000	31	135				
950	31	563	10.7	61	194	2.7
900	31	1,012	9.6	58	221	5.2
850	31	1,485	6.9	58	239	9.7
800	31	1,981	4.2	56	249	11.9
750	31	2,504	1.6	53	260	14.4
700	31	3,059	-.8	45	264	17.7
650	31	3,644	-4.1	44	265	23.1
600	31	4,275	-7.9	44	273	25.1
550	31	4,942	-12.0	41	270	28.8
500	31	5,670	-16.7	41	274	32.8
450	31	6,448	-22.1	33	279	35.6
400	31	7,310	-28.4	32	281	39.8
350	31	8,254	-35.6		281	43.1
300	31	9,309	-43.6		282	49.4
250	31	10,513	-51.6		278	56.9
200	31	11,940	-57.6		278	54.2
175	31	12,781	-58.5		284	41.8
150	31	13,754	-56.9		283	31.1
125	31	14,911	-56.4		277	25.8
100	31	16,325	-57.2		286	20.2
80	31	17,733	-58.1		294	13.4
70	31	18,580	-57.8		307	10.1
60	30	19,545	-56.8		333	6.4
50	30	20,703	-55.7		5	5.2
40	30	22,129	-54.4		36	6.0
30	29	23,983	-52.6		41	5.2
25	27	25,163	-51.6		56	6.6
20	27	26,618	-49.5		62	7.8
15	27	28,513	-47.0		64	6.8
10	26	31,229	-41.8		51	6.0
7	24	33,680	-36.0		41	4.7
5	20	35,992	-32.2			

SEATTLE, WASH. (1003 MB.)

Standard pressure surface (mb.)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind	
					Direction	Speed
SURFACE	31	125	7.5	88	171	3.9
1,000	31	148			173	4.9
950	31	567	5.6	83	215	6.6
900	31	1,010	3.3	82	224	5.6
850	31	1,472	.6	82	230	5.6
800	31	1,956	-2.2	81	254	5.8
750	31	2,466	-4.8	70	279	6.0
700	31	3,007	-7.6	63	264	8.4
650	31	3,578	-10.6	53	256	11.7
600	31	4,193	-14.0	43	251	14.0
550	31	4,845	-18.1	38	253	15.9
500	31	5,554	-22.7	39	252	19.4
450	31	6,313	-27.8		257	22.7
400	31	7,156	-33.8		257	26.6
350	31	8,079	-40.6		259	29.1
300	31	9,111	-48.2		257	33.2
250	31	10,294	-54.0		266	33.6
200	31	11,723	-53.8		268	27.6
175	31	12,584	-52.7		263	22.7
150	31	13,579	-52.9		262	20.0
125	31	14,752	-53.7		258	18.1
100	30	16,189	-53.3		250	14.2
80	30	17,624	-53.9		241	10.7
70	30	18,484	-53.8		235	8.7
60	29	19,473	-53.5		233	6.0
50	29	20,647	-53.4		202	3.1
40	29	22,084	-53.2		130	1.2
30	26	23,947	-52.2		113	1.7
25	26	25,130	-51.1		83	2.1
20	22	26,586	-49.3		68	3.9
15	12	28,541	-45.2			
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SHEMYA, ALASKA (1008 MB.)

Standard pressure surface (mb.)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind	
					Direction	Speed
SURFACE	31	38	3.6	93	246	2.1
1,000	31	105			198	2.7
950	31	519	2.0	83	221	5.6
900	31	956	.7	75	243	6.2
850	31	1,415	-.2	60	248	4.1
800	31	1,899	-1.8	51	262	4.7
750	31	2,408	-3.8	47	258	8.2
700	31	2,953	-6.1	51	265	8.7
650	31	3,521	-9.7	50	266	8.0
600	31	4,143	-13.4	52	260	9.1
550	31	4,796	-17.3	51	274	8.4
500	31	5,509	-22.2	46	270	10.5
450	31	6,270	-27.7	43	273	11.7
400	31.	7,111	-34.0		274	11.3
350	31	8,033	-40.8		269	13.6
300	31	9,065	-48.0		277	14.8
250	31	10,250	-53.5		264	18.5
200	31	11,681	-53.8		266	21.0
175	31	12,540	-53.4		262	18.5
150	31	13,532	-53.0		264	16.5
125	31	14,706	-53.2		256	12.6
100	31	16,144	-52.8		252	10.3
80	30	17,585	-52.8		237	6.6
70	30	18,451	-52.3		222	3.7
60	30	19,445	-51.7		172	2.5
50	29	20,630	-51.3		156	2.9
40	29	22,079	-51.0		124	3.7
30	28	23,955	-50.7		106	6.2
25	27	25,145	-50.2		102	7.0
20	26	26,602	-49.4		98	7.2
15	9	28,508	-47.7			
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SHREVEPORT, LA. (1008 MB.)

Standard pressure surface (mb.)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind	
					Direction	Speed
SURFACE	31	79	18.8	92	158	6.0
1,000	31	151	19.4	86	174	8.7
950	31	596	19.4	67	200	16.3
900	31	1,058	17.8	50	199	16.9
850	31	1,546	15.7	40	198	15.7
800	31	2,058	12.7	35	195	13.4
750	31	2,595	9.6	30	199	13.0
700	31	3,165	5.8	30	208	10.5
650	31	3,765	1.7	32	221	8.5
600	30	4,407	-2.8	37	227	8.0
550	30	5,087	-7.4	35	251	8.0
500	30	5,827	-12.6		270	6.8
450	30	6,618	-18.1		263	13.8
400	30	7,494	-24.4		268	15.9
350	30	8,452	-31.6		267	18.1
300	30	9,525	-39.8		269	21.2
250	30	10,745	-49.4		275	26.0
200	30	12,173	-58.6		272	33.6
175	30	13,006	-61.6		274	38.1
150	30	13,959	-62.1		272	34.6
125	30	15,081	-64.0		274	27.8
100	30	16,439	-66.8		268	18.5
80	29	17,790	-67.6		281	6.8
70	29	18,606	-66.4		264	1.4
60	28	19,533	-63.4		102	2.5
50	28	20,662	-59.9		85	4.5
40	27	22,071	-55.7		76	7.2
30	27	23,919	-51.9		87	7.0
25	26	25,109	-49.8		91	7.0
20	23	26,585	-47.1		84	6.4
15	23	28,505	-43.5		94	5.4
10	19	31,273	-39.6		75	5.8
7	17	33,728	-35.3		149	2.7
5	12	36,075	-32.3			

SPOKANE, WASH. (930 MB.)

Standard pressure surface (mb.)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind	
					Direction	Speed
SURFACE	31	722	6.2	83	179	4.5
1,000	31	122				
950	31	547				
900	31	994	7.1	70	210	7.8
850	31	1,463	5.2	64	227	6.6
800	31	1,955	1.8	68	229	6.0
750	31	2,468	-1.9	71	223	6.4
700	31	3,018	-5.3	67	233	8.0
650	31	3,592	-8.7	63	234	12.4
600	31	4,214	-12.1	57	237	15.0
550	31	4,865	-16.2	55	237	18.3
500	31	5,585	-20.9	52	237	20.0
450	31	6,346	-26.3	51	237	24.9
400	31	7,197	-32.6	48	238	28.0
350	31	8,124	-39.9		236	30.7
300	31	9,159	-47.8		237	35.0
250	31	10,342	-54.3		243	33.2
200	31	11,768	-54.3		249	28.2
175	31	12,629	-52.2		247	23.3
150	31	13,627	-52.4		244	19.6
125	31	14,805	-52.7		243	19.2
100	31	16,245	-53.1		233	17.7
80	31	17,684	-53.4		238	12.2
70	31	18,544	-54.3		242	9.3
60	31	19,529	-54.1		237	5.2
50	31	20,702	-53.1		218	3.7
40	31	22,143	-52.2		92	1.0
30	31	24,006	-51.3		88	4.5
25	31	25,194	-50.1		80	5.1
20	30	26,657	-48.4		61	5.8
15	27	28,553	-45.6		70	7.2
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SWAN ISLAND, W. I. (1013 MB.)

Standard pressure surface (mb.)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind	
					Direction	Speed
SURFACE	31	10	25.9	78	66	7.0
1,000	31	120	25.2	78	63	9.7
950	31	568	22.0	78	75	12.4
900	31	1,038	18.9	73	83	12.6
850	31	1,528	16.2	63	81	9.9
800	31	2,041	13.2	58	78	7.4
750	31	2,579	10.6	48	85	4.7
700	31	3,156	8.6	36	115	2.1
650	31	3,759	5.8	31	198	1.7
600	31	4,417	2.3	29	208	1.4
550	31	5,109	-1.5		274	2.7
500	31	5,869	-5.9		286	3.9
450	31	6,676	-11.3		278	6.6
400	31	7,580	-17.4		275	12.4
350	31	8,567	-24.2		264	19.2
300	31	9,673	-32.5		257	27.4
250	31	10,931	-42.6		252	32.6
200	30	12,397	-54.8		251	34.8
175	30	13,238	-61.4		257	33.8
150	30	14,179	-67.5		257	32.1
125	30	15,262	-72.8		268	24.7
100	27	16,557	-76.9		277	15.2
80	24	17,827	-76.8		24	2.9
70	22	18,607	-73.5		72	6.8
60	22	19,518	-67.2		75	12.6
50	22	20,632	-62.2		81	14.4
40	22	22,031	-56.1		84	21.2
30	21	23,882	-51.6		92	28.6
25	18	25,069	-48.9		93	29.7
20	12	26,522	-46.6			
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TAMPA, FLA. (1018 MB.)

Standard pressure surface (mb.)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind	
					Direction	Speed
SURFACE	31	8	20.6	90	35	3.1
1,000	31	163	21.7	78	51	4.3
950	31	606	20.7	60	42	4.9
900	31	1,075	17.9	62	45	6.0
850	31	1,562	15.0	61	45	7.4
800	31	2,073	11.8	57	51	7.8
750	31	2,609	8.6	49	53	6.8
700	31	3,178	5.2	42	46	5.8
650	31	3,778	1.4	43	40	6.4
600	31	4,419	-2.3	38	29	5.8
550	31	5,100	-6.4	31	5	6.4
500	31	5,844	-11.2	30	331	7.6
450	31	6,640	-16.8	28	314	9.1
400	31	7,520	-22.8		306	12.2
350	31	8,485	-29.9		301	13.4
300	31	9,564	-38.0		294	18.5
250	31	10,795	-47.0		284	26.2
200	30	12,241	-56.6		283	34.4
175	30	13,079	-60.7		283	34.8
150	30	14,031	-62.8		285	33.0
125	30	15,147	-65.9		290	28.4
100	30	16,490	-69.1		296	18.8
80	29	17,821	-69.0		329	10.9
70	29	18,640	-66.6		12	7.8
60	29	19,564	-63.0		62	6.8
50	29	20,697	-59.0		82	8.7
40	29	22,111	-54.7		84	11.9
30	29	23,974	-50.1		86	13.2
25	28	25,168	-48.3		86	13.4
20	26	26,647	-44.9		79	13.0
15	8	28,581	-41.2			
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TATOOSH IS., WASH. (1014 MB.)

Standard pressure surface (mb.)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind	
					Direction	Speed
SURFACE	31	31	8.6	87	229	3.7
1,000	31	148	8.0	85	239	4.9
950	31	564	5.4	83	255	6.6
900	31	1,010	3.0	80	255	6.6
850	31	1,471	.5	77	258	4.3
800	31	1,955	-2.6	71	257	4.1
750	31	2,459	-5.4	58	251	6.0
700	31	3,003	-8.1	46	257	8.2
650	31	3,567	-11.4	38	257	9.9
600	31	4,185	-14.7	35	262	13.0
550	31	4,833	-18.6	34	262	16.1
500	31	5,543	-23.1		259	19.6
450	31	6,295	-28.5		263	22.5
400	31	7,141	-34.4		263	27.0
350	31	8,062	-40.9		266	30.1
300	31	9,094	-47.9		266	34.0
250	31	10,280	-53.0		266	34.4
200	31	11,719	-52.6		273	28.2
175	31	12,582	-52.1		270	21.0
150	31	13,580	-52.1		265	20.4
125	31	14,758	-52.6		261	15.2
100	31	16,198	-52.8		251	12.4
80	31	17,636	-52.9		237	10.3
70	31	18,495	-52.7		238	8.0
60	31	19,492	-52.8		238	5.1
50	31	20,669	-52.4		228	2.5
40	30	22,110	-52.1		135	2.1
30	30	23,974	-51.3		100	2.9
25	30	25,161	-50.1		88	4.7
20	29	26,626	-48.3		78	5.8
15	28	28,527	-45.4		84	7.8
10	26	31,260	-39.6		83	6.6
7	21	33,723	-33.8		85	9.9
5	9	36,041	-28.5			

TOPEKA, KANS. (981 MB.)

Standard pressure surface (mb.)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind	
					Direction	Speed
SURFACE	31	269	17.0	81	163	6.4
1,000	31	100				
950	31	539	19.0	62	187	13.8
900	31	1,006	17.9	56	216	20.0
850	31	1,494	16.1	50	233	22.0
800	31	2,006	12.9	46	235	21.4
750	31	2,540	9.2	45	244	17.3
700	31	3,113	4.8	39	241	17.9
650	31	3,707	.6	36	247	16.5
600	31	4,350	-4.5	36	248	19.2
550	31	5,021	-9.6	34	251	21.0
500	31	5,758	-14.6		246	19.8
450	31	6,538	-20.2		247	22.9
400	31	7,410	-26.4		250	25.1
350	31	8,362	-33.6		249	28.2
300	31	9,425	-41.9		250	29.3
250	31	10,636	-50.8		254	33.8
200	31	12,061	-59.3		256	37.3
175	31	12,891	-62.1		254	37.9
150	31	13,849	-60.2		260	36.7
125	30	14,994	-59.5		261	27.4
100	30	16,386	-61.6		261	20.0
80	30	17,762	-63.4		254	13.0
70	30	18,593	-62.5		259	8.9
60	29	19,540	-60.0		259	3.3
50	29	20,682	-58.0		77	1.0
40	28	22,090	-55.8		84	2.5
30	27	23,934	-53.0		63	2.1
25	25	25,110	-51.1		48	2.1
20	19	26,568	-48.9		80	1.0
15	10	28,471	-45.0			
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TRUK, CAROLINE IS. (1009 MB.)

Standard pressure surface (mb.)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind	
					Direction	Speed
SURFACE	31	2	27.3	83	51	4.7
1,000	31	84	27.0	83	60	6.8
950	31	535	24.3	83	93	15.9
900	31	1,011	21.4	83	97	17.3
850	31	1,507	18.6	81	99	17.1
800	31	2,027	16.0	80	99	16.1
750	31	2,576	13.4	75	99	15.2
700	31	3,155	10.4	74	101	12.4
650	31	3,768	6.9	71	102	12.4
600	31	4,425	3.3	69	105	10.7
550	31	5,126	-.6	70	105	8.5
500	31	5,885	-4.8	67	107	6.4
450	31	6,703	-9.5	65	99	5.2
400	31	7,611	-14.7	62	84	5.6
350	31	8,609	-21.5	53	68	3.1
300	31	9,726	-30.0	47	131	2.3
250	31	10,996	-40.4		172	3.9
200	31	12,476	-53.0		191	4.5
175	31	13,323	-60.2		186	3.7
150	30	14,266	-68.0		238	4.5
125	29	15,341	-75.3		270	5.1
100	24	16,615	-79.9		291	3.7
80	22	17,878	-78.6		309	2.3
70	20	18,647	-73.9		271	2.1
60	20	19,560	-68.7		292	5.2
50	20	20,665	-64.2		19	4.1
40	19	22,043	-60.2		96	14.6
30	19	23,857	-55.6		98	36.3
25	19	25,025	-51.7		96	48.6
20	19	26,480	-49.2		99	56.7
15	18	28,387	-44.9		99	58.3
10	15	31,130	-39.9		97	69.6
7	9	33,584	-36.8			
5	5	35,976	-32.6			

TUCSON, ARIZ. (923 MB.)

Standard pressure surface (mb.)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind	
					Direction	Speed
SURFACE	31	789	14.7	30	154	5.8
1,000	31	98				
950	31	535				
900	31	1,003	18.9	26	187	4.7
850	31	1,491	16.3	26	208	5.2
800	31	2,003	12.7	28	217	8.5
750	31	2,537	8.9	28	229	11.7
700	31	3,108	5.2	26	225	16.7
650	31	3,704	1.3	26	223	22.3
600	31	4,348	-3.0		229	22.9
550	31	5,023	-7.6		235	26.0
500	31	5,767	-12.7		242	30.1
450	31	6,553	-18.4		249	31.3
400	31	7,431	-24.9		256	35.4
350	31	8,387	-32.2		254	40.8
300	31	9,456	-40.3		255	46.2
250	31	10,674	-49.1		257	51.7
200	31	12,108	-57.4		263	55.2
175	31	12,947	-59.6		262	56.7
150	30	13,908	-59.4		261	50.3
125	30	15,042	-62.1		255	40.2
100	30	16,414	-64.2		249	25.6
80	29	17,777	-64.6		248	12.2
70	28	18,602	-63.2		222	4.7
60	28	19,551	-60.2		159	4.3
50	26	20,696	-57.2		98	5.6
40	25	22,115	-54.5		89	6.4
30	24	23,972	-51.0		74	9.5
25	24	25,166	-48.4		90	9.9
20	24	26,644	-45.6		89	5.2
15	23	28,571	-42.2		74	5.8
10	21	31,350	-36.1		76	3.3
7	15	33,803	-30.9		253	8.2
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WAKE IS., PACIFIC AREA (1015 MB.)

Standard pressure surface (mb.)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind	
					Direction	Speed
SURFACE	31	5	25.7	80	68	11.5
1,000	31	139	24.7	80	71	14.8
950	31	586	21.4	80	79	16.3
900	31	1,056	18.0	79	84	15.3
850	31	1,544	15.3	72	88	14.4
800	31	2,058	13.5	53	86	11.9
750	31	2,599	11.6	39	83	11.1
700	31	3,175	9.1	26	76	10.3
650	31	3,781	5.6	24	74	10.3
600	31	4,435	2.0		65	10.1
550	31	5,128	-1.9		60	8.4
500	31	5,884	-6.4		58	7.0
450	30	6,694	-11.9		53	6.0
400	30	7,591	-18.6		30	6.4
350	30	8,573	-25.7		11	7.4
300	30	9,670	-34.3		340	8.7
250	30	10,922	-43.5		305	14.4
200	30	12,387	-54.6		299	21.2
175	30	13,230	-60.4		297	22.9
150	29	14,176	-66.1		288	24.1
125	29	15,265	-72.0		293	21.0
100	28	16,565	-75.9		309	14.6
80	26	17,850	-75.5		1	8.2
70	26	18,628	-72.2		46	8.7
60	25	19,546	-66.8		76	10.7
50	25	20,663	-61.5		83	12.4
40	25	22,063	-56.8		82	18.3
30	25	23,901	-52.9		85	22.5
25	25	25,084	-49.8		85	26.2
20	25	26,552	-47.0		84	29.1
15	25	28,468	-44.0		86	31.1
10	23	31,214	-39.8		86	36.7
7	18	33,674	-36.6		87	38.1
5	7	36,013	-33.9			

WASHINGTON, D. C. (1009 MB.)

Standard pressure surface (mb.)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind	
					Direction	Speed
SURFACE	31	84	13.4	89		0.0
1,000	31	158	14.6	83	6	.6
950	31	596	15.0	68	317	3.1
900	31	1,052	13.5	64	301	7.2
850	31	1,532	11.0	66	298	10.9
800	31	2,035	8.2	68	295	13.8
750	31	2,566	5.6	59	299	16.7
700	31	3,128	2.3	53	299	18.7
650	31	3,722	-1.0	47	294	19.0
600	31	4,359	-4.8	43	293	19.2
550	31	5,034	-9.0	39	297	21.6
500	31	5,771	-13.7	34	294	23.3
450	31	6,561	-19.3		295	23.9
400	31	7,432	-25.3		297	24.5
350	31	8,388	-32.6		292	27.6
300	31	9,455	-41.3		292	30.7
250	31	10,669	-50.7		296	32.4
200	31	12,091	-59.7		302	35.6
175	31	12,919	-62.5		305	35.0
150	31	13,873	-61.9		297	27.8
125	31	15,003	-61.2		300	23.7
100	30	16,384	-61.7		302	19.8
80	28	17,769	-61.9		312	11.3
70	28	18,611	-61.1		325	8.5
60	28	19,558	-59.1		335	6.6
50	28	20,706	-57.2		9	6.0
40	26	22,125	-54.3		12	4.5
30	24	23,986	-51.4		9	3.7
25	24	25,174	-50.0		333	2.9
20	21	26,633	-48.2		355	2.1
15	16	28,511	-45.4		270	4.3
10	7	31,173	-41.0			
7						
5						

WINNEMUCCA, NEV. (867 MB.)

Standard pressure surface (mb.)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind	
					Direction	Speed
SURFACE	31	1,310	6.7	70	264	1.2
1,000	31	117				
950	31	547				
900	31	1,001				
850	30	1,474	8.3	59	265	3.5
800	30	1,972	5.3	58	290	6.4
750	30	2,493	1.8	60	282	7.2
700	30	3,051	-2.1	62	258	8.0
650	29	3,624	-6.2	64	249	10.9
600	29	4,253	-10.4	62	243	16.1
550	29	4,910	-14.3	47	242	16.7
500	29	5,635	-19.4	41	245	15.9
450	29	6,398	-25.1	39	246	19.8
400	29	7,255	-31.3	41	244	19.4
350	29	8,186	-38.8		243	23.1
300	29	9,226	-46.8		249	27.8
250	29	10,417	-52.7		251	30.7
200	29	11,845	-56.4		259	32.3
175	29	12,692	-56.2		258	30.1
150	28	13,671	-54.9		256	27.2
125	28	14,837	-55.5		248	21.2
100	28	16,257	-56.4		244	17.3
80	28	17,671	-56.7		230	11.5
70	28	18,517	-57.1		228	8.0
60	28	19,493	-56.9		203	3.9
50	28	20,649	-56.0		140	1.4
40	25	22,073	-54.5		79	1.4
30	23	23,921	-53.0		104	1.7
25	17	25,102	-51.6		59	1.9
20	10	26,576	-48.8			
15						
10						
7						
5						

See reference note at end of table

RAWINSONDE DATA

Average monthly values

Standard pressure surface (mb.)	WINSLOW, ARIZ. (850 MB.)						YAKUTAT, ALASKA (1016 MB.)						YAP, CAROLINE IS. (1007 MB.)						YUCCA FLAT, NEV. (878 MB.)						YUMA, ARIZ. (995 MB.)					
	Number of observations	Dynamic height	Temperature	Relative humidity	Wind		Number of observations	Dynamic height	Temperature	Relative humidity	Wind		Number of observations	Dynamic height	Temperature	Relative humidity	Wind		Number of observations	Dynamic height	Temperature	Relative humidity	Wind		Number of observations	Dynamic height	Temperature	Relative humidity	Wind	
					Direction	Speed					Direction	Speed					Direction	Speed					Direction	Speed					Direction	Speed
SURFACE	31	1,492	7.6	38	200	3.9	31	12	3.3	94	86	2.1	28	17	26.8	90	64	6.0	31	1,196	7.0	43	236	3.1	31	131	17.2	32	309	1.2
1,000--	31	127					31	139	3.8	88	120	3.1	28	83	26.5	89	69	7.6	31	106					31	82				
950----	31	556					31	554	1.9	83	130	2.7	28	525	23.6	87	87	13.8	31	534					31	519	20.0	27	277	8.5
900----	31	1,014					31	989	- .8	77	134	3.3	28	1,008	20.7	85	94	15.9	31	988					31	987	17.8	26	274	9.5
850----	31	1,495			209	3.3	31	1,444	- 3.2	70	155	3.1	28	1,501	18.2	81	94	15.5	31	1,466	12.5	34	215	4.7	31	1,473	14.9	25	253	8.0
800----	31	1,998	11.6	28	236	7.4	31	1,922	- 5.9	68	183	3.7	28	2,020	15.8	73	95	12.4	31	1,972	9.4	35	210	9.5	31	1,982	11.5	26	226	8.4
750----	31	2,534	7.8	32	234	13.2	31	2,424	- 8.7	64	175	3.7	28	2,555	12.9	71	100	12.8	31	2,500	5.9	35	217	7.8	31	2,520	8.1	22	215	9.7
700----	31	3,099	3.7	32	225	18.1	31	2,958	-11.6	63	209	2.9	28	3,144	9.9	70	93	14.4	31	3,064	1.8	38	215	9.3	31	3,083	4.3	21	223	11.9
650----	31	3,692	- .3	32	226	19.6	31	3,518	-14.6	58	232	3.9	28	3,746	6.7	67	90	15.0	31	3,651	- 2.5	40	218	10.7	31	3,678	.7	18	237	14.6
600----	31	4,332	- 4.8	30	227	22.7	31	4,125	-18.3	53	236	4.9	28	4,411	3.0	66	84	13.6	31	4,286	- 6.9	38	232	13.0	31	4,319	- 3.4	18	245	18.8
550----	31	5,005	- 9.9		235	24.7	31	4,766	-22.6	50	242	4.5	28	5,102	- .9	66	81	14.4	31	4,951	-11.6	35	245	16.1	31	4,997	- 8.2	19	243	21.8
500----	31	5,739	-15.2	30	238	25.6	31	5,462	-27.2	50	260	5.1	28	5,867	- 5.1	60	82	13.8	31	5,682	-17.0		249	19.0	31	4,733	-13.6	21	247	24.5
450----	31	6,525	-21.0		237	29.9	31	6,207	-32.4	49	266	6.0	28	6,686	- 9.6	59	78	11.3	31	6,456	-23.0	33	253	20.6	31	6,525	-19.6	23	249	29.3
400----	31	7,387	-27.5		242	30.9	31	7,036	-38.1	45	267	5.1	27	7,590	-15.3	48	76	8.2	31	7,317	-29.3	32	244	22.7	31	7,389	-26.2	24	252	34.6
350----	31	8,334	-34.7		245	36.1	31	7,944	-44.0		282	7.6	26	8,584	-22.2	38	79	6.8	31	8,256	-36.6		257	23.5	31	8,340	-33.4	22	249	44.5
300----	31	9,392	-42.6		249	44.1	31	8,965	-49.7		287	11.3	25	9,699	-30.5		94	4.5	31	9,307	-44.1		248	31.3	31	9,403	-41.3		251	51.1
250----	31	10,600	-50.6		255	47.0	31	10,148	-53.0		287	15.2	24	10,968	-40.7		141	6.2	31	10,511	-51.1		255	38.9	31	10,618	-49.8		252	54.2
200----	31	12,027	-57.9		257	47.8	31	11,595	-50.4		282	13.8	24	12,445	-53.4		145	6.8	31	11,942	-56.6		256	42.0	31	12,048	-57.7		254	56.0
175----	31	12,867	-58.6		258	47.0	31	12,469	-49.4		291	12.4	22	13,289	-60.6		176	5.4	31	12,786	-57.3		258	40.4	31	12,886	-59.2		256	56.2
150----	31	13,834	-58.5		252	42.7	31	13,478	-49.7		286	10.1	22	14,231	-68.2		200	2.7	31	13,762	-56.9		258	38.3	31	13,851	-59.4		253	52.8
125----	31	14,976	-59.9		250	36.9	31	14,669	-50.3		291	8.9	22	15,304	-75.6		99	1.9	31	14,917	-57.4		254	30.9	31	14,988	-60.9		251	39.4
100----	31	16,363	-62.1		246	25.8	31	16,125	-50.6		291	7.2	21	16,574	-80.6		63	8.5	31	16,320	-59.4		248	22.7	31	16,367	-63.1		244	29.7
80-----	30	17,737	-63.1		234	15.0	31	17,579	-50.5		301	3.5	14	17,837	-79.1		55	7.0	30	17,716	-59.3		244	12.4	30	17,735	-64.1		231	20.0
70-----	30	18,569	-62.7		235	8.9	31	18,453	-50.4		314	3.3	13	18,608	-75.6		51	6.4	30	18,555	-59.3		232	7.4	30	18,560	-62.9		223	11.7
60-----	30	19,512	-60.3		209	3.1	31	19,455	-50.2		333	1.9	13	19,512	-69.8		52	7.2	30	19,517	-58.5		216	4.5	30	19,510	-61.0		218	5.8
50-----	30	20,655	-58.1		107	1.9	30	20,644	-50.2		73	2.7	12	20,617	-64.1		62	9.5	29	20,669	-56.3		169	2.7	30	20,650	-58.4		134	3.9
40-----	29	22,070	-55.7		123	3.1	29	22,099	-49.9		82	5.4	12	21,996	-59.5		90	11.9	28	22,091	-54.1			.0	30	22,063	-55.5		89	5.4
30-----	27	23,915	-52.6		76	2.9	27	23,990	-49.2		68	7.2	12	23,823	-53.5		96	26.8	25	23,940	-52.1		44	1.9	30	23,910	-52.5		77	7.0
25-----	26	25,098	-50.8		100	3.7	26	25,183	-48.6		81	10.7	11	25,004	-51.3		91	30.7	23	25,131	-50.3		245	1.0	29	25,098	-50.2		74	7.6
20-----	26	26,561	-47.9		104	2.1	20	26,680	-47.0		72	13.0	11	26,463	-48.4				21	26,596	-47.2		267	2.9	28	26,565	-47.6		84	7.6
15-----	19	28,476	-45.4		348	2.3	19	28,601	-44.7		70	20.0	9	28,378	-44.6				8	28,496	-43.3				27	28,475	-44.2		80	2.9
10-----	7	31,220	-42.4				11	31,384	-39.7				6	31,114	-41.3										24	31,225	-38.8		71	6.2
7------																									13	33,696	-35.1			

Note: All observations scheduled at 1200, G.C.T. Pressures shown under station names are the average monthly station pressures for the month of record, corrected to the height of the floors of the instrument shelters used for rawinsonde purposes. "Number of observations" refers to those of dynamic height only. Although the number of temperature observations at any given pressure surface is usually the same as for height, it is possible for temperature to be missing for one or more pressure surfaces of some observations. Relative humidity averages are limited to those observations with temperatures warmer than -40°C. Observations of wind speed and direction are sometimes lost due to limiting angles, i.e., elevation angles less than 6° above the horizon, or any obstruction above the horizon.

The temperature and wind values are based on 15 or more observations at the surface or 5 observations at a standard pressure level for temperature and 10 for wind. Relative humidity data are not published for standard pressure surfaces for which less than 16 observations are available.

Relative humidity data are computed and expressed on the basis of vapor pressure over water. Unless otherwise indicated, they are obtained from lithium chloride hygristors.

These average values for standard pressure surfaces were obtained by rawinsondes; dynamic height (geopotential) in units of .98 dynamic meter, temperature in degrees Celsius, relative humidity in percent, and resultant winds in degrees and knots.

SOLAR RADIATION DATA

Solar radiation intensities, tabulated in langleys per minute on a surface normal to the direction of the sun.

MAY 1962

Sun's zenith distance

ALBUQUERQUE, N. MEX.

Air mass

Date	A M				*	P M			
	78.7°	75.7°	70.7°	60.0°		60.0°	70.7°	75.7°	78.7°
	4.19	3.35	2.51	1.67	*	1.67	2.51	3.35	4.19
May									
1	0.91	1.00	1.14	1.25	1.43	----	1.08	0.95	----
2	.89	1.96	1.08	1.24	1.40	1.22	1.06	.92	0.83
3	.91	1.00	1.12	1.27	1.41	1.23	1.07	.94	.83
4	(.43)	(.75)	(.99)	(1.15)	(1.27)	(.82)	----	----	----
5	.79	.91	1.04	1.20	1.34	(1.12)	----	----	----
6	.79	.89	1.01	1.17	1.35	1.19	1.02	(.89)	(.53)
7	.79	.88	1.00	1.17	1.32	----	----	----	----
8	----	----	----	----	1.24	----	(.85)	(.72)	(.62)
9	.78	.91	1.03	1.16	1.36	----	1.03	.93	.82
10	.87	.96	1.06	1.23	1.40	----	----	----	----
11	.81	.91	1.01	1.17	1.37	----	----	----	----
13	E(.81)	E (.90)	E(1.02)	E(1.17)	1.39	D (1.05)	D (.87)	D (.75)	D(.61)
14	.78	.88	.98	1.15	H(1.32)	H (1.04)	H (.83)	H (.68)	H(.63)
15	----	-----	----	1.17	D(1.32)	D (.95)	D (.83)	D (.74)	D(.66)
16	.85	.95	----	1.18	----	D	D (.87)	D (.82)	D(.75)
17	.83	.91	1.01	1.13	D	D	----	----	----
18	E(.85)	E(.96)	E(1.06)	E(1.22)	1.44	1.23	1.09	.98	.89
19	.95	1.06	1.18	1.33	1.45	----	----	----	----
20	----	----	----	1.24	1.41	D	D	D	.74
21	.87	.97	1.06	1.19	1.40	D	D	D	D
22	E (.87)	E (.99)	E(1.15)	E(1.34)	1.43	1.21	1.08	.97	(.79)
23	.94	1.02	1.12	1.24	1.46	1.13	(.74)	----	----
24	.97	1.06	1.17	1.29	1.45	1.19	.99	.84	.72
25	.92	.99	1.11	1.26	1.43	(1.06)	----	(.75)	(.71)
26	.89	.97	1.07	1.21	1.40	----	----	----	----
27	.90	.97	1.08	1.21	----	----	----	----	----
28					Equipment Inoperative				
29	----	----	----	----	1.45	----	----	.92	.82
30	.96	----	----	----	----	----	----	1.01	.87
31	----	----	----	----	----	1.03	.88	.77	.69
Averages	0.87	0.96	1.07	1.21	1.40	1.18	1.03	0.92	0.80

TUCSON, ARIZ.

Air mass

Date	4.56	3.65	2.74	1.83	*	1.83	2.74	3.65	4.56
May									
1	0.74	0.87	0.99	1.15	----	----	----	----	----
2	.66	.78	.92	1.12	----	----	----	----	----
4	----	----	----	----	----	----	----	0.75	0.66
8	.77	.86	.99	1.17	----	----	----	----	----
9	.75	.86	.98	1.15	----	----	----	----	----
11	.75	.84	.98	1.13	----	----	----	----	----
12	----	----	----	----	----	----	----	.85	.81
13	.61	.72	.87	1.09	----	1.22	1.06	.94	.82
14	.78	.88	1.01	1.19	----	1.20	1.03	.90	.83
15	.82	.92	1.07	1.21	----	----	----	.90	.80
16	.79	.89	1.04	1.20	----	1.26	1.10	.98	.89
17	.83	.92	1.05	1.23	----	----	----	.86	.80
18	.87	.98	1.10	1.27	----	----	----	----	.83
19	.95	1.06	1.16	1.30	----	----	----	----	----
20	.86	.96	1.09	1.24	----	----	----	----	----
21	.89	.99	1.12	1.27	----	----	----	----	----
22	.84	.94	1.07	----	----	1.24	1.07	.95	.85
23	.86	.98	1.10	1.26	----	----	1.10	.98	.88
24	.89	1.00	1.13	1.28	----	----	1.20	.95	.85
25	.89	.99	1.12	1.26	----	1.19	1.01	.91	.81
26	.92	1.02	1.12	1.25	----	----	----	----	----
27	----	----	1.06	1.20	----	----	.97	.84	----
28	----	----	----	1.17	----	----	1.05	.93	.83
29	.85	.92	1.06	1.18	----	1.14	1.00	.89	.75
30	----	----	----	----	----	1.29	1.14	1.00	.85
31	.92	1.00	1.11	1.25	----	----	1.06	.90	.81
Averages	0.82	0.92	1.05	1.15	----	1.22	1.07	0.91	0.82

HILO, HAWAII

Air mass

Date					*				
May									
4	0.76	0.83	----	----	----	----	----	----	----
6	----	.93	0.99	----	----	----	----	----	----
8	.71	.81	.96	----	1.32	----	----	----	----
13		----	.86	----	----	----	----	----	----
24	.74	----	----	----	----	----	----	----	----
29	.80	----	----	----	----	----	----	----	----
30	----	----	----	----	1.32	----	----	----	----
Averages	0.75	0.86	0.94	----	1.32	----	----	----	----

Sun's zenith distance

BLUE HILL OBS., MASS.

Air mass

Date	A. M.				*	P. M.			
	78.7°	75.7°	70.7°	60.0°		60.0°	70.7°	75.7°	78.7°
	4.89	3.92	2.94	1.96	*	1.96	2.94	3.92	4.89
May									
6	0.62	0.76	0.90	1.10	----	----	----	----	----
7	----	----	----	----	1.50	1.24	1.07	0.93	0.83
9	.94	1.06	1.20	1.41	1.64	----	----	----	----
10	----	----	----	----	1.49	----	----	----	----
11	----	----	----	----	1.49	1.15	.94	.81	.71
12	.86	.94	1.08	1.25	1.49	1.22	1.07	.90	.79
13	.90	1.00	1.12	1.27	1.47	----	----	----	----
21	----	----	----	----	----	1.01	.90	.81	.71
22	.79	.89	1.04	1.21	1.46	1.17	.98	.86	.76
23	.79	.90	1.03	1.22	1.42	1.06	.78	.64	.47
25	.58	.88	----	----	----	----	.99	.82	.71
27	----	----	----	----	1.50	1.25	1.07	.95	.84
29	.93	1.05	1.21	1.32	----	----	----	----	----
Averages	0.80	0.94	1.08	1.25	1.50	1.16	0.98	0.84	0.73

OMAHA, NEBR.

Air mass

Date	4.78	3.82	2.87	1.91	*	1.91	2.87	3.82	4.78
May									
2	M 0.45	M 0.56	M 0.74	M 0.88	M 1.07	M 0.79	----	----	----
3	----	.51	.70	.90	1.11	----	----	----	----
4	.42	.54	.67	.88	----	----	----	----	----
6	----	----	.64	.86	----	.83	0.64	----	----
15	----	HI .12	HI .25	HI .48	----	----	----	----	----
19	M .43	S .56	S .78	.98	S 1.16	.89	S .73	S 0.57	S 0.46
21	----	----	----	----	----	.51	.21	----	----
23	S .56	S .69	----	----	----	----	----	----	----
24	----	S .69	.77	----	----	----	----	----	----
30	S .51	S .59	S .83	S 1.02	HS 1.17	----	----	----	----
31	S .48	S .58	S .74	----	HS 1.18	----	----	----	----
Averages	0.48	0.54	0.68	0.86	1.14	0.76	0.53	0.57	0.46

MAUNA LOA OBS., HAWAII

Air mass

Date	3.36	2.69	2.01	1.34	*	1.34	2.01	2.69	3.36
May									
1	1.20	1.28	1.37	1.49	1.60	----	----	----	----
2	1.15	1.23	1.33	1.45	----	----	----	----	----
3	1.12	1.23	1.34	1.45	----	----	----	----	----
4	1.14	1.23	1.34	1.46	1.62	1.45	1.34	1.22	1.15
5	1.26	1.37	1.44	1.54	1.63	----	----	----	----
6	1.22	1.30	1.40	1.51	----	----	----	----	----
8	1.14	1.22	1.32	1.44	----	----	----	----	----
9	----	----	1.32	----	----	----	----	----	----
10	1.13	1.22	1.31	----	----	----	----	----	----
11	1.15	1.22	1.32	1.43	----	----	----	----	----
13	----	----	1.31	1.43	----	----	----	----	----
14	1.15	1.23	1.33	1.43	----	----	----	----	----
15	1.12	1.21	1.31	1.43	----	----	----	----	----
16	1.15	1.23	1.33	1.43	----	----	----	----	----
17	1.12	1.21	1.31	1.43	----	----	----	----	----
18	----	----	----	1.42	----	----	----	----	----
19	1.14	1.22	----	----	----	----	----	----	----
20	1.10	1.20	1.29	1.41	----	----	----	----	----
21	1.16	1.25	1.33	1.44	----	----	----	----	----
22	1.15	1.24	1.33	1.44	----	1.43	1.31	1.22	1.13
23	1.18	1.27	1.36	1.48	1.60	1.45	1.35	1.25	1.17
24	1.20	1.29	1.38	1.48	1.57	----	1.31	1.22	1.14
25	1.19	1.28	1.37	1.49	1.59	----	----	1.24	1.16
26	1.24	1.33	1.42	1.52	----	----	----	----	----
28	----	1.27	1.38	1.47	1.59	----	1.33	1.23	1.15
29	1.23	1.31	1.40	1.50	----	----	----	----	----
30	1.20	1.30	1.39	1.50	----	----	----	----	----
Averages	1.17	1.26	1.35	1.46	1.60	1.44	1.33	1.23	1.15

GUAM, M. I.

Air mass

Date	4.92	3.93	2.95	1.97	*	1.97	2.95	3.93	4.92
	No Observations due to Cloudiness								

( )	Clouds present	H	Haze
*	Values corresponding to true solar noon.	S	Slight haze - indeterminable
D	Dust	M	Moderate haze - indeterminable
E	Interpolated	I	Intense haze - indeterminable

Langley is the unit used to denote one gram calorie per square centimeter. An explanation of the formula used in computing the air mass values for each station listed above appears in the February 1957 issue, Vol. 8, No. 2, page 63, of this publication.

SOLAR RADIATION DATA

Daily totals and weekly averages of solar radiation (direct and diffuse) received on a horizontal surface, tabulated in langleys.

1962	Albuquerque, N.Mex.	Annette Alaska	Apalachicola, Fla.	Astoria, Oreg.	Barrow, Alaska	Bethel, Alaska	Bismarck, N. Dak.	Blue Hill Obs.,Mass.	Boise, Idaho	Boston, Mass.	Brownsville, Tex.	Canton Island, Pacific Area	Caribou, Maine
May 7----	713	683	698	--	605	266	589	704	682	688	142	629	280
May 8----	708	644	671	390	700	249	216	296	451	325	653	620	727
May 9----	757	545	690	357	678	503	395	819	669	759	641	614	317
May 10----	721	237	676	615	---	169	607	810	717	748	691	625	349
May 11----	672	610	544	473	608	328	75	---	523	689	628	246	279
May 12----	660	509	596	514	636	464	336	783	658	739	(637)	---	407
May 13----	796	390	710	370	574	256	105	763	749	721	699	---	714
Average------	718	517	655	453	633	319	332	696	636	667	(584)	547	439
May 14----	798	690	614	431	567	177	288	68	695	63	677	---	132
May 15----	789	456	661	342	602	425	458	153	348	128	602	---	92
May 16----	737	318	587	614	501	318	438	196	583	199	601	---	413
May 17----	766	607	667	545	743	441	384	602	680	542	617	---	265
May 18----	826	732	564	495	643	233	190	591	264	594	725	---	575
May 19----	821	733	676	527	---	412	540	603	234	548	658	---	676
May 20----	790	540	612	284	683	160	282	699	156	661	739	---	271
Average------	789	582	626	463	623	309	369	416	423	391	660	---	346
May 21----	835	175	638	494	531	238	159	491	590	479	695	---	418
May 22----	846	663	665	227	478	267	244	768	761	732	698	---	756
May 23----	825	737	669	351	649	268	(566)	751	159	739	692	---	736
May 24----	---	715	673	228	-	370	711	254	317	268	664	---	117
May 25----	853	726	684	243	482	202	479	705	593	655	677	---	266
May 26----	805	298	681	348	450	212	286	572	(638)	541	670	--	307
May 27----	723	457	669	216	549	568	358	765	(714)	764	633	---	630
Average------	814	539	668	301	523	304	(401)	615	(539)	597	675	---	461
May 28----	---	682	641	302	455	635	212	751	550	756	596	---	685
May 29----	884	421	674	592	549	656	248	785	769	740	444	---	646
May 30----	751	202	685	629	757	745	199	578	745	638	685	---	261
May 31----	---	506	696	562	575	457	592	653	723	602	---	---	429
June 1----	812	685	710	622	510	132	686	687	756	668	---	---	108
June 2----	704	744	725	425	464	174	757	784	710	722	368	---	210
June 3----	668	497	722	498	494	165	390	794	551	766	575	---	(253)
Average------	764	534	693	519	543	424	441	719	686	699	534	---	(370)

1962	Charleston, S. C.	Cleveland, Ohio	Columbia, Mo.	Corvallis, Oreg.	Davis, Calif.	Dodge City, Kans.	East Lansing, Mich.	El Paso, Tex.	Ely, Nev.	Fairbanks, Alaska	Fort Worth, Tex.	Flaming Gorge, Utah
May 7----	662	616	636	573	656	491	486	728	605	214	703	561
May 8----	679	256	357	378	730	497	136	720	781	206	540	694
May 9----	615	630	440	392	722	527	740	740	715	297	687	621
May 10----	282	287	644	531	751	540	423	737	569	486	712	539
May 11----	658	554	633	634	666	569	677	741	766	385	626	443
May 12----	669	248	669	731	676	515	188	613	489	420	662	610
May 13----	586	529	676	644	515	516	349	792	337	456	699	395
Average------	593	446	580	555	674	522	428	724	609	352	661	552
May 14----	483	632	662	663	385	---	615	792	157	---	538	597
May 15----	635	526	681	307	699	301	639	759	205	425	573	429
May 16----	622	602	666	636	731	---	647	792	393	522	407	587
May 17----	567	605	488	449	748	470	664	800	708	650	646	568
May 18----	651	604	655	583	685	649	625	813	596	354	546	---
May 19----	624	445	578	665	645	750	556	768	813	606	657	779
May 20----	651	533	652	400	780	421	726	756	336	449	655	675
Average------	605	564	626	529	668	518	639	783	501	501	575	606
May 21----	646	339	668	746	773	757	684	778	201	408	718	---
May 22----	604	664	561	261	680	762	712	829	707	495	---	332
May 23----	599	421	757	444	774	772	535	810	358	609	--	743
May 24----	666	568	718	307	653	760	253	816	634	519	710	509
May 25----	691	395	327	225	755	772	700	817	578	544	482	312
May 26----	647	333	557	676	400	730	234	812	495	453	606	642
May 27----	684	590	611	570	756	593	532	788	(652)	572	481	---
Average------	648	473	600	461	684	735	521	807	(518)	514	599	508
May 28----	384	490	524	642	758	391	683	818	525	473	357	609
May 29----	639	634	385	728	763	765	595	808	601	566	746	633
May 30----	627	337	607	777	788	715	541	720	377	606	665	626
May 31----	479	500	454	774	769	415	730	811	813	513	576	426
June 1----	550	504	648	730	749	84	210	788	822	605	574	689
June 2----	471	514	250	326	691	102	745	557	684	482	615	658
June 3----	273	671	321	907	790	306	714	770	334	456	342	454
Average------	489	522	456	698	758	397	603	753	594	529	554	599

1962	Fresno, Calif.	Gainesville, Fla.	Glasgow, Mont.	Grand Junction,Colo.	Great Falls, Mont.	Greensboro, N. C.	Griffin, Ga.	Cape Hatteras, N. C.	Hilo, Hawaii	Indianapolis, Ind.	Inyokern China Lake, Calif.	Ithaca, New York	Lake Charles, La.	Lander, Wyo.	Laramie, Wyo.
May 7----	573	724	405	595	182	700	711	667	375	640	776	697	626	682	554
May 8----	617	663	331	756	558	681	689	717	660	517	882	86	628	633	549
May 9----	619	704	557	749	576	381	734	360	384	517	859	719	589	652	633
May 10----	502	510	309	628	353	352	395	442	652	262	833	712	644	498	588
May 11----	600	557	213	430	148	318	602	(214)	430	507	837	660	639	426	619
May 12----	480	598	649	485	633	447	667	757	461	427	895	602	640	334	401
May 13----	619	562	113	630	151	198	691	446	386	627	891	590	627	715	627
Average------	573	617	368	610	372	440	641	(515)	478	500	853	581	627	563	567
May 14----	453	539	275	413	505	550	696	564	365	642	795	575	570	301	509
May 15----	470	552	219	651	182	567	737	709	137	630	750	610	---	566	487
May 16----	329	617	228	427	281	579	774	710	379	605	---	585	---	674	344
May 17----	637	504	546	312	650	630	748	727	279	632	886	575	---	469	376
May 18----	621	574	654	760	618	611	694	698	303	586	879	605	600	631	403
May 19----	(642)	673	711	769	493	610	703	679	376	604	886	660	596	657	692
May 20----	660	462	442	638	160	583	807	677	321	649	---	544	550	651	394
Average------	(545)	560	439	567	413	590	737	681	309	621	839	593	579	564	458
May 21----	653	670	111	441	88	586	713	562	229	461	---	286	599	79	360
May 22----	641	522	184	573	601	690	710	649	540	573	899	670	576	515	451
May 23----	658	584	639	682	673	588	660	711	459	594	912	618	350	510	658
May 24----	659	770	729	645	290	619	655	662	393	714	892	472	514	481	501
May 25----	629	663	543	461	258	704	727	727	463	462	952	556	607	381	473
May 26----	377	685	524	716	139	672	715	697	363	273		630	603	583	689
May 27----	197	605	398	223	670	---	674	400	587	204		729	613	272	302
Average------	545	643	447	534	388	643	693	630	434	469	914	566	552	403	491
May 28----	629	618	226	648	373	--	691	665	569	492	896	693	562	436	652
May 29----	643	529	354	743	685	328	695	530	316	615	886	670	---	644	580
May 30----	650	421	457	578	728	463	611	755	566	498	729	670	515	733	707
May 31----	651	617	544	767	721	539	463	682	655	674	886	573	549	429	338
June 1----	631	406	616	769	635	607	633	625	714	641	883	324	342	704	642
June 2----	615	607	749	805	714	524	592	669	565	492	869	624	76	765	609
June 3----	663	685	743	495	205	341	741	721	491	560	880	733	403	517	576
Average------	640	555	327	686	580	467	632	664	554	567	861	612	408	604	586

Note.--Langley is the unit used to denote one gram calorie per square centimeter.
Values in parentheses are interpolated.

SOLAR RADIATION DATA

Daily totals and weekly averages of solar radiation (direct and diffuse) received on a horizontal surface, tabulated in langleys.

1962	Las Vegas, Nev.	Lemont, Ill.	Lexington, Ky.	Little Rock, Ark.	Los Angeles, Calif.	Los Angeles, Calif. (Urban)	Madison, Wis.	Manhattan, Kans.	Matanuska, Alaska	Mauna Loa Obs., Hawaii	Medford, Oreg.	Miami, Fla.	Midland, Tex.	Nashville, Tenn.	Newport, R. I.	North Omaha, Nebr.	Oak Ridge, Tenn.	Oklahoma City, Okla.	Page, Ariz.	Phoenix, Ariz.
May 7----	701	370	803	617	(618)	638	242	675	---	456	508	700	610	669	652	589	648	672	575	619
May 8----	---	393	653	641	(587)	603	269	441	184	598	358	734	624	600	211	489	531	609	673	695
May 9----	767	383	498	614	649	617	490	582	525	473	399	672	640	309	717	236	517	584	697	695
May 10----	608	91	615	637	(454)	(525)	65	481	561	583	411	634	580	607	715	---	540	607	645	685
May 11----	501	302	654	668	(646)	---	413	668	166	---	430	500	586	525	519	636	540	675	666	714
May 12----	781	336	629	686	(722)	---	453	636	263	669	567	575	594	663	693	618	607	658	711	705
May 13----	685	547	765	645	658	---	567	336	323	738	532	(528)	624	639	710	438	633	---	634	723
Average-----	674	346	660	644	(619)	(596)	357	546	337	586	458	(620)	608	573	602	501	574	634	657	691
May 14----	629	566	756	624	611	---	524	633	271	567	370	510	598	646	66	597	619	---	647	732
May 15----	689	633	763	601	515	---	706	443	351	320	301	537	308	657	205	500	604	566	583	714
May 16----	333	641	644	641	562	---	695	474	368	398	724	520	432	623	(224)	486	599	400	519	488
May 17----	751	618	683	499	708	---	613	603	658	263	667	493	117	621	601	418	632	514	480	652
May 18----	770	478	632	613	713	---	---	329	189	431	480	704	507	602	580	427	562	532	722	718
May 19----	775	582	717	619	589	---	722	585	207	435	472	687	511	634	586	729	534	599	754	671
May 20----	772	689	653	621	642	---	795	551	234	---	411	708	620	643	652	609	560	560	---	729
Average-----	674	601	693	603	620	---	676	517	325	402	489	594	442	633	(416)	538	587	528	617	672
May 21----	792	209	730	625	728	---	---	679	313	---	745	549	673	505	452	634	579	683	697	733
May 22----	778	587	758	524	719	---	535	602	370	729	355	562	704	558	696	443	502	---	740	737
May 23----	769	636	697	620	629	---	345	628	367	793	558	633	643	558	642	---	548	710	716	766
May 24----	693	730	796	633	575	---	543	605	463	(781)	---	636	682	564	253	---	474	536	641	773
May 25----	781	465	398	620	689	---	719	507	378	780	340	652	571	460	691	262	501	---	708	763
May 26----	478	286	442	438	686	---	330	609	427	664	644	693	655	584	560	591	557	576	590	745
May 27----	693	148	442	546	561	---	382	596	247	759	678	688	664	603	661	240	571	463	532	519
Average-----	712	437	609	572	655	---	475	604	366	(751)	553	630	656	547	565	434	533	594	660	719
May 28----	748	532	827	603	527	---	433	29	268	768	333	698	673	534	625	24	540	90	671	745
May 29----	739	560	733	216	684	473	580	656	428	389	648	583	702	556	732	421	493	712	720	738
May 30----	739	506	461	322	260	294	753	472	690	664	735	581	651	200	439	710	426	715	558	661
May 31----	763	700	703	594	668	552	793	667	663	---	657	---	579	548	614	725	465	544	730	737
June 1----	650	653	842	396	595	699	250	325	364	---	759	---	655	495	662	457	488	126	666	607
June 2----	768	661	425	388	382	706	459	49	406	423	313	---	607	589	712	445	387	291	742	610
June 3----	775	253	684	640	367	252	337	437	509	780	696	---	571	465	751	108	513	348	609	485
Average-----	740	552	668	451	498	496	515	376	475	605	592	---	634	484	648	413	473	404	671	655

1962	Prosser, Wash.	Pullman, Wash.	Rapid City, S. Dak.	Riverside, Calif.	St. Cloud, Minn.	Salt Lake City, Utah	San Antonio, Tex.	Santa Maria, Calif.	S. Ste. Marie, Mich.	Sayville, N. Y.	Seattle, Wash.	Seattle-Tacoma, Wash.	Shreveport, La.	Spokane, Wash.	State College, Pa.	Stillwater, Okla.	Swan Island, W. I.	Tampa, Fla.	Tucson, Ariz.	Washington, D. C. (Obs & Test Dev Ctr.)
May 7----	515	280	423	701	88	668	651	605	625	635	---	641	664	436	732	626	---	708	590	657
May 8----	227	396	548	663	351	777	594	667	201	131	109	180	691	329	150	619	533	681	696	269
May 9----	450	514	504	766	325	704	537	634	762	689	325	391	647	323	763	604	498	684	702	640
May 10----	707	513	(525)	473	249	472	521	644	442	687	453	502	660	504	682	612	568	657	663	532
May 11----	595	623	335	717	100	559	602	748	734	405	385	560	698	536	617	629	340	563	650	---
May 12----	666	742	568	766	449	418	639	735	583	636	481	582	691	547	574	633	267	687	692	509
May 13----	764	722	594	530	366	634	757	786	53	670	---	589	651	---	213	563	402	430	740	214
Average-----	561	541	(500)	659	275	605	614	688	48[illegible]	550	350	492	672	446	533	612	435	630	676	470
May 14----	670	769	507	391	521	429	469	698	396	363	550	495	616	694	645	577	292	538	745	650
May 15----	465	643	593	620	549	726	514	665	671	463	239	307	516	582	491	536	291	617	745	592
May 16----	717	787	413	212	452	735	411	591	633	315	608	645	644	---	585	470	471	551	746	650
May 17----	627	639	606	755	609	400	535	724	710	454	208	365	534	---	632	577	557	545	755	418
May 18----	(607)	231	178	752	368	754	495	701	634	557	290	488	614	---	621	456	613	538	758	671
May 19----	133	471	726	785	477	804	554	788	495	580	264	334	626	---	504	510	264	595	596	637
May 20----	456	109	89	581	263	485	622	818	218	575	324	443	649	---	631	549	528	679	761	659
Average-----	(525)	521	444	585	463	619	514	712	537	473	355	440	600	---	587	525	431	581	729	611
May 21----	786	493	117	815	117	234	579	812	798	488	441	679	653	---	610	629	574	634	758	599
May 22----	632	---	251	804	84	487	324	814	585	668	187	260	540	665	763	621	623	631	763	569
May 23----	331	---	730	815	174	747	493	756	425	627	51	82	474	280	545	667	617	614	750	372
May 24----	92	---	324	637	742	469	433	786	114	371	60	97	522	277	641	606	610	649	757	494
May 25----	461	---	54	703	611	353	298	839	828	659	213	197	576	401	719	619	558	652	752	704
May 26----	810	---	187	395	355	624	496	515	814	461	271	303	550	544	494	620	521	675	735	669
May 27----	781	786	75	297	520	658	471	420	575	607	516	453	493	707	678	544	599	664	730	386
Average-----	556	---	248	638	372	510	442	706	591	554	248	296	544	479	636	615	586	645	749	542
May 28----	778	751	584	575	183	397	379	475	717	301	555	646	483	604	220	100	617	636	746	150
May 29----	670	795	358	659	409	780	697	720	162	667	370	582	382	701	345	662	622	540	742	528
May 30----	(776)	820	756	517	319	597	641	784	399	293	597	---	450	764	537	617	621	528	676	443
May 31----	623	664	388	680	281	771	514	784	371	502	522	679	527	574	472	494	584	522	773	538
June 1----	744	819	297	743	274	802	558	760	574	538	608	627	226	805	472	164	408	423	747	667
June 2----	292	519	192	763	353	810	446	787	830	602	309	411	625	449	688	208	634	624	643	674
June 3----	667	641	508	298	364	372	602	793	824	586	411	527	440	574	794	227	410	681	668	329
Average-----	(650)	715	440	605	312	647	548	729	554	498	482	579	448	63[illegible]	504	353	557	565	714	475

Note.--Langley is the unit used to denote one gram calorie per square centimeter.
Values in parentheses are interpolated.

TOTAL OZONE DATA

The total amount of ozone is expressed in 10^{-3} cm. at STP. These data are provisional values applicable to local noon, and are obtained from measurements with a Dobson ozone spectrophotometer using the sun or zenith sky as a light source (see explanation below).

MAY 1962

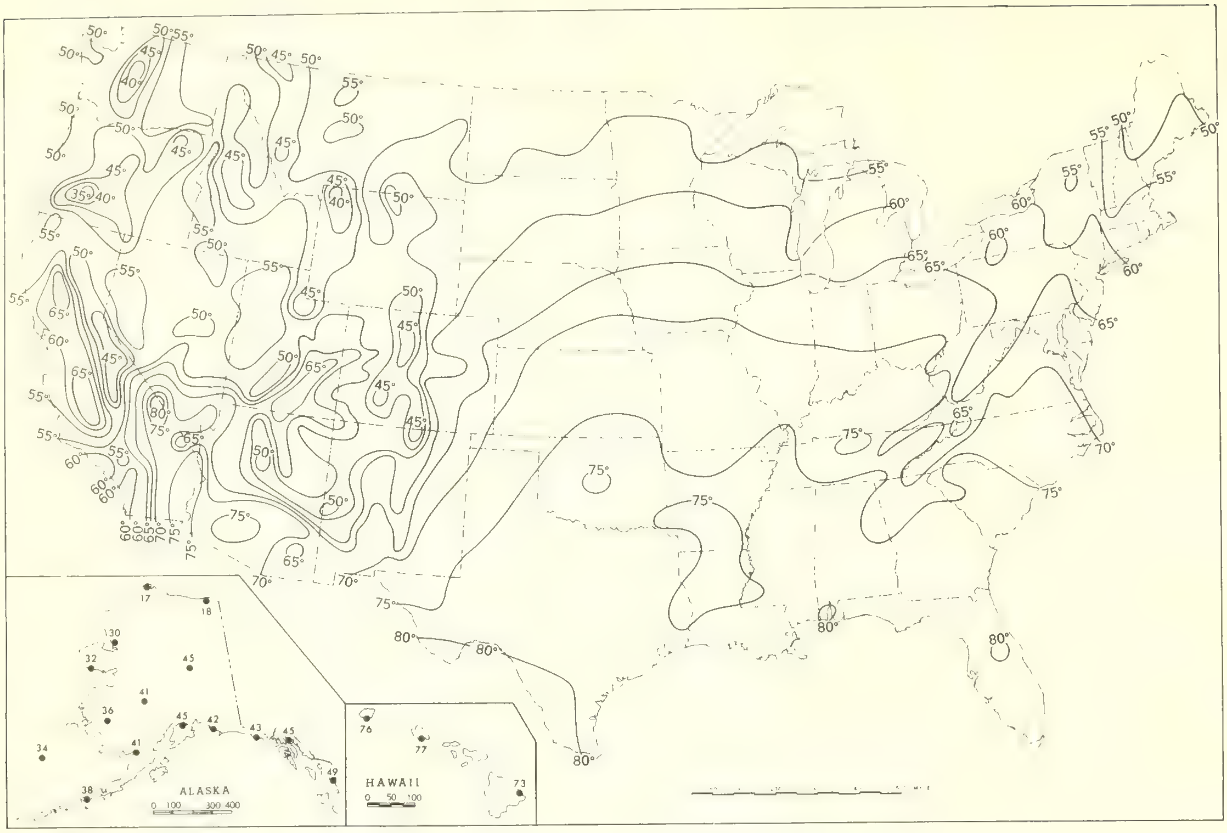
Station	Day of month																														
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31
Bismarck, N. Dak.	376	343	376	359	322	---	350	---	324	277	---	---	---	---	---	---	319	---	302	---	---	---	341	322	---	---	---	---	---	---	---
Caribou, Maine	---	---	---	---	---	---	---	---	---	---	---	---	371	---	---	321	---	---	293	---	---	350	354	---	---	---	349	376	328	---	303
Green Bay, Wis.	---	---	343	338	---	337	---	---	---	---	320	310	---	293	285	268	255	255	270	---	258	---	296	306	315	---	---	---	300	274	325
Hallett, Antarctica	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	‡231	---	‡209	---	---	---	---	---	---	---	---	---
Mauna Loa, Hawaii	303	308	---	304	303	315	---	310	308	299	298	---	301	---	---	296	297	315	306	312	306	313	301	289	286	287	---	291	292	299	293
Nashville, Tenn.	---	361	359	---	357	---	346	343	---	332	353	323	314	320	308	323	315	340	325	319	305	298	---	---	---	---	---	---	---	---	349
Sterling, Va.	*348	---	---	355	†358	397	---	372	*434	358	*361	*370	*330	332	327	329	*333	325	325	310	314	322	---	*423	316	335	*331	*368	*324	---	308

The spectrophotometer measures the total amount of ozone in the atmosphere, i.e., the amount contained in a vertical column of air extending from the ground to the top of the atmosphere in the vicinity of the station. The amount of ozone in this column is expressed in terms of thickness of a layer it would occupy at standard temperature and pressure.

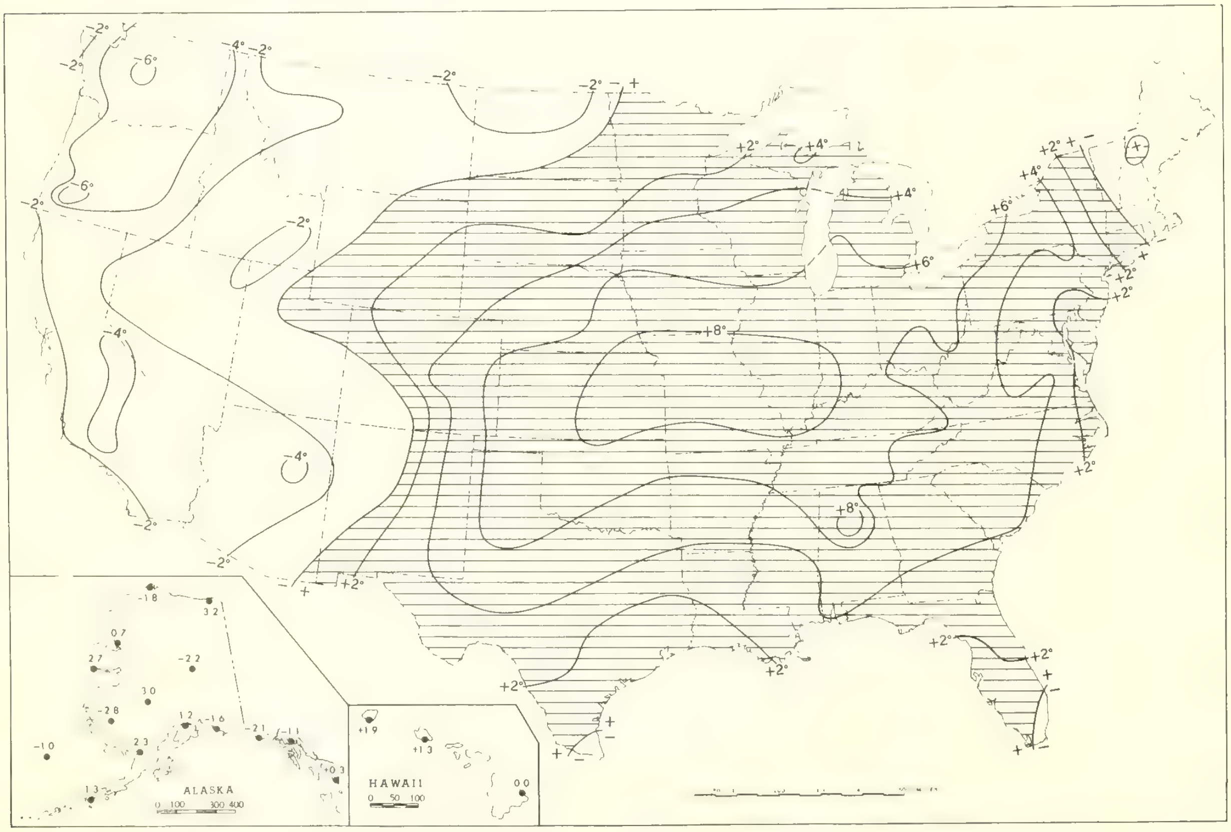
The standard method of measurement is that on direct sun using A(3055Å and 3254Å) and D(3176Å and 3398Å) wavelength pairs. Observations made on the clear zenith sky are slightly less accurate, and are marked with a dagger (†). Observations made on zenith cloud are least reliable, and are marked with an asterisk (*). A detailed description of the spectrophotometer and observational procedures may be found in the "Observers' Handbook For the Ozone Spectrophotometer", Annals of the International Geophysical Year, Volume V, Pergaman Press, 1957.

‡ Moon, Focused Image observations

Chart I. A. Average Temperature (°F.) at Surface, May 1962.

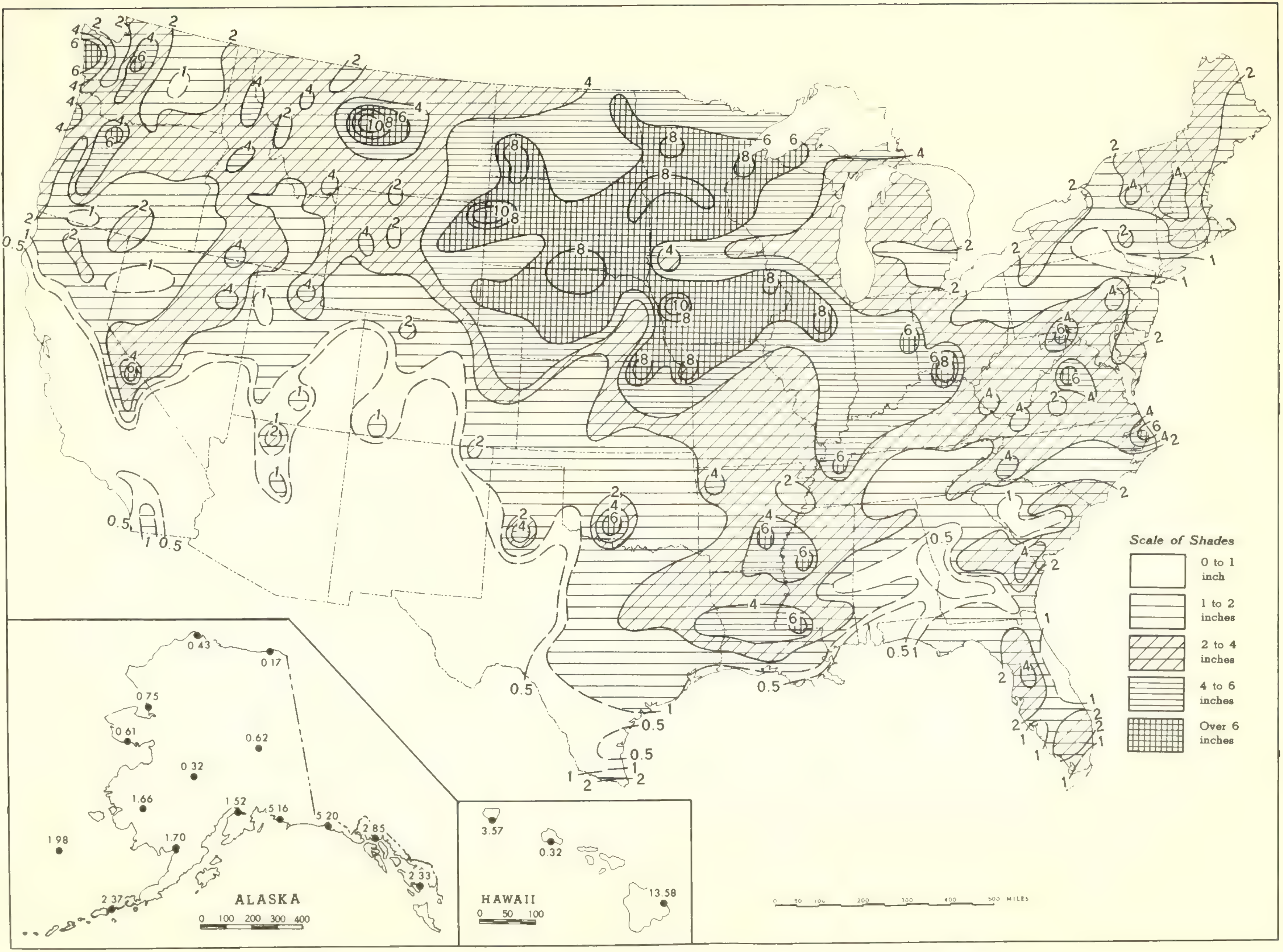


B. Departure of Average Temperature from Normal (°F.), May 1962.



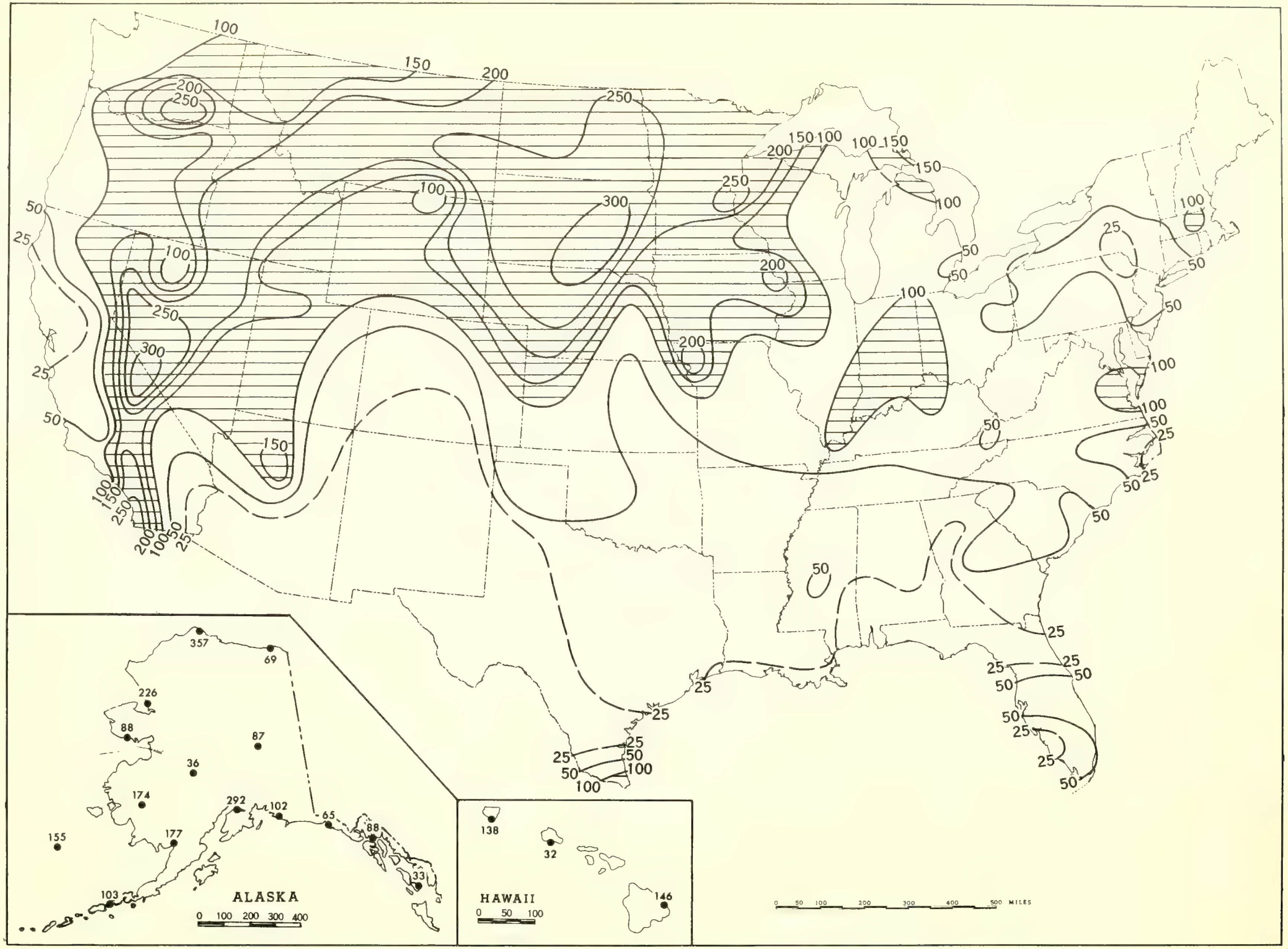
A. Based on reports from over 870 Weather Bureau and cooperative stations. The monthly average is half the sum of the monthly average maximum and monthly average minimum, which are the average of the daily maxima and daily minima, respectively.
B. Departures from normal are based on the 30-yr. normals (1931-60) for first-order Weather Bureau stations.

Chart II. Total Precipitation (Inches), May 1962.



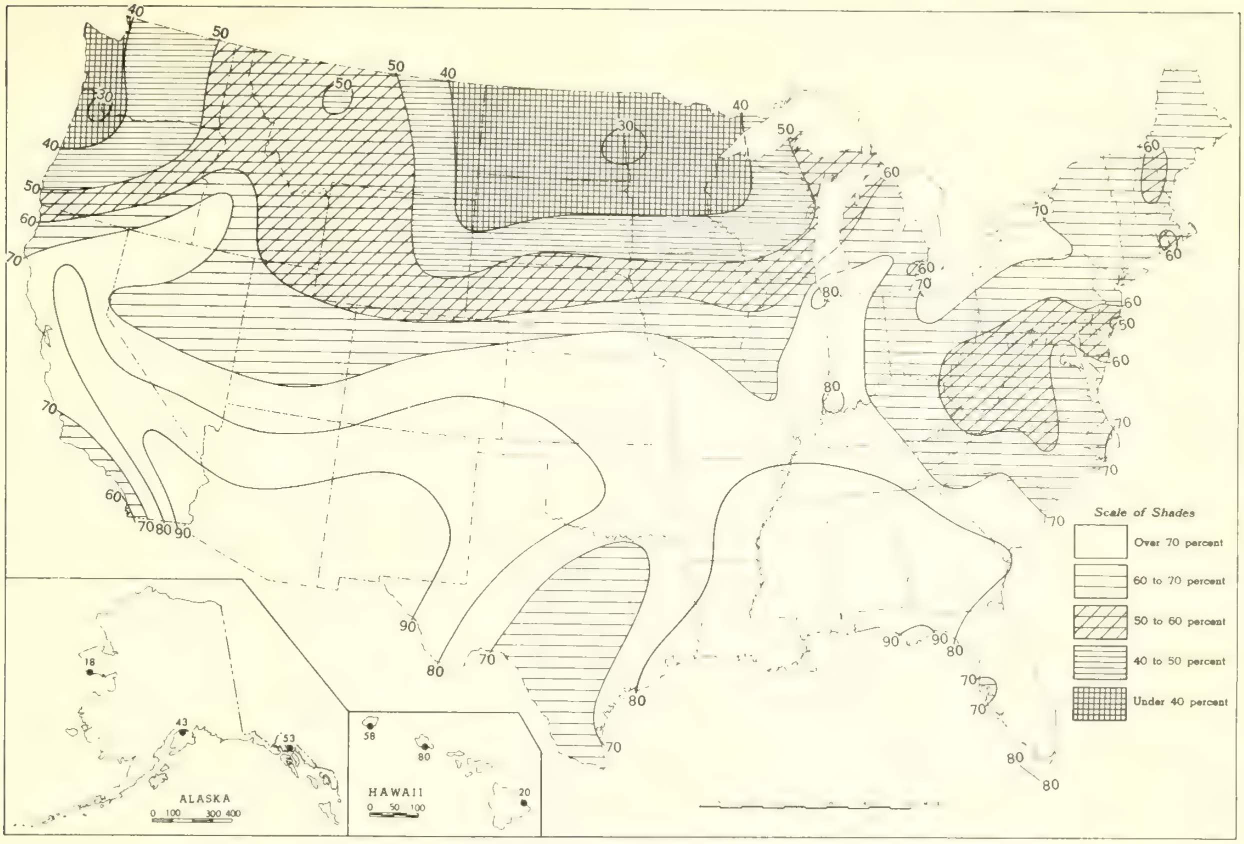
Based on daily precipitation records at about 870 Weather Bureau and cooperative stations.

Chart III. Percentage of Normal Precipitation, May 1962.

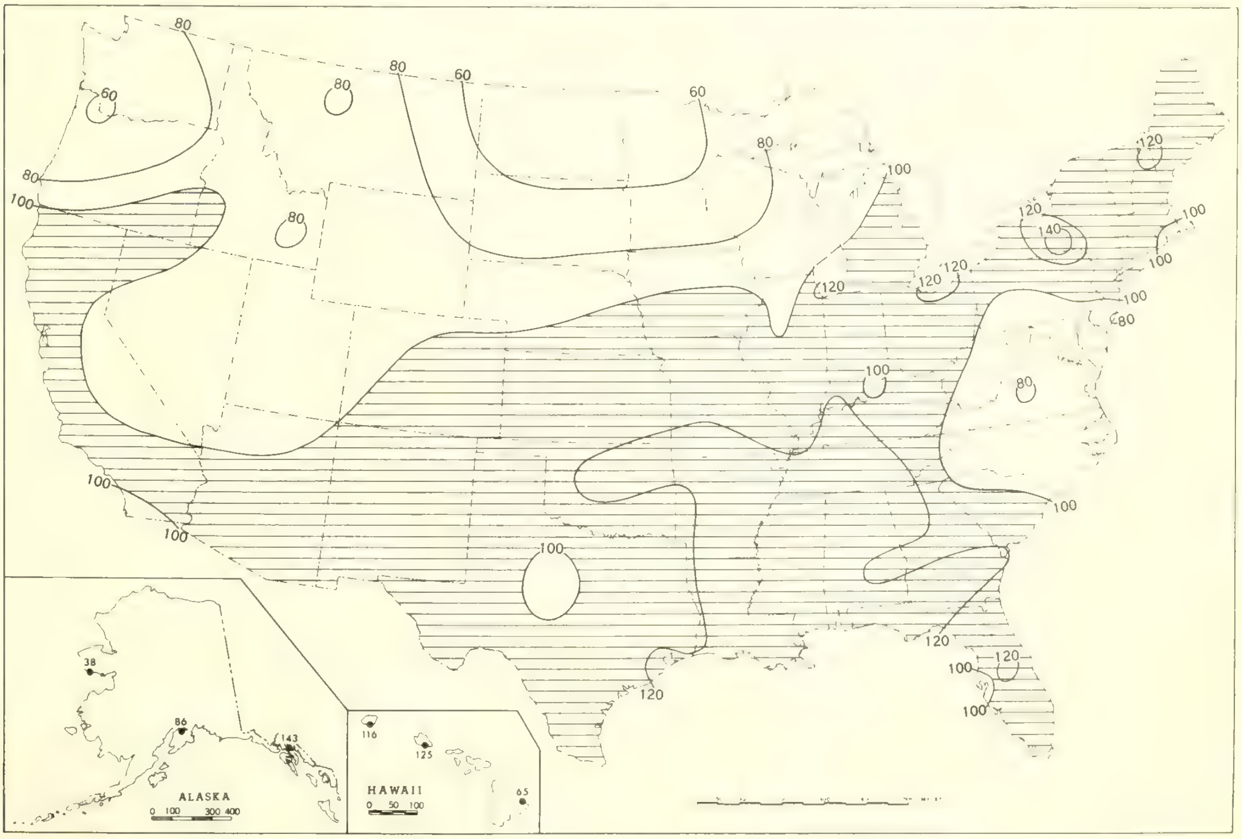


Normal monthly precipitation amounts are computed from 30-yr. normals (1931-60) for first-order Weather Bureau stations.

Chart VI. A. Percentage of Possible Sunshine, May 1962.

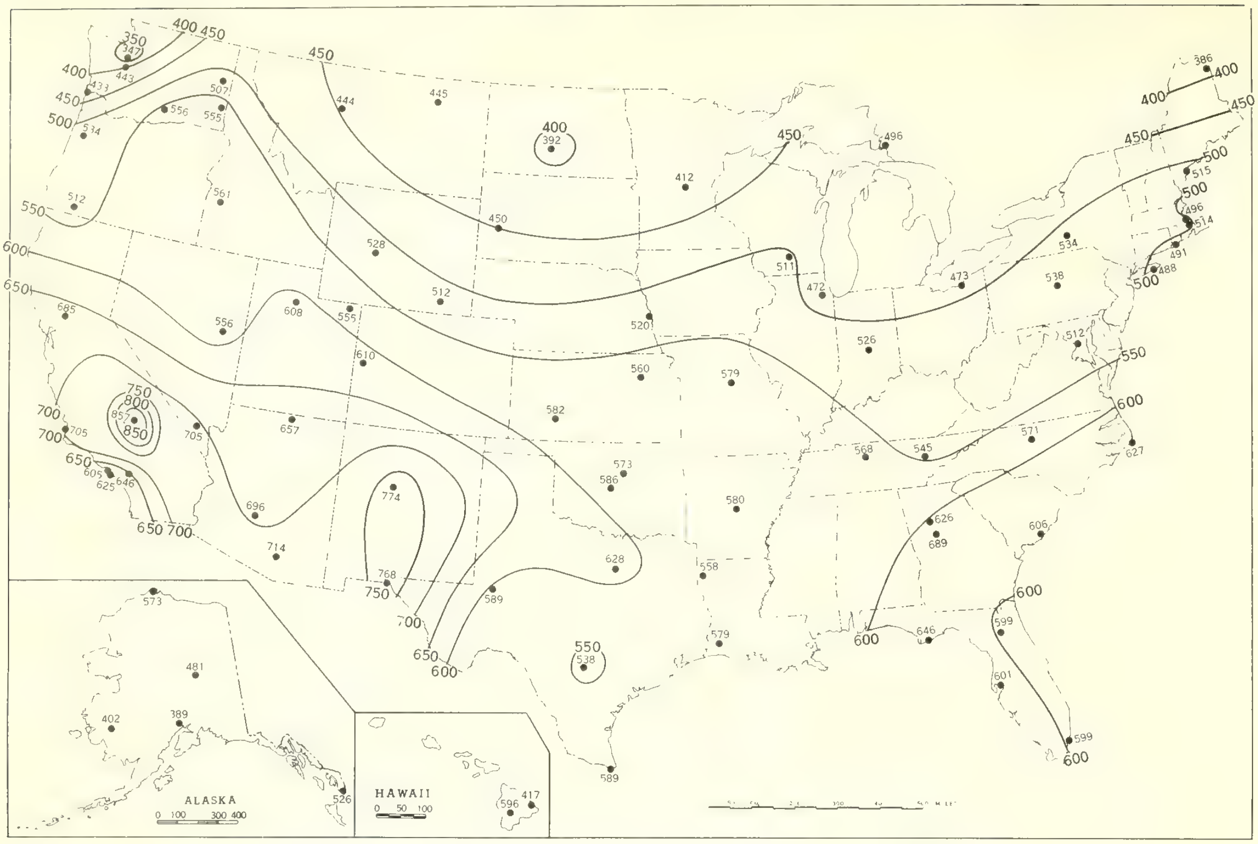


B. Percentage of Mean Monthly Sunshine, May 1962.

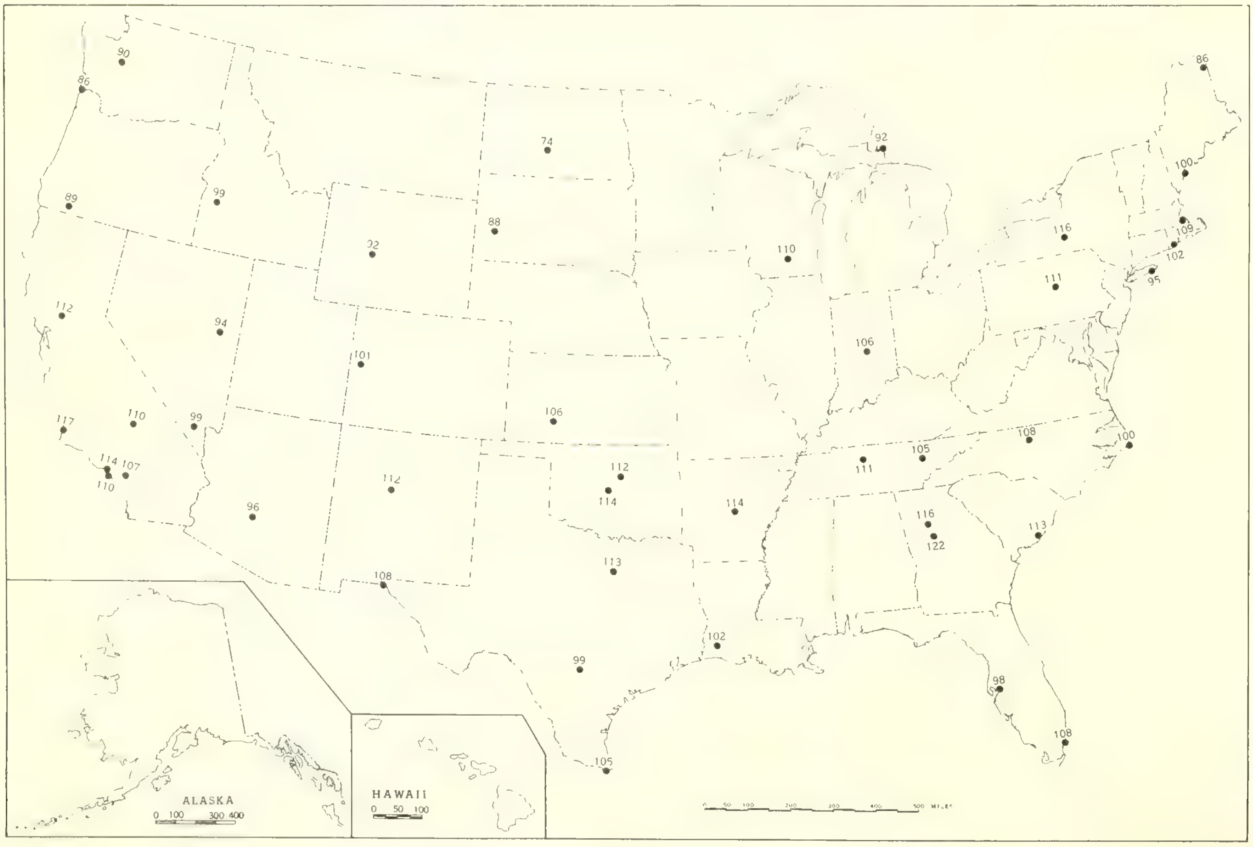


A. Computed from total number of hours of observed sunshine in relation to total number of possible hours of sunshine during month. B. Means are computed for stations having at least 10 years of record.

Chart VII. A. Average Daily Values of Solar Radiation, Langleys, May 1962.



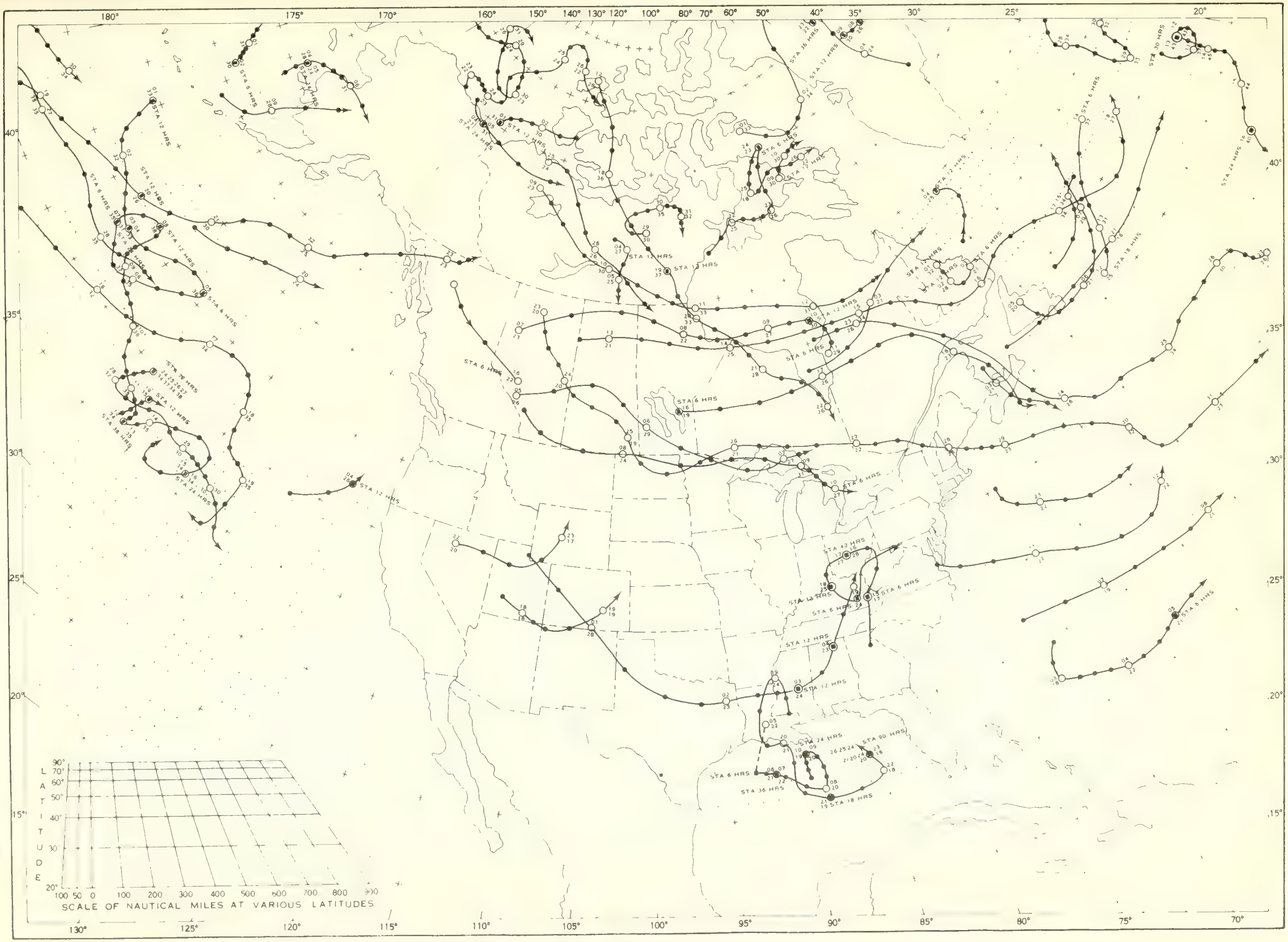
B. Percentage of Mean Daily Solar Radiation, May 1962.



A. Mean daily solar radiation, direct + diffuse, received on a horizontal surface in langleys (1 langley = 1 gm. cal. cm. $^{-2}$) and recorded in International Pyrheliometer Scale of 1956.

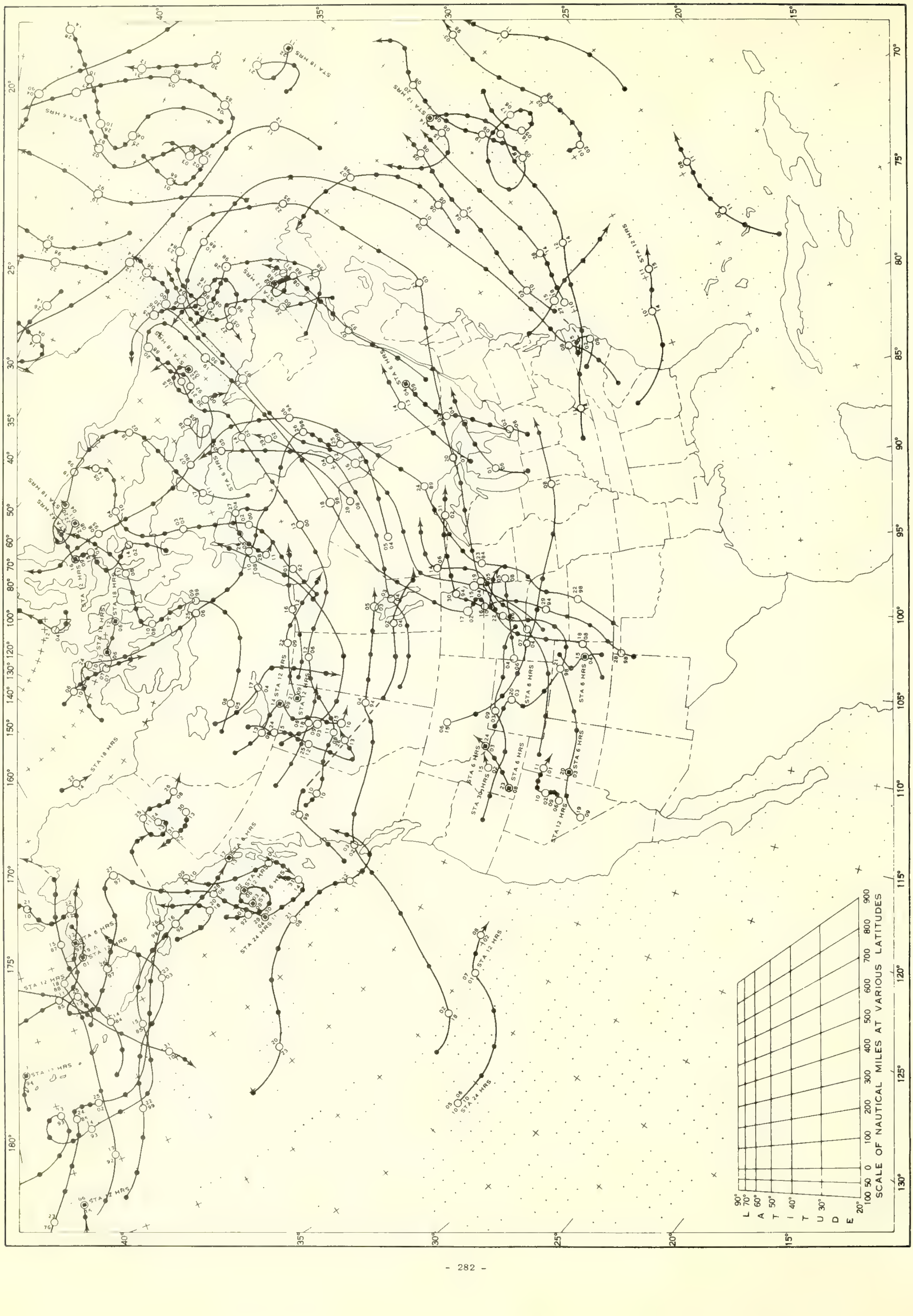
B. Percentage of the mean based on the period 1953-57, and corrected to the International Pyrheliometer Scale of 1956.

Chart VIII. Tracks of Centers of Anticyclones at Sea Level, May 1962.



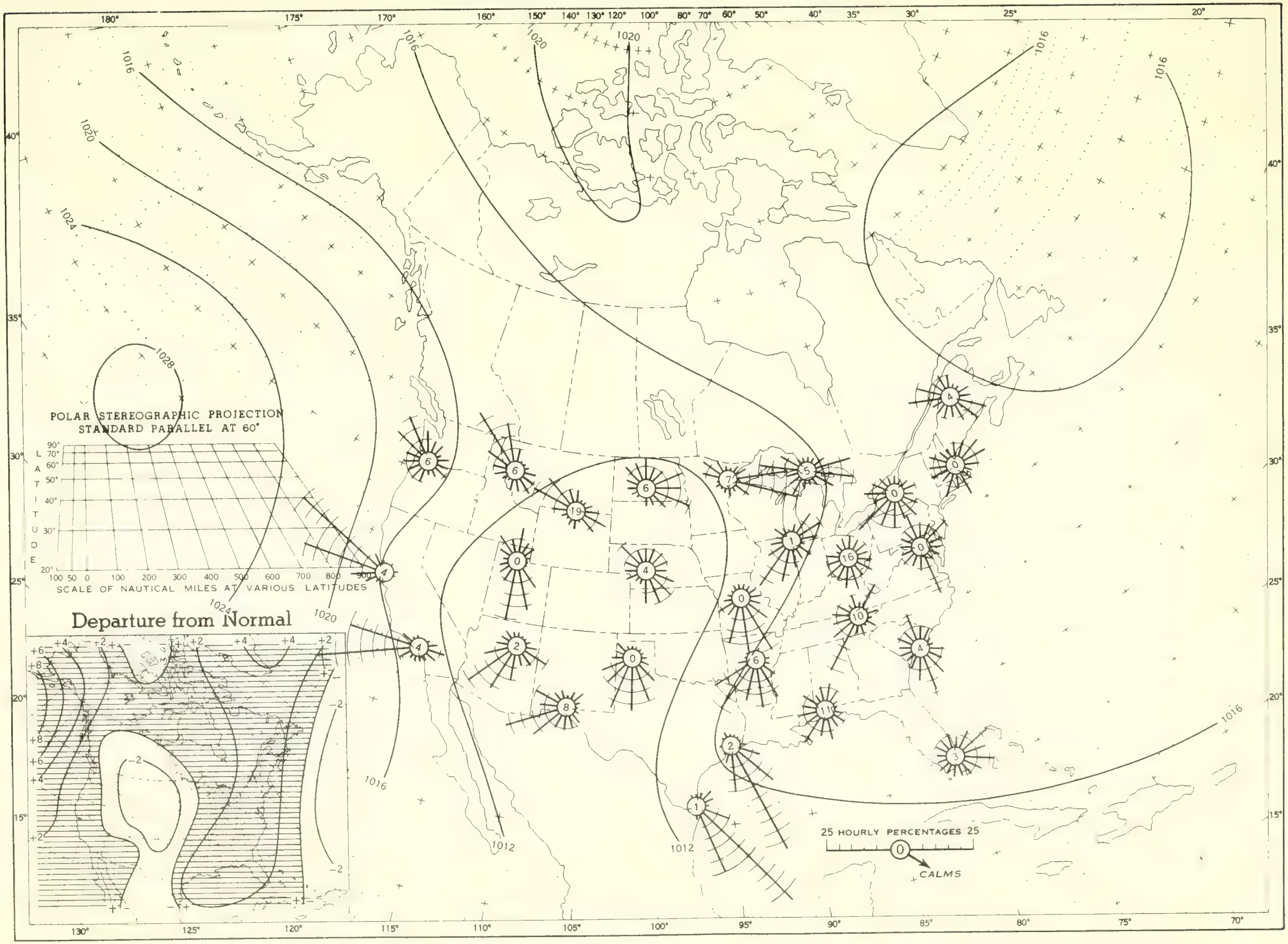
Circle indicates position of center at 7:00 a. m. E. S. T. Figure above circle indicates date, figure below, pressure to nearest millibar. Dots indicate intervening 6-hourly positions. Squares indicate position of stationary center for period shown. Dashed line in track indicates reformation at new position. Only those centers which could be identified for 24 hours or more are included.

Chart IX. Tracks of Centers of Cyclones at Sea Level, May 1962.



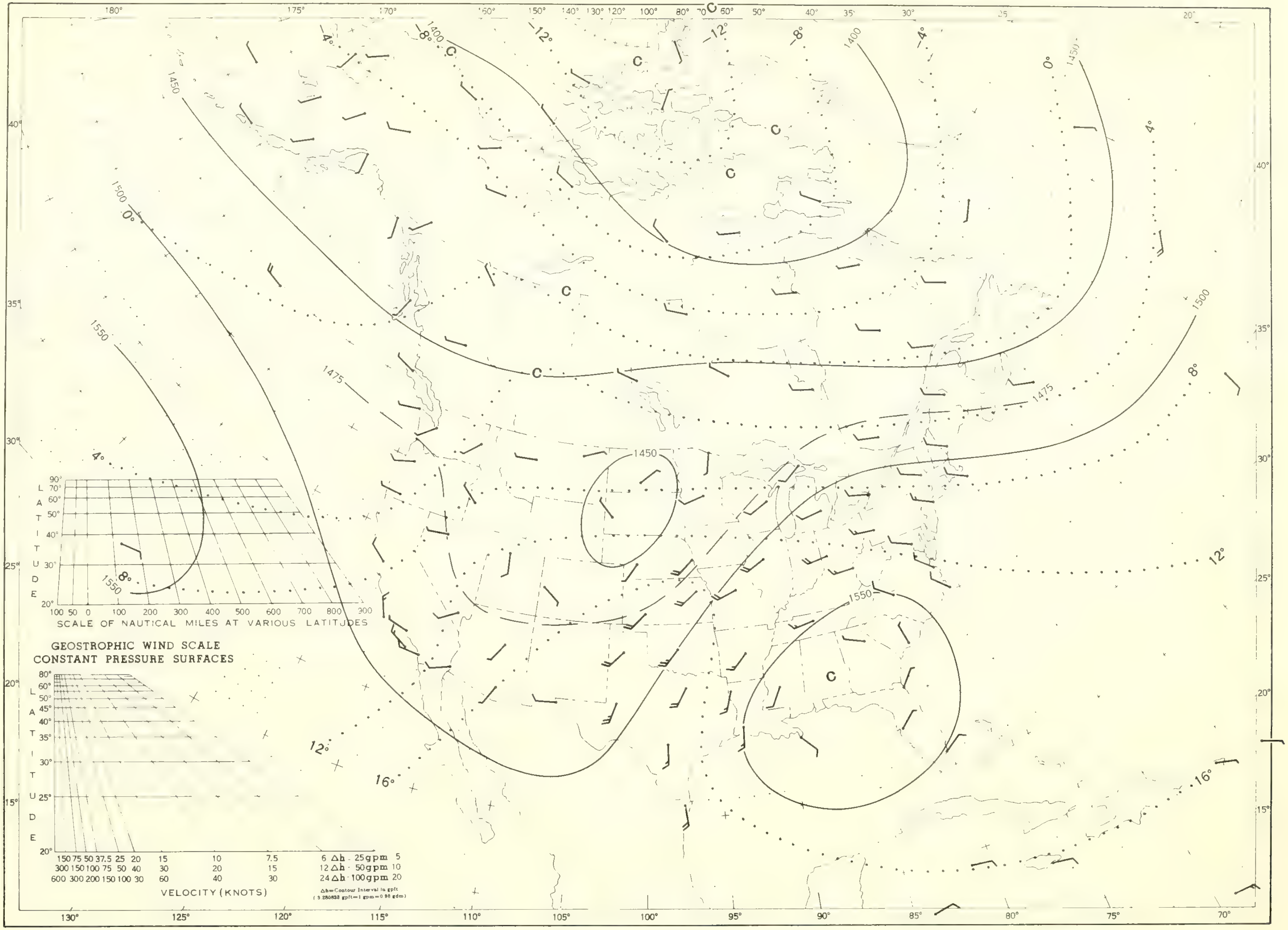
Circle indicates position of center at 7:00 a. m. E. S. T. See Chart VIII for explanation of symbols.

Chart X. Average Sea Level Pressure (mb.) and Surface Windroses, May 1962. Inset: Departure of Average Pressure (mb.) from Normal, May 1962.



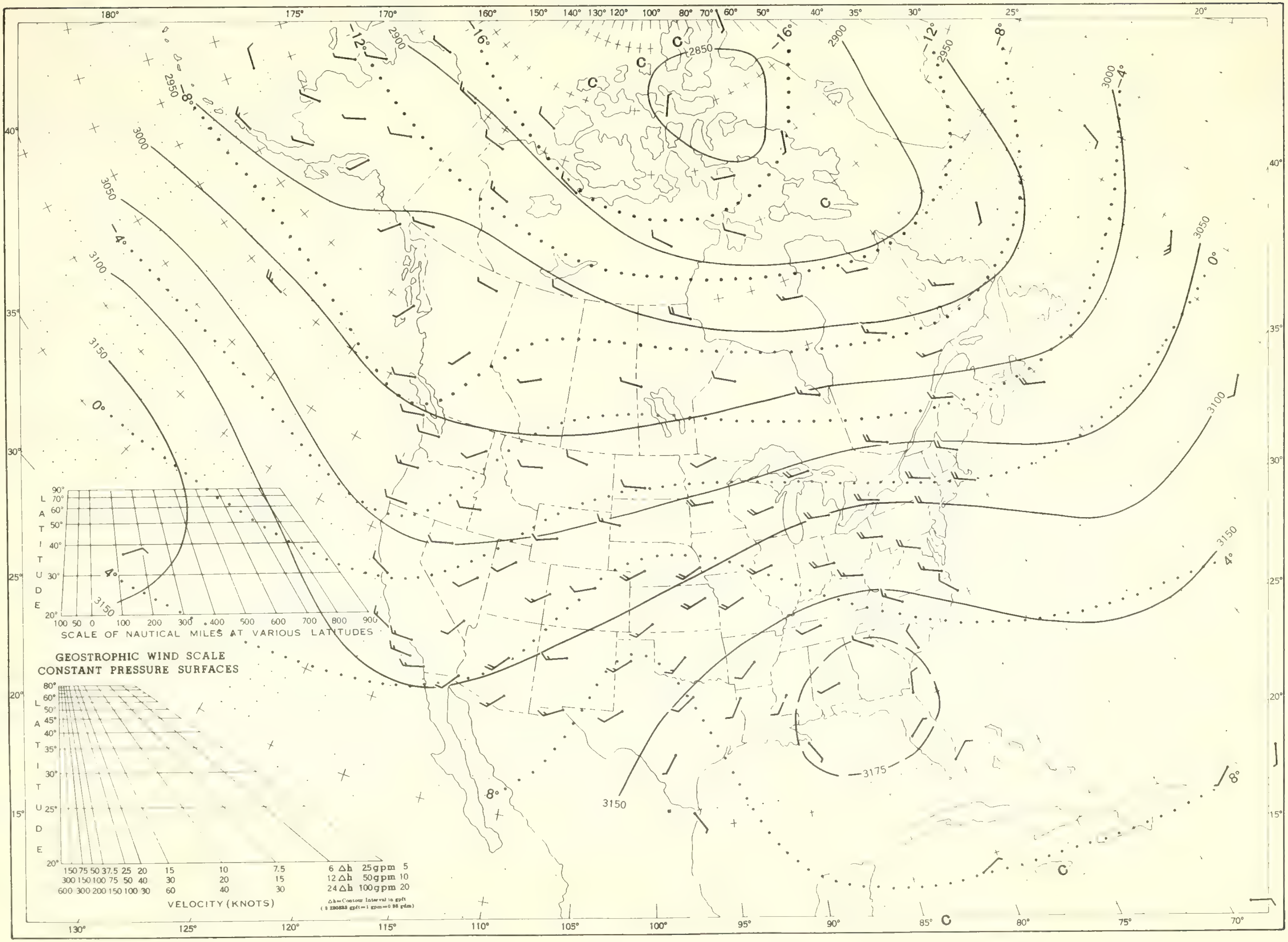
Average sea level pressures are obtained from the averages of the 7:00 a. m. and 7:00 p. m. E. S. T. readings. Windroses show percentage of time wind blew from 16 compass points or was calm during the month. Pressure normals are computed for stations having at least 10 years of record and for 10° intersections in a diamond grid based on readings from the Historical Weather Maps (1899-1939) for the 20 years of most complete data coverage prior to 1940.

Chart XI. 850-mb. Surface, 1200 GMT, May 1962. Average Height and Temperature, and Resultant Winds.



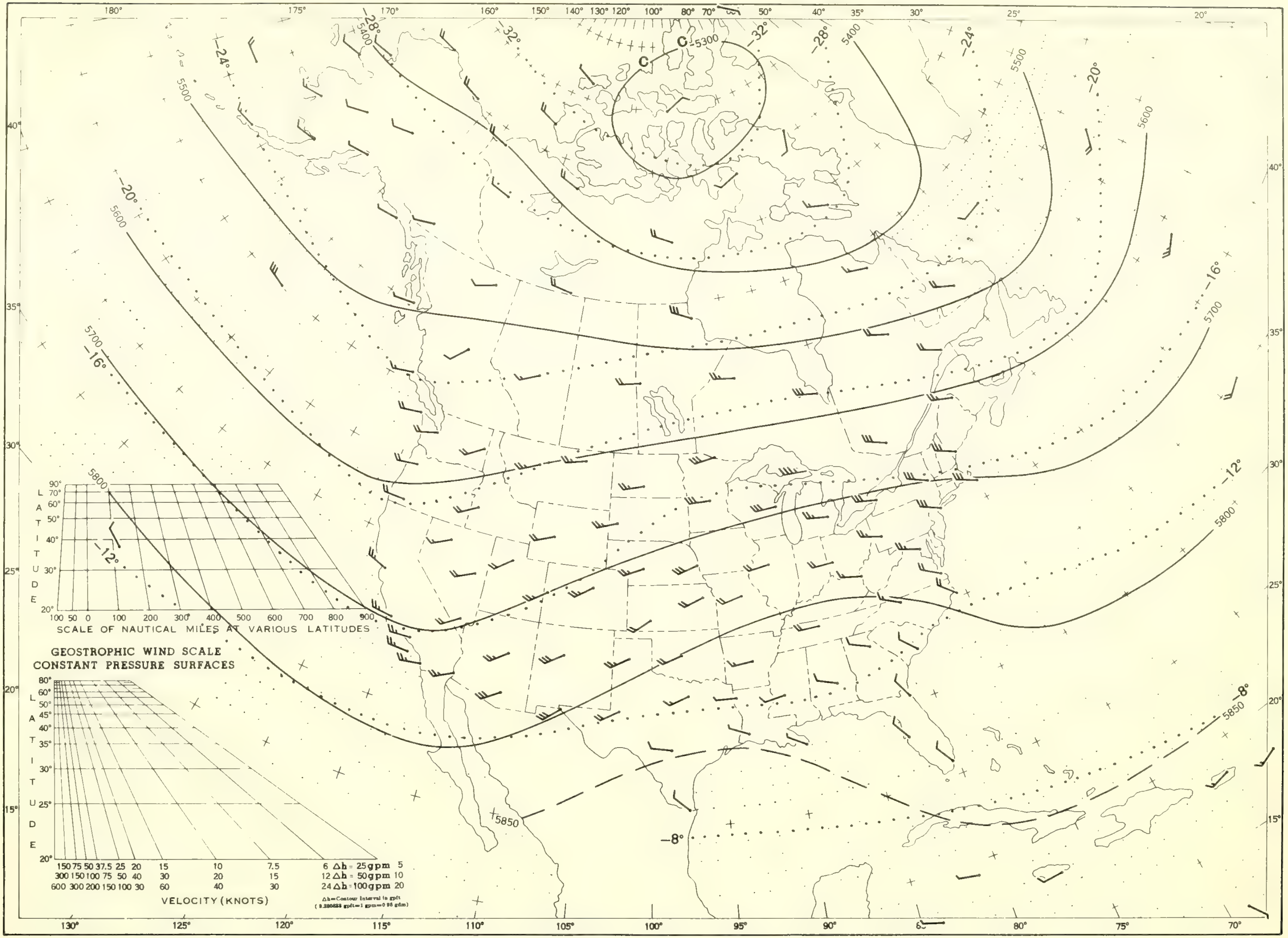
Height in geopotential meters (1 g.p.m. = 0.98 dynamic meters). Temperature in °C. Wind speed in knots; flag represents 50 knots, full feather 10 knots, and half feather 5 knots. All wind data are based on rawin observations.

Chart XII. 700-mb. Surface, 1200 GMT, May 1962. Average Height and Temperature, and Resultant Winds.



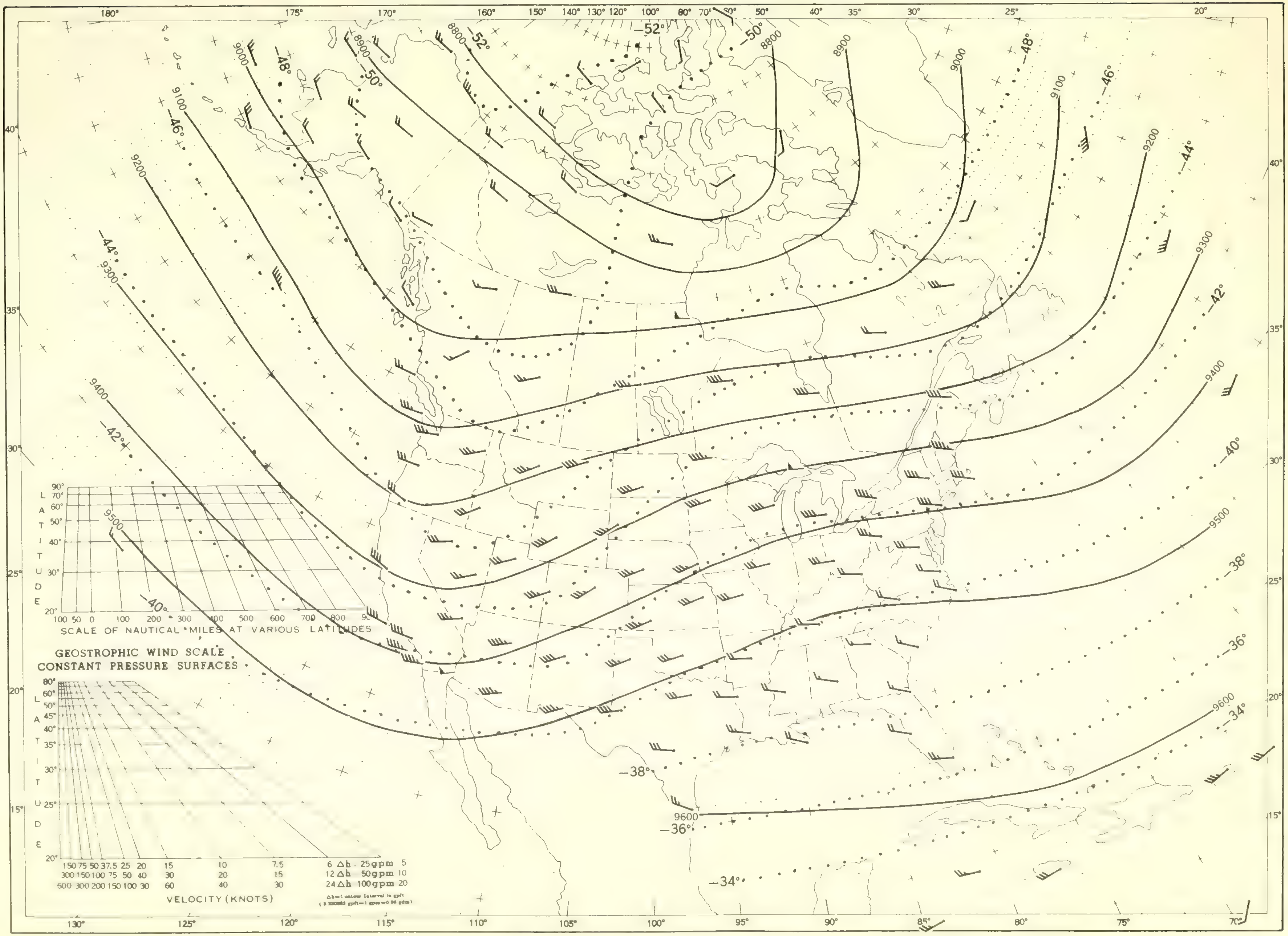
See Chart XI for explanation of map.

Chart XIII. 500-mb. Surface, 1200 GMT, May 1962. Average Height and Temperature, and Resultant Winds.



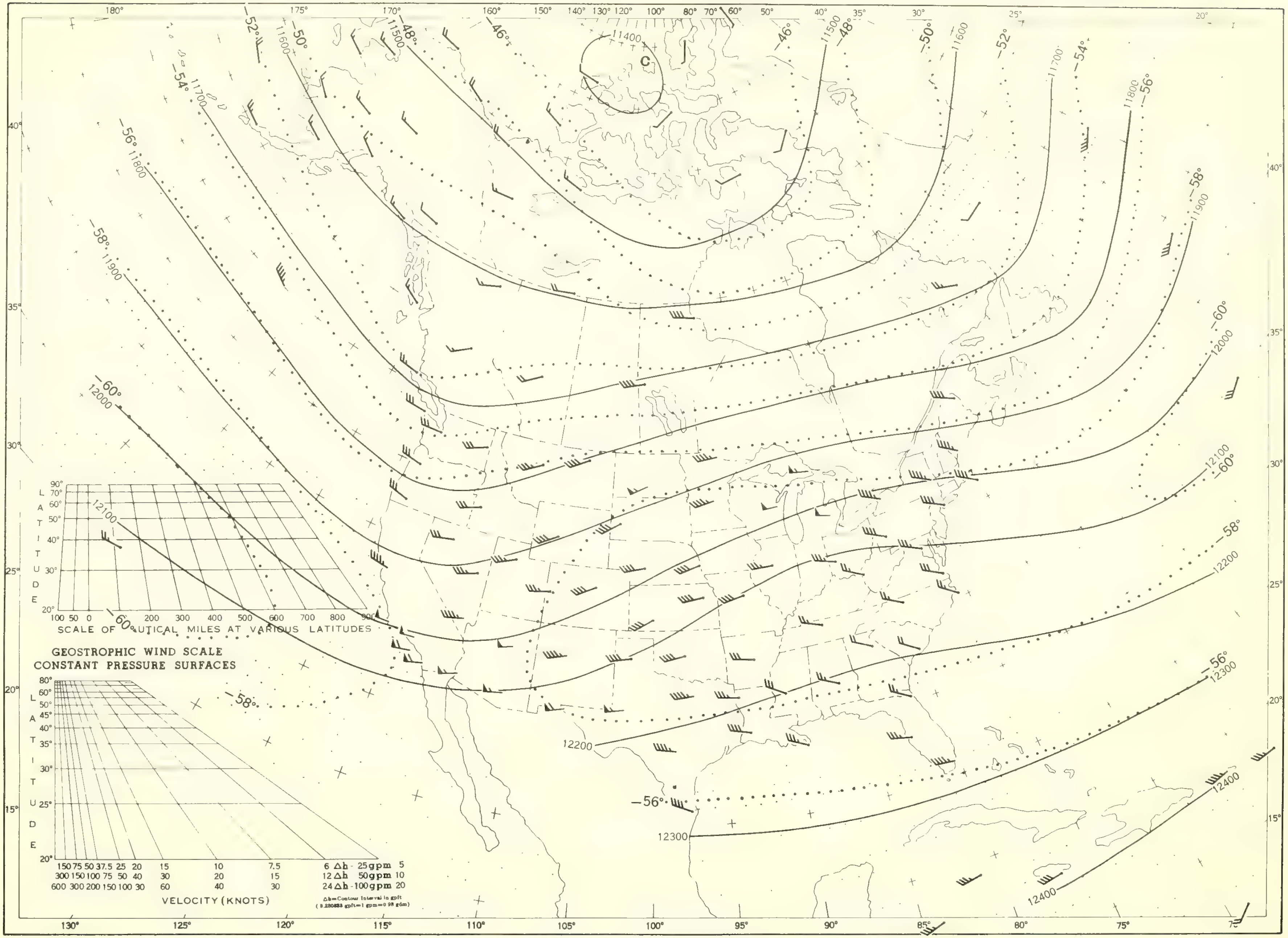
See Chart XI for explanation of map.

Chart XIV. 300-mb. Surface, 1200 GMT, May 1962. Average Height and Temperature, and Resultant Winds.



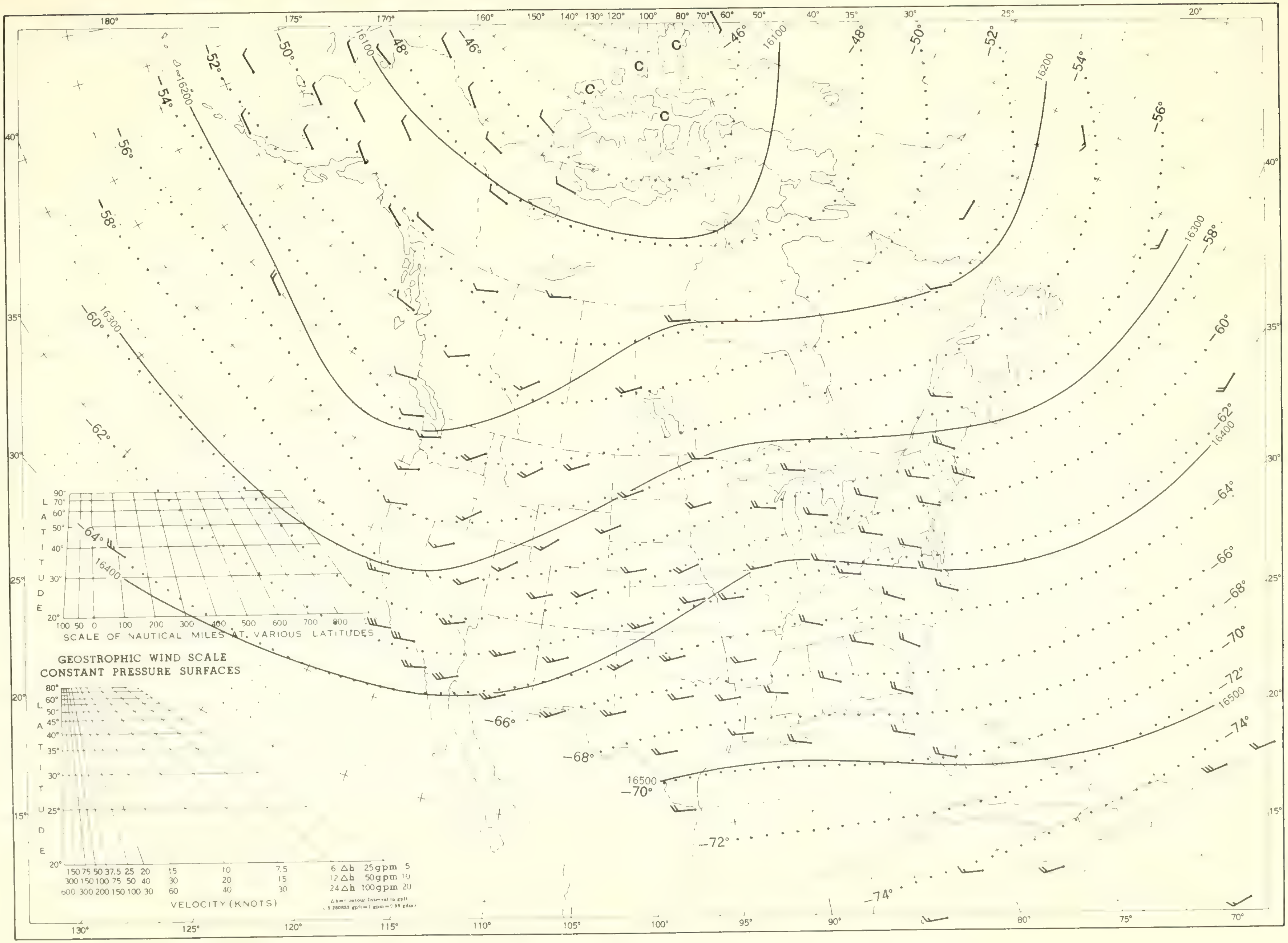
See Chart XI for explanation of map.

Chart XV. 200-mb. Surface, 1200 GMT, May 1962. Average Height and Temperature, and Resultant Winds.



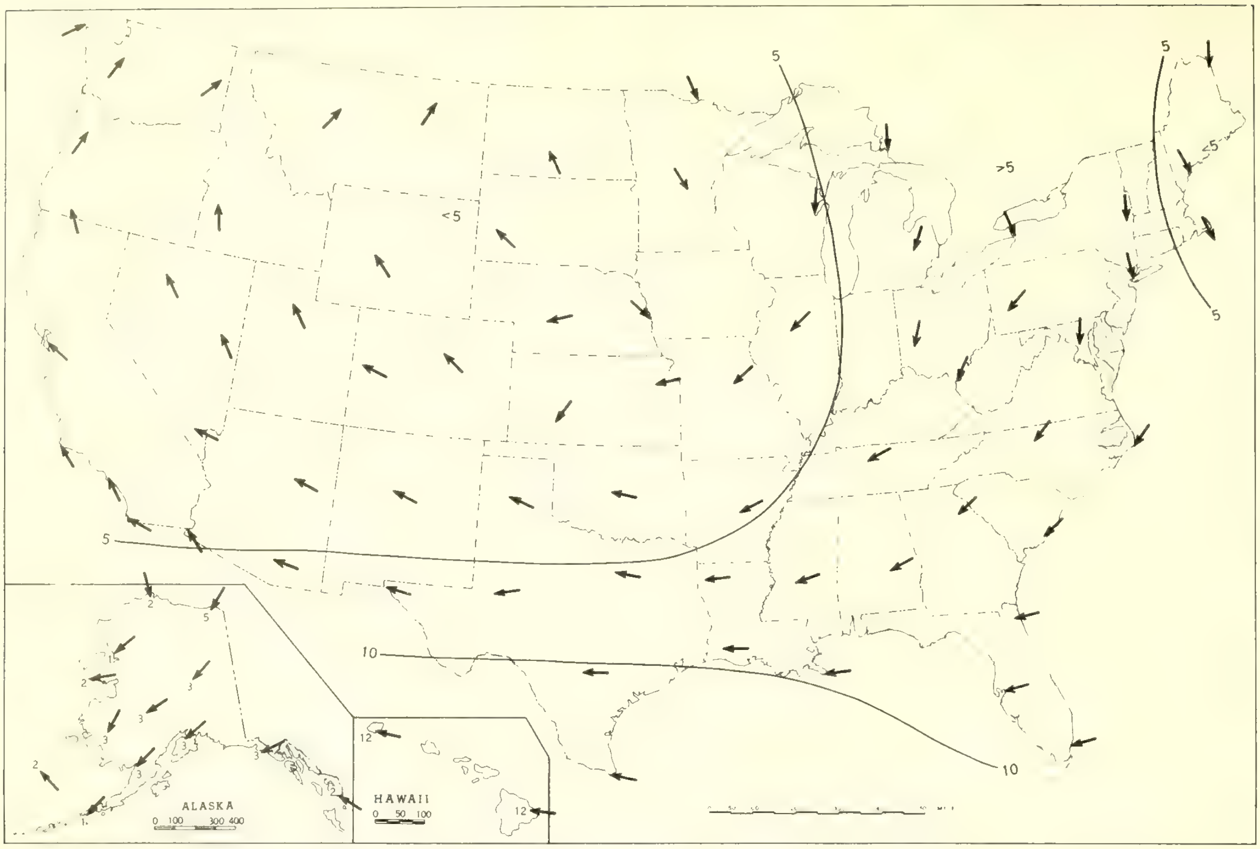
See Chart XI for explanation of map.

Chart XVI. 100-mb. Surface, 1200 GMT, May 1962. Average Height and Temperature, and Resultant Winds.

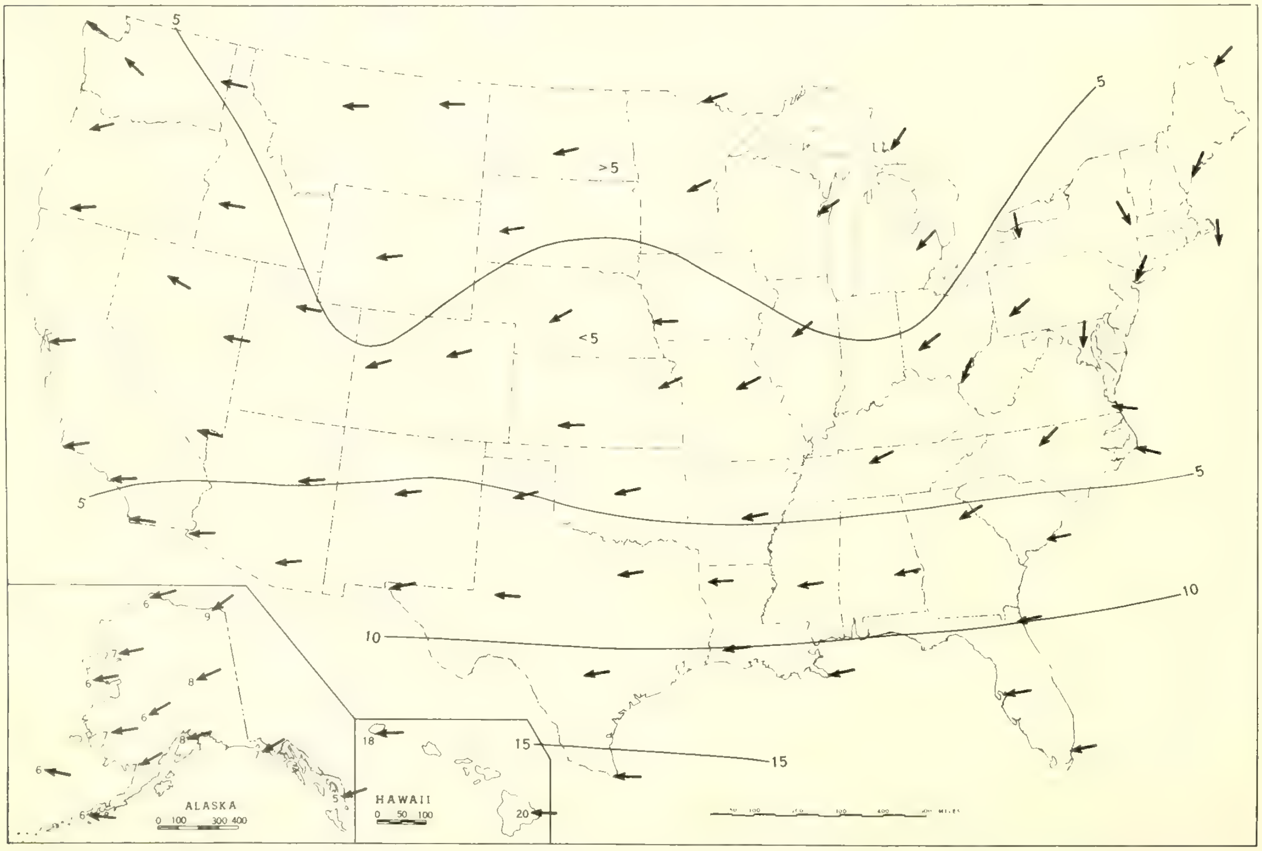


See Chart XI for explanation of map.

Chart XVII. A. 50-mb. Surface, 1200 GMT, May 1962. Resultant Winds.



B. 30-mb. Surface, 1200 GMT, May 1962. Resultant Winds.



Wind speed (isotachs) in knots. Arrows show resultant wind direction. All wind data are based on rawin observations.

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CLIMATOLOGICAL DATA

NATIONAL SUMMARY

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Volume 13 No. 6

ASHEVILLE: 1962

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NOTE: Delayed data and corrections will be carried in the June and December issues of this publication.

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CLIMATOLOGICAL DATA

NATIONAL SUMMARY

Volume 13 No. 6 JUNE 1962

GENERAL SUMMARY OF WEATHER CONDITIONS

June was highlighted by below-normal temperatures over most of the country with heavy precipitation continuing in the Great Plains and extending into Texas and much of the South. Many windstorms were reported from the northern Great Plains and upper Mississippi Valley.

TEMPERATURE.--The month averaged 1° to 2° cooler than usual over most of the Nation, with a 4° below-normal area centered over the Texas Panhandle and another area centered over western Alaska. In contrast, slightly warmer than usual weather, with a few areas 2° above normal, prevailed over the southern Lake region and Northeast, in Alabama and Florida, and from the Nevada-Utah area northward to Idaho and Montana and thence eastward over North Dakota and northwestern Minnesota. Several new records were set, when for the first time the June average temperature was below that for May at Cairo, Ill., since 1872; at Nashville, Tenn., since 1871; and at Greenville, S. C., since 1893. Average maximum temperature of 84.6° at Charleston (City), S. C., was the lowest maximum temperature for June of record. Readings at Tucson, Ariz., set a new lowest average temperature record for June since 1945 with 80.3°. During the middle of the month Las Vegas set two daily records, with 76° the lowest maximum temperature on the 14th and 52° the lowest minimum temperature on the 15th. Duluth, Minn., reported 31° on the 12th and 32° on the 13th for the coldest so late in the season. Blue Hill Observatory, Milton, Mass., reported 65° on the 11th for the highest minimum temperature for June of record, while Fresno, Calif., experienced a maximum temperature of 65° on the 14th for the lowest maximum so late in June.

While the northern Rocky Mountain region was warmer than usual for the month, during the first week several lowest temperature records for the month were set -- at Spokane, Wash., with 33.8° on the 6th; Boise, Idaho, 33° on the 4th (since 1901); and Burns, Oreg., 25° on the 4th with freeze damage. At Pocatello, Idaho, 31° on the 7th was the second coldest in June of record, with freeze damage also reported. Considerable frost damage on the 4th also occurred in northern California.

PRECIPITATION.--Monthly totals were below normal for almost all of the area west of the Rockies, with some sections in California, Arizona, and New Mexico receiving no rain at all during the month. Below-normal conditions also existed in many sections of the Midwest, Lake Region, Middle Atlantic States, and New England, and in central Mississippi and central Florida. In contrast, heavy precipitation fell in two wide belts: (1) from eastern Montana southward through the Great Plains and down to the Gulf States, where drought conditions were temporarily broken in southern Texas, Louisiana, Alabama, and Florida (although central Mississippi and Alabama still need more rain); (2) and from Tennessee eastward through the Atlantic coastal areas of southern Virginia, the Carolinas, and Georgia. In Alaska, heavy precipitation was reported in the west and south and light amounts in the north and in the eastern Aleutians. In Hawaii the islands of Oahu and northern Hawaii were very dry, while on Kauai precipitation was above normal.

With these sharply contrasting conditions of drought and above-normal precipitation, many new June records were set. Some of the driest for June were Sault Ste. Marie, Mich., (0.63 inch) since 1921 and the second lowest of record; Akron, Ohio, (1.38 inches) with an 18.63-inch deficit for the past 17 months; Dayton, Ohio, (0.32 inch) since 1883; and Parkersburg, W. Va., (1.04 inches) since 1889. Very dry conditions, with grass and crops suffering from low soil moisture prevailed in Indiana, Ohio, Pennsylvania, New York, and Massachusetts. Shifting to the Southwest and Far West, where dry conditions also existed, we find at El Paso, Tex., no measurable rain since April 26; at Phoenix, Ariz., 41 days of no precipitation, and also a 98-day period of no measurable precipitation ended on the 27th. Pastures and ranges were very dry at Grand Junction, Colo., and 50 percent of normal at Salt Lake City, Utah, (0.49 inch). One large fire was reported at Eureka, Calif., and the fire hazard continues. The Far Northwest was also very dry. Some examples are: Medford (0.15 inch) 15 percent of normal and Pendleton (0.15). Oreg., the fourth driest June since 1900 (pea crop damaged); Yakima (0.07 inch), second least, and Stampede Pass (1.99 inches), Wash., also second least. Kalispell, Mont., reported the sixth consecutive month with below-normal precipitation. Across to the Mid-Pacific, extreme drought conditions existed in northern Hawaii and it was very dry at Kahului, Oahu. In Alaska, Barter Island reported 0.13 inch and Cold Bay 0.12 inch, both stations tying their least of record for June.

Many June records toppled with the heavy precipitation in the Great Plains, the East, and South. Among the stations reporting the greatest amounts for June were Goodland, Kans., (7.64 inches) since 1928; Fort Worth, Tex., (6.94) since 1941; Amarillo, Tex., (10.16) since 1892; New Orleans (City), La., (10.91 inches) since 1942, with 19 days measurable precipitation for the greatest number for June since 1890; Oak Ridge, Tenn., (8.09 inches); Nantucket, Mass., (5.90 inches) since 1941; Philadelphia, Pa., (7.40 inches) in the last 24 years, also relieved drought; Wilmington, N. C., (12.87 inches) since 1871, coastal storm caused major crop damage; Spartanburg, S. C., (10.96 inches); Charleston (City), S. C., (14.29 inches), since 1871, severe crop loss from heavy rain with serious flooding (an article on floods appears in this publication); and Anchorage, Alaska, (3.40 inches).

Some additional stations with heavy rains: Glasgow, Mont., the January-June total (8.48 inches) was more than the 1960 annual and 0.50 inch less than the 1961 annual; Huron, S. Dak., January-June (21.84 inches) greatest for any year since 1882; Valentine, Nebr., (6.84 inches) the third wettest June in 74 years and the third wettest January-June since 1892; Cheyenne, Wyo., the wettest 3 months (April-June) in the last 50 years; Sioux, City, Iowa, (7.63 inches), third wettest with January-June (20.14 inches) 80 percent of the normal annual. In Texas, Abilene reported 7.65 inches, the third wettest since 1895 and Austin, 8.21 inches which was 2-1/2 times the normal; at Corpus Christi, Texas, the drought (October 1961-May 1962) was broken on the 1st, but not before considerable damage was done to crops; Port Arthur, the 5 months of drought relieved on the 1st-4th, but totals still below normal. The drought was also broken in southern Mississippi, Alabama, Georgia, and in Florida where Jacksonville had above-normal precipitation for the first time in 10 months and at Fort Myers (12.08 inches) for the first time in 9 months. Cape Hatteras, N. C., reported 10.80 inches for the month, the normal being 4.14 inches. On the west coast, Burbank, Calif., reported only 0. 03 inch for June, but the seasonal total was 22. 20 inches, which is 7. 67 inches above normal for the highest seasonal since the 1951-52 season. At Reno, Nev., the reservoir storage was sufficient for all essential irrigation. Cordova, Alaska, with 7.36 inches was over 100 percent above normal for the period.

DESTRUCTIVE STORMS.--Many tornadoes were sighted in June, 4 of which were in Wyoming (first ever sighted at Lander). In Texas, a tornado was reported at Corpus Christi on the 1st and another at Amarillo, Texas, on the 14th; the latter causing an estimated $6 million property damage in the Panhandle. Hailstorms on the 1st caused an estimated $1 million property damage in Abilene, Texas, and extensive crop damage north and east of that city.

The north-central section of the country was hit by many wind- and hailstorms during the month. Among the localities struck by severe storms were Havre, Mont., on the 12th, with major flooding and hail damage; Glasgow, Mont., on the 20th, considerable damage; Glendive, Mont., windstorm on the 5th with 100-m. p. h. gusts; Worthington, Minn., on the 17th, 100 m. p. h., gust caused damage; Crystal, Minn., on the 23d, hailstorm with golf-ball size hail caused severe damage; Waterloo, Iowa, on the 17th, windstorm caused heavy damage; La Crosse to Viroqua, Wis., on the 18th, severe winds caused considerable damage; St. Joseph, Mo., on the 22d, windstorm with 75-m. p. h. gusts; and Buffalo, N. Y., on the 18th, 19th, and 25th lightning caused fire damage. (Storm reports appear in this publication and also in STORM DATA.)

CONDENSED CLIMATOLOGICAL SUMMARY

Section	Temperature						Precipitation			
	Monthly extremes						Monthly extremes			
	Station	Highest	Date	Station	Lowest	Date	Station	Greatest	Station	Least
		°F			°F			In.		In.
Alabama	5 Stations	98	24+	Valley Head	48	15	Coden	10.66	Tuskegee 2	1.84
Arizona	Dateland	117	24	2 Stations	23	17+	Valle	1.82	18 Stations	.00
Arkansas	3 Stations	99	24+	do	49	15+	Stuttgart	13.07	Greenbrier	2.34
California	2 Stations	117	27+	White Mountain 2	11	15	Mineral	1.44	268 Stations	.00
Colorado	3 Stations	100	28+	Hermit 7ESE	21	18+	Wray	10.95	2 Stations	T
Connecticut	2 Stations	92	17+	Coventry	35	4	Brooklyn	6.64	Baltic	2.58
Delaware	Dover	96	19	Georgetown 5SW	51	10+	Bridgeville 1NW	5.09	Wilmgton Ncastle WBAP	3.05
Florida	2 Stations	100	27	Steinhatchee McCain Tower	57	30+	Lake Placid 2SW	25.10	Key West WB Airport	2.86
Georgia	Hartwell	99	24	2 Stations	48	16+	Fleming Exp Station	18.82	Cartersville	1.68
Idaho	3 Stations	105	25	do	20	6+	Kilgore	2.70	Caldwell	.02
Illinois	Harrisburg	99	18	5 Stations	43	13	Barry	8.52	Streator 3N	.93
Indiana	2 Stations	97	19+	3 Stations	43	14+	Logansport Radio WSAL	6.24	Indianapolis SE Side	.25
Iowa	Shenandoah	95	23	do	40	13+	Sioux City WBAP	7.63	New Hampton 1E	.93
Kansas	2 Stations	100	28+	Eureka	38	19	Mankato	10.89	Bonner Springs	1.45
Kentucky	Russellville	97	19	2 Stations	47	17+	Hazard Water Works	10.88	Williamstown 5WSW	1.62
Louisiana	Elizabeth 1NW	98	17	Covington 4NNW	55	1	Elizabeth 1NW	12.67	Mansfield 3WSW	1.53
Maine	Corinna	96	16	2 Stations	31	4	Ripogenus Dam	3.87	The Forks	.61
Maryland	Baltimore WB City	96	18	Oakland 1SE	42	30	Snow Hill	7.08	Boonsboro	1.47
Massachusetts	Middleton	96	11	Chestnut Hill	36	4	Edgartown	6.61	Amherst	1.06
Michigan	2 Stations	95	18+	Watersmeet Fish Hatch	26	2	Lapeer Press Farm	7.88	Sault Ste. Marie WBAP	.63
Minnesota	Minneapolis WBAP	95	28	Cook 18W	26	2	Springfield	7.68	Grand Portage R S	1.35
Mississippi	3 Stations	98	25+	Batesville	50	15	Vancleave	13.04	Vaiden 1SSW	.63
Missouri	2 Stations	100	29+	Berryman 6NW	42	14	Carthage	9.24	King City	.53
Montana	Miles City	104	26	Yellowstone Park NE	20	7	Medicine Lake 3SE	6.38	Troy	.49
Nebraska	3 Stations	95	29+	Harrisburg 10NW	33	1	Nenzel 20S	11.62	Weeping Water	1.91
Nevada	Sunrise Manor Las Vegas	113	26+	Mountain City RS	14	4	Montello	2.23	6 Stations	.00
New Hampshire	Campton	95	18	Fayban	28	4	Nashua	4.25	Woodstock	1.14
New Jersey	Burlington	97	19	2 Stations	40	4+	Audubon	9.49	Irvington	2.07
New Mexico	2 Stations	105	24	Augustine	15	16+	Pearl	5.79	8 Stations	.00
New York	Whitehall	95	18	2 Stations	3	10+	Ave. V, B'klyn, N. Y.	9.91	South Schroon	.55
North Carolina	2 Stations	96	20+	Parker 1E	40	16	Cedar Island	23.92	Jefferson	2.74
North Dakota	do	95	28+	Belcourt Indian Res	29	1	Wahpeton	8.79	Hansboro 3W	.47
Ohio	do	97	19+	5 Stations	41	21+	Ironton	5.09	New Carlisle	.20
Oklahoma	Hollis	99	23	Kenton	46	5	Buffalo	14.40	Kenton	1.95
Oregon	3 Stations	103	25+	Crater Lake NP HQ	13	5	Brightwood	2.98	7 Stations	.00
Pennsylvania	Scranton	97	19	2 Stations	33	3	Mercer 2NNE	7.74	Greensboro Lock 7	.59
Puerto Rico	3 Stations	95	26+	Mayaguez Airport	58	5	Rio Grande El Verde	26.77	Magueyes Island	1.10
Rhode Island	Providence WBAP	89	1	Kingston	42	9+	Block Island WBAP	6.81	Newport	4.74
South Carolina	Tilghman Forest Nursery	98	26	Chester 2WSW	49	30	Charleston WB Airport	16.07	Aiken	1.40
South Dakota	Fort Meade	95	27	Deerfield 5NW	25	5	Winner	9.92	Camp Crook	.90
Tennessee	3 Stations	97	24+	Mountain City 2	43	30	Dale Hollow Dam	8.97	Mountain City 2	2.42
Texas	2 Stations	111	17+	Mount Locke	45	3	Arthur City	11.82	Ysleta	.00
Utah	St George PH	106	25	2 Stations	19	8+	Orderville	3.19	Ferron	.00
Vermont	Cornwall	92	17	Waterbury 1NNE	26	9	Enosburg Falls	4.01	Union Village Dam	.35
Virginia	Richmond WB Airport	97	19	Monterey	40	15	Boykins	12.17	Newport 2NW	1.60
Washington	Smyrna	100	24	Rainier Paradise RS	23	4	Amanda Park	5.25	5 Stations	.00
West Virginia	3 Stations	95	23+	Canaan Valley	34	30	Camden on Gauley	6.44	Bens Run	.75
Wisconsin	2 Stations	95	17	2 Stations	26	12+	Oconto	6.86	2 Stations	1.07
Wyoming	do	100	27	Buffalo 15SW	20	5	Buffalo 15SW	6.00	Wamsutter 1N	.09

+ And also on an earlier date or dates.

NOTE: Dates in the above Condensed Climatological Summary apply to the period 24 hours prior to time of observation. In some cases the actual occurrence is on the calendar date preceding that shown. (See individual Climatological Data for times of observations).

CLIMATOLOGICAL DATA

ENGLISH UNITS

State and Station	Elevation (ground)	Pressure		Temperature												Average relative humidity	Precipitation							Wind					No. of days (sunrise to sunset)			Sky cover, tenths (sunrise to sunset)	Possible sunshine
												No. of days								No. of days		Snow, Sleet				Fastest mile							
		Station Ø	Sea level	Average maximum	Average minimum	Average	Departure from normal	Highest	Date	Lowest	Date	Max. 90°F. or above	Min. 32°F. or below	Average dew point		Total	Departure from normal	Greatest in 24 hours	.01 inch or more	With thunderstorms	Total	Maximum depth on ground	Average speed	Prevailing direction	Speed	Direction	Date	Clear, 0-3	Partly cloudy, 4-7	Cloudy, 8-10		
	Ft.	Mb.	Mb.	°F.	°F.	°F.	F.	°F.		°F.				F.	%	In.	In.	In.			In.	In.	M.p.h.		M.p.h.							%
ALABAMA																																
BIRMINGHAM	610	991.2	1016.3	90	68	79.0	1.1	96	24	59	15	17	0	65	66	3.59	-0.42	1.23	12	10	0.0	0	6.8	ESE	29	SW	18	4	13	13	6.4	65
HUNTSVILLE	605	993.2	1016.1	87	66	76.7	-1.9	96	18	56	15	7	0	64	70	4.68	1.31	1.33	13	11	0.0	0	6.6	ESE	33*	WSW	22	10	13	7	5.5	
MOBILE	211	1012.8	1015.1	89	72	80.6	0.6	95	7	68	9+	17	0	73	83	7.15	0.92	1.95	14	15	0.0	0	5.6	NE	28*	SE	17	1	15	14	7.3	
MONTGOMERY	195	1007.6	1015.8	90	69	79.7	0.3	96	17	65	16+	17	0	69	75	6.21	2.04	1.98	9	12	0.0	0	6.1	ENE	27	E	9+	3	16	11	6.1	54
ALASKA																																
ANCHORAGE	90	1007.8	1012.6	61	46	53.5	-1.0	73	30	39	3+	B 4	0	45	74	3.40	2.42	1.84	12	0	0.0	0	5.8	SSE	17*	SSE	23+	3	6	21	8.0	41
ANNETTE	110	1013.5	1017.6	59	47	53.1	-0.7	72	25	40	8	3	0	46	79	7.64	1.97	3.79	16	0	0.0	0	7.1	SSE	21*	SE	6+	2	5	23	8.4	
BARROW	22	1014.2	1014.9	40	29	34.5	1.4	61	30	21	5	0	22	31	87	0.17	-0.19	0.04	7	0	0.6	4	10.8	NNE	29*	E	1	1	7	22	8.2	
BARTER ISLAND	39	1012.2	1014.1	40	31	35.5	1.3	60	18	25	3	0	20	33	88	0.13	-0.37	0.06	5	0	0.7	1	10.5	ENE	38*	W	5	8	6	16	6.3	
BETHEL	125	1012.5	1014.0	59	42	50.2	-1.4	83	19	28	6	8	4	42	78	0.74	-0.44	0.24	11	0	0.3	T	13.5	NW	29*	SW	1	4	8	18	7.6	
COLD BAY	94	1014.2	1018.2	50	39	44.6	-0.7	65	19	32	6	0	1	40	87	0.12	-1.83	0.05	5	0	0.1	T	16.4	WNW	43*	SSE	8	2	5	23	8.5	
CORDOVA	40	1012.9	1014.5	55	42	48.5	-1.7	67	17	33	9	0	0	45	87	7.36	3.88	1.27	19	0	0.0	0	6.1	ESE	18*	SW	9	0	4	26	9.0	
FAIRBANKS	436	993.5	1010.8	70	47	58.6	0.2	86	19	38	5	13	0	43	58	2.22	0.83	1.27	7	2	0.0	0	7.4	SW	23*	NE	22+	3	13	14	7.1	
JUNEAU	17	1014.6	1015.4	56	44	49.9	-2.4	70	26	35	16	1	0	44	81	4.75	1.36	0.94	19	0	0.0	0	7.4	ESE	28*	ESE	5	2	1	27	9.1	14
KING SALMON	43	1011.2	1013.2	61	42	51.6	0.2	82	17	33	4	10	0	43	76	1.66	0.26	0.30	14	0	T	0	11.6	SW	28*	S	9	4	5	21	8.0	
KOTZEBUE	10	1012.5	1013.0	48	38	43.2	-0.6	58	30	29	6	0	8	39	87	1.06	0.57	0.36	12	0	1.3	5	10.2	WNW	23*	WNW	21	3	10	17	7.9	
MC GRATH	334	1000.0	1012.8	65	46	55.4	-1.1	87	20	33	5	9	0	42	64	1.46	-0.20	0.52	11	1	T	0	6.6	NNW	23*	SW	7+	2	8	20	7.7	
NOME	13	1012.9	1013.7	48	36	42.2	-3.7	64	22	25	6	0	6	38	85	0.43	-0.50	0.16	9	0	0.2	1	12.2	WSW	32*	NW	24	7	7	16	6.9	52
ST. PAUL ISLAND	22	1015.6	1016.4	46	35	40.6	-0.2	57	20	28	16	0	8	39	94	0.93	-0.22	0.33	15	0	T	T	14.2	S	35*	NW	22	4	2	24	8.6	
SHEMYA	122	1008.5	1012.1	46	40	43.2	1.4	54	10	38	20+	0	0	42	96	2.75	1.43	1.04	15	0	0.0	0	16.2	WSW	47*	WSW	7	1	0	29	9.5	
YAKUTAT	28	1013.9	1015.1	54	43	48.3	-2.2	65	24+	33	1	0	0	45	86	13.88	8.82	3.55	17	0	0.0	0	7.3	SE	26*	SE	5	2	2	26	8.9	
ARIZONA																																
FLAGSTAFF	6993	791.1	1013.0	77	40	58.2	-1.3	88	25	29	16	0	3	24	32	0.52	-0.17	0.44	3	5	0.0	0	7.5	S	31*	SSE	14	21	6	3	2.5	
PHOENIX	1109	969.5	1007.7	102	65	83.1	-2.5	113	25	56	16	28	0	36	20	0.12	0.03	0.12	2	3	0.0	0	5.1	E	26*	SSE	27	25	4	1	1.2	98
PRESCOTT	5014	846.3	1010.5	86	52	68.9	-1.5	97	26+	37	15	9	0	26	24	0.76	0.44	0.62	3	3	0.0	0	8.3	SSW	52	SW	3	21	6	3	2.1	92
TUCSON	2584	922.1	1007.9	97	64	80.3	-1.9	106	25+	50	16	28	0	32	20	0.25	-0.04	0.25	1	2	0.0	0	9.4	S	32	W	28	24	2	4	2.1	96
WINSLOW	4880	850.3	1010.8	90	52	70.8	-4.0	100	25+	43	16	15	0	24	22	0.14	-0.12	0.13	3	3	0.0	0	11.1	SW	40*	S	14	21	6	3	2.3	
YUMA	199	1002.4	1007.5	103	69	86.2	-1.5	115	24	57	15	28	0	42	25	T	-0.01	T	0	0	0.0	0	8.4	SSE	28	SE	26+	25	4	1	1.1	96
ARKANSAS																																
FORT SMITH	449	997.5	1014.3	89	66	77.6	-1.0	96	18	58	15+	13	0	68	76	2.63	-1.72	0.68	14	9	0.0	0	6.2	ENE	24	SW	9	5	11	14	7.1	55
LITTLE ROCK	257	1002.1	1015.0	88	68	77.7	-1.2	94	17	58	15	13	0	68	77	6.26	2.65	2.13	13	11	0.0	0	6.2	WSW	32	S	2	5	11	14	6.6	56
TEXARKANA	361		1013.4	87	69	77.9	-1.5	94	17	63	15	10	0	70	83	4.90	1.01	2.82	15	15	0.0	0	7.4	S								
CALIFORNIA																																
BAKERSFIELD	494	993.9	1011.2	92	63	77.7	0.6	105	19	53	4	20	0	46	35	0.00	-0.09	0.00	0	0	0.0	0	7.9	NNW	24*	NNE	13	28	1	1	0.8	
BISHOP	4108	871.3		89	50	69.5	-0.3	100	25	45	30+	18	0			0.17	0.08	0.13	2	0	0.0	0						25	3	2	1.6	
BLUE CANYON	5280	839.1		71	52	61.2	2.0	82	20	40	15+	0	0			0.04	-0.89	0.04	2	0	0.0	0	7.0	SSW	23	NNW	7	21	5	4	2.3	
BURBANK	699	986.8	1012.7	77	56	66.3	-1.7	90	26+	51	16	3	0	53	70	0.03	-0.02	0.03	1	0	0.0	0	7.6	S	17*	S	20+	15	11	4	4.2	
EUREKA U	43	1015.2		58	49	53.2	-2.3	68	2	45	13	0	0			0.11	-0.63	0.08	3	0	0.0	0	7.5	N$	29	N	2	7	13	10	6.1	60
FRESNO	326	998.6	1010.3	93	59	75.9	2.0	106	19	48	4	23	0	45	38	T	-0.07	T	0	0	0.0	0	7.6	WNW	28	NW	2	26	2	2	1.0	93
LONG BEACH	34	1011.9	1013.5	73	56	64.3	-2.8	82	25+	50	17	0	0	55	77	0.01	-0.02	0.01	1	0	0.0	0	7.6	S	21*	W	14	9	11	10	5.5	
LOS ANGELES	97	1009.8	1013.7	69	58	63.2	-0.1	78	26	55	24+	0	0	55	79	T	-0.05	T	0	0	0.0	0	7.2	WSW	21*	WSW	14	5	14	11	6.3	
LOS ANGELES U	312			75	58	66.3	-1.7	91	26	55	17+	1	0	54	71	T	-0.06	T	0	0	0.0	0	5.4	W$	21	W	14	16	5	9	4.5	60
MT SHASTA R	3544	892.0		77	45	61.1	0.8	88	22	29	4	0	1			0.03	-1.22	0.03	1	0	0.0	0						24	6		2.0	
OAKLAND	3	1013.5	1013.8	72	53	62.4	-0.4	95	19	47	4	2	0	49	66	T	-0.12	T	0	0	0.0	0	9.4	WNW	26*	WSW	13	11	18	1	3.8	
POINT ARGUELLO	367	1000.7		62	49	55.7	-1.2	78	19	45	27	0	0			0.08	0.03	0.06	4	0	0.0	0	7.8		23*	NW	25+	5	7	18	7.2	
RED BLUFF	341	998.3	1010.7	91	62	76.8	0.6	105	20	52	4	21	0	42	33	1.10	0.65	1.10	2	2	0.0	0	9.9	SSE	29	NW	3	26	2	2	1.8	97
SACRAMENTO	17	1010.5	1011.7	89	54	71.6	-0.9	105	20	48	5	16	0	49	53	0.01	-0.09	0.01	1	0	0.0	0	8.6	SSW	25	W	13	26	4		1.1	97
SACRAMENTO U	23			87	56	71.5	0.0	104	20	50	12	13	0			0.01	-0.11	0.01	1		0.0	0										
SANDBERG R	4517	861.8		76	55	65.6	0.8	91	26	38	15+	1	0			0.00	-0.03	0.00	0	0	0.0	0	12.9	NNW	38*	NNE	25	27	2	1	0.8	
SAN DIEGO	13	1010.2	1013.1	69	59	63.9	-1.8	75	25	56	25+	0	0	55	76	0.09	0.04	0.09	2	0	0.0	0	7.7	NW	20	NW	17	9	10	11	6.2	44
SAN FRANCISCO	8	1013.5	1014.4	70	50	59.8	-1.5	92	19	45	4	1	0	49	73	T	-0.11	T	0	0	0.0	0	13.0	WNW	46	WNW	2	17	12	1	3.0	
SAN FRANCISCO U	52			64	51	57.5	-1.6	88	19	48	5	0	0			T	-0.14	T	0	0	0.0	0	10.6	W$	30	W	13					66
SANTA MARIA	238	1005.8	1014.4	67	49	57.9	-1.7	79	18	36	4	0	0	51	81	0.03	-0.11	0.03	1	0	0.0	0	8.0	WNW	30*	NW	3	15	12	3	3.8	
COLORADO																																
ALAMOSA	7536	772.8		77	41	59.0	-1.0	86	28	30	7	0	4			0.52	0.03	0.23	5	7	0.0	0						17	12	1	3.6	

See footnotes at end of table

CLIMATOLOGICAL DATA

ENGLISH UNITS

JUNE 1962

State and Station	Elevation (ground)	Pressure		Temperature												Precipitation							Wind					No. of days (sunrise to sunset)				
												No. of days							No. of days		Snow, Sleet				Fastest mile							
		Station ⌀	Sea level	Average maximum	Average minimum	Average	Departure from normal	Highest	Date	Lowest	Date	Max. 90° F. or above	Min. 32° F. or below	Average dew point	Average relative humidity	Total	Departure from normal	Greatest in 24 hours	.01 inch or more	With thunderstorms	Total	Maximum depth on ground	Average speed	Prevailing direction	Speed	Direction	Date	Clear, 0-3	Partly cloudy, 4-7	Cloudy, 8-10	Sky cover, tenths (sunrise to sunset)	Possible sunshine
	Ft.	Mb.	Mb.	F.	F.	F.	F.	F.		F.				F.	%	In.	In.	In.			In	In.	M.p.h.		M.p.h.							%
COLORADO																																
COLORADO SPRINGS	6173	813.1	1014.3	76	49	62.9	- 1.3	92	28	39	9	1	0	43	56	3.36	1.77	1.24	14	14	0.0	0	9.5	S	29*	SW	14	9	17	4	5.1	
DENVER	5283	838.1	1012.2	80	51	65.5	- 1.5	95	28	41	9	2	0	42	50	1.52	0.08	0.82	10	13	0.0	0	9.2	SSW	32	W	22	11	11	8	5.3	69
GRAND JUNCTION	4849	857.1	1009.0	86	57	71.3	0.0	98	27+	45	17	13	0	26	22	0.30	-0.12	0.30	2	3	0.0	0	7.1	ESE	35	E	22	18	11	1	3.4	87
PUEBLO	4639	855.7	1011.6	85	53	68.9	- 2.2	97	28	44	9	10	0	45	50	0.78	-0.44	0.36	10	15	0.0	0	11.0	ESE	40	W	24	9	17	4	4.6	76
CONNECTICUT																																
BRIDGEPORT	7	1016.3	1017.3	77	59	67.9	- 0.1	88	18+	49	3	0	0	59	76	3.16	-0.24	1.64	10	4	0.0	0	10.9	WSW	38*	WSW	19	7	11	12	6.6	
HARTFORD	169	1010.0	1016.1	80	57	68.4	0.8	91	19	46	9	2	0	58	73	3.04	-0.66	1.28	9	4	0.0	0	7.4	S	33	NW	26	7	7	16	6.8	59
NEW HAVEN	6	1016.4		77	58	67.4	1.2	88	16	52	4+	0	0			3.13	-0.40	1.14	11	3	0.0	0	6.9		25	SW	19	7	12	11	6.4	66
DELAWARE																																
WILMINGTON	78	1013.4	1016.9	81	62	71.5	0.1	90	19+	55	8	2	0	60	71	3.05	-1.02	1.74	8	7	0.0	0	7.5	S	23*	SSE	22	5	12	13	6.5	
DIST.OF COLUMBIA																																
WASHINGTON U	72			83	65	73.7	- 0.2	94	19+	60	15+	5	0			3.52	0.10	0.81	8													
WASH NATL AP	14	1012.7	1017.2	82	66	73.8	- 0.4	94	19	61	22+	2	0	62	70	2.44	-0.77	1.05	9	5	0.0	0	6.8	S	42	NW	18	6	9	15	6.5	60
FLORIDA																																
APALACHICOLA U	13	1013.5		86	74	79.9	- 0.3	91	6	69	29	1	0			3.62	-1.68	1.61	11	9	0.0	0	6.1		23	NW	28	8	12	10	5.6	74
DAYTONA BEACH	31	1010.0	1016.8	87	70	78.6	0.2	91	7+	66	8	3	0	70	77	7.96	2.15	2.36	14	19	0.0	0	8.2	ESE	23*	WSW	20+	2	10	18	7.4	
FORT MYERS	13	1015.5		90	73	81.6	0.8	95	4	68	2	18	0			12.08	3.12	1.68	20	17	0.0	0	8.3		28*	NE	29+	2	15	13	6.9	
JACKSONVILLE	24	1015.4	1016.8	90	72	80.7	- 0.1	96	27	69	21+	14	0	71	76	8.22	1.89	4.19	19	16	0.0	0	7.2	E	54	E	14	2	19	9	6.3	49
KEY WEST	5	1014.8	1016.0	88	78	82.8	1.0	91	28	71	14	3	0	73	73	2.86	-1.11	1.54	12	7	0.0	0	9.4	SE	27	NW	8	3	14	13	6.9	68
LAKELAND U	214			89	72	80.4	- 0.2	94	27	66	1	15	0			7.70	0.50	2.86	18	25	0.0	0	5.5					1	13	16	7.4	62
MIAMI BEACH	9			87	76	81.2	- 0.3	94	6	71	1	3	0			9.11	4.08	2.32	22		0.0	0	5.8		27	N	20	2	13	15	7.1	47
MIAMI	7	1015.2	1016.3	87	74	80.0	- 0.8	91	28+	69	1	3	0	72	79	10.36	2.99	2.50	20	15	0.0	0	6.8	SE	31*	S	20	2	13	15	7.4	
ORLANDO	106	1012.0	1016.6	91	72	81.6	1.3	97	27	68	9	20	0	71	77	3.11	-3.85	1.12	12	15	0.0	0	7.9	S	32*	S	8	0	16	14	7.1	
PENSACOLA U	13			86	73	79.6	- 0.9	90	27+	67	25+	2	0			3.47	-1.75	1.05	11	7	0.0	0	8.2	SE	26	NE	24					73
TALLAHASSEE	58	1013.4	1016.1	90	69	79.9	- 0.3	97	6	65	2	21	0	69	77	6.98	0.44	1.35	16	14	0.0	0	7.9	E	37*	SE	27+	3	19	8	6.2	
TAMPA	19	1016.4	1016.3	88	72	79.6	- 1.0	93	28	66	2	5	0	71	79	6.34	-0.94	1.86	12	16	0.0	0	8.9	SSE	48*	NE	28	3	13	14	7.0	58
WEST PALM BEACH	15	1015.4	1016.5	88	72	80.0	- 1.0	94	6	68	8	7	0	72	81	6.94	-0.59	1.48	18	14	0.0	0	7.5	SE	32*	WSW	8	1	12	17	7.5	
GEORGIA																																
ATHENS	803	988.0	1016.8	86	66	75.8	- 1.8	95	24	58	30	7	0	67	78	4.12	0.24	0.86	10	9	0.0	0	6.6	ENE	21*	SW	26+	3	14	13	6.8	
ATLANTA	1005	975.0	1015.9	85	66	75.5	- 1.3	91	26+	58	15	4	0	67	79	4.39	0.56	1.02	17	13	0.0	0	6.3	ENE	23*	NNE	6	5	13	12	5.9	69
AUGUSTA	143	1009.4	1016.1	88	67	77.6	- 1.3	95	24	52	30	8	0	68	77	5.17	2.13	1.51	14	14	0.0	0	5.4	SE	30*	E	7	3	14	13	6.8	
COLUMBUS	385	1002.3		89	68	78.9	- 0.5	95	24	63	30+	14	0			2.59	-1.09	0.65	13	13	0.0	0	7.6		29*	WSW	19+	2	15	13	6.4	
MACON	356	1002.1	1015.6	90	69	79.1	- 1.6	95	26	62	30	18	0	68	74	3.35	0.01	0.80	14	14	0.0	0	7.8	NE	36	SSE	11	3	14	13	6.6	57
ROME	637	993.5		87	64	75.2	- 1.2	93	18+	55	15	7	0			4.82	1.06	1.69	15	14	0.0	0						5	16	9	5.6	
SAVANNAH	48	1014.3	1016.9	87	68	77.6	- 2.1	94	24	62	30	5	0	70	81	10.19	5.10	2.20	19	16	0.0	0	6.7	NNE	42	N	22	4	8	18	7.0	62
THOMASVILLE U	283			91	70	80.3	- 0.5	96	27	66	3+	22	0			6.25	1.43	1.80	11	15	0.0	0						5	14	11	6.1	
HAWAII																																
HILO	31	1015.9		82	66	74.3	0.0	89	1	64	23+	0	0	66	75	3.25	-3.54	0.92	17	0	0.0	0	7.8	WSW	23*	ESE	2+	1	14	15	7.0	32
HONOLULU	7	1016.6	1017.0	85	72	78.6	0.7	88	24	69	16+	0	0	65	66	0.11	-0.22	0.08	4	0	0.0	0	12.5	ENE	30	NE	26	5	17	8	5.8	66
LIHUE	115	1012.2	1017.6	84	71	77.7	1.1	86	27+	66	18	0	0	67	71	3.60	2.14	1.65	11	0	0.0	0	11.7	ENE	25	NE	8+	5	14	11	6.2	68
IDAHO																																
BOISE	2838	917.0	1011.9	81	50	65.5	0.7	102	25	33	4	4	0	42	47	0.12	- .77	0.06	5	7	0.0	0	8.5	NW	38	SW	18	13	10	7	4.2	84
IDAHO FALLS 42NW R	4790			77	44	60.3	0.5	92	25	27	7	1	1			1.36	0.12	0.61	7						31Y	SW	27					
IDAHO FALLS 46W R	4933	846.9		77	45	61.0	1.2	92	25	27	7	2	2			1.77	0.68	0.82	9	2	0.0	0	7.7	WSW	31A	SSW	12					
LEWISTON	1413	962.4		79	51	64.8	0.0	97	25+	38	4	3	0			0.98	-0.75	0.11	7	1	0.0	0						10	13	7	4.9	
POCATELLO	4444	862.2	1012.8	79	48	63.5	1.0	96	25	31	7	3	1	38	43	0.37	-0.59	0.17	6	6	0.0	0	9.5	WSW	42	SW	12	9	16	5	5.0	70
ILLINOIS																																
CAIRO U	314	1002.5		85	68	76.7	- 1.2	94	6	60	14	5	0			3.63	-0.50	1.13	14	14	0.0	0	6.4	S$	26	NW	21+	6	10	14	6.3	71
CHICAGO O HARE	658	991.7	1016.2	80	56	67.9		91	29	44	13	4	0	56	66	2.13		0.77	8	5	0.0	0	8.7	NNE	23*	NNW	22+	11	6	13	5.6	
CHICAGO MIDWAY	610	993.7	1016.4	81	61	70.9	0.2	95	18+	51	13+	7	0	55	62	2.56	-1.51	1.44	8	6	0.0	0	9.6	NE	29	SW	9	9	9	12	5.4	77
MOLINE	582	998.7	1015.1	82	59	70.6	- 0.8	93	17	46	13	6	0	60	70	1.48	-1.89	0.60	7	6	0.0	0	8.0	SSW	32	SW	10	8	9	13	5.9	76

See footnotes at end of table

CLIMATOLOGICAL DATA
ENGLISH UNITS

State and Station	Elevation (ground)	Pressure		Temperature											Average relative humidity	Precipitation							Wind					No. of days (sunrise to sunset)			Sky cover, tenths (sunrise to sunset)	Possible sunshine
												No. of days							No. of days		Snow, Sleet				Fastest mile							
		Station Ø	Sea level	Average maximum	Average minimum	Average	Departure from normal	Highest	Date	Lowest	Date	Max. 90° F. or above	Min. 32° F. or below	Average dew point		Total	Departure from normal	Greatest in 24 hours	.01 inch or more	With thunderstorms	Total	Maximum depth on ground	Average speed	Prevailing direction	Speed	Direction	Date	Clear, 0-3	Partly cloudy, 4-7	Cloudy, 8-10		
	Ft.	Mb.	Mb.	°F.	F.	F.	F.	F.		°F.				°F.	%	In.	In.	In.			In.	In.	M.p.h.		M.p.h.							%
ILLINOIS																																
PEORIA	652	994.1	1016.3	82	60	71.0	- 0.7	91	28	47	13	4	0	58	65	2.11	-1.97	0.95	5	5	0.0	0	9.3	S	29	SW	9	10	7	13	5.6	71
ROCKFORD	728	989.1	1016.1	80	58	69.0	- 0.7	92	17	48	13+	1	0	56	67	1.88	-2.42	0.80	10	8	0.0	0	9.7	ENE	25*	W	18	9	7	14	5.9	
SPRINGFIELD	588	992.1	1015.1	85	63	74.0	1.0	95	18+	49	13	7	0	61	67	3.62	-0.83	2.11	10	9	0.0	0	9.1	S	38	W	24	8	7	15	5.9	72
INDIANA																																
EVANSVILLE	381	1000.3	1016.0	85	64	74.4	- 0.4	96	18	52	14	3	0	65	76	2.73	-1.01	0.86	11	8	0.0	0	5.2	SE	38	NW	24	9	7	14	5.9	76
FORT WAYNE	791	985.9	1016.7	83	60	71.3	1.2	92	18	49	14	4	0	58	66	2.13	-2.04	0.99	8	7	0.0	0	9.2	SW	26	SW	18+	7	15	8	5.7	77
INDIANAPOLIS	793	986.8	1016.3	84	62	73.2	2.1	96	18	50	14	6	0	60	67	1.45	-3.17	0.85	8	9	0.0	0	6.8	SW	21*	WSW	10	8	11	11	5.9	74
SOUTH BEND	768	988.4	1016.3	80	58	69.0	0.0	93	18	48	2	3	0	57	68	5.02	1.44	2.14	7	6	0.0	0	9.1	SSW	28*	WNW	21	9	10	11	5.5	
IOWA																																
BURLINGTON	694	990.6	1016.0	83	61	71.8	- 0.3	92	28+	52	14+	5	0	60	68	2.37	-2.64	0.90	8	5	0.0	0	9.3	ENE	33	NW	10	11	8	11	5.3	80
DES MOINES	948	984.6	1015.6	81	62	71.3	- 0.6	90	28+	51	3+	2	0	61	72	3.96	-0.75	2.60	7	7	0.0	0	5.9	S	28	SW	10	7	10	13	6.2	70
DUBUQUE	1065	990.6		77	57	67.2	- 0.7	88	29+	45	13	0	0	57	64	2.67	-1.54	0.70	9	6	0.0	0			27*	WNW	22+	7	8	15	6.4	
SIOUX CITY	1095	974.1	1014.8	79	60	69.5	- 1.4	90	28	47	1	1	0	61	77	7.63	3.30	1.47	13	10	0.0	0	8.5	SSE	47	NW	16	4	12	14	6.7	61
WATERLOO	868	983.6	1015.8	80	59	69.5	- 0.1	91	17	49	13	3	0	60	73	2.91	-1.92	0.98	7	5	0.0	0	8.7	ESE	40*	W	17	7	12	11	6.1	
KANSAS																																
DODGE CITY	2594	926.4	1013.0	82	60	70.9	- 3.5	91	20	47	2	3	0	59	70	5.68	2.65	1.52	10	14	0.0	0	11.5	SSE	42	NW	22	8	12	10	5.7	67
GOODLAND	3645	887.7	1012.8	80	54	67.2	- 2.5	94	28	44	9	3	0	55	70	7.64	4.98	2.44	15	13	0.0	0	13.5	SSE	58*	NW	23	10	9	11	5.4	
TOPEKA	877	979.0	1014.1	83	62	72.5	- 2.2	91	17	52	14	1	0	64	77	4.46	-0.05	1.47	13	14	0.0	0	10.1	S	45	N	22	3	13	14	7.0	62
WICHITA	1321	965.2	1013.1	84	66	75.1	- 1.4	97	17	58	4	7	0	63	70	4.80	0.59	1.30	11	11	0.0	0	11.0	SSE	50	N	21	2	17	11	6.5	58
KENTUCKY																																
COVINGTON	869	985.2	1016.7	85	60	72.4	- 0.4	93	18	49	14	3	0	61	71	4.40	0.51	1.54	11	8	0.0	0	6.2	SW	24*	NNW	5	8	10	12	6.0	
LEXINGTON	979	981.3	1016.7	83	63	72.9	- 0.7	90	18	52	14	1	0	63	75	4.68	-0.04	1.92	13	10	0.0	0	5.0	SE	24*	NNW	24	10	10	10	5.5	
LOUISVILLE	474	998.7	1016.1	83	63	73.4	0.0	92	18	54	15	1	0	65	77	4.75	0.76	2.33	11	8	0.0	0	6.0	SSE	29	N	10	10	10	10	5.3	55
LOUISIANA																																
ALEXANDRIA	92	1011.0	1015.5	88	68	77.9	0.0	92	18	62	5	9	0	70	83	7.06		2.13	16	19	0.0	0	4.2	S				5	15	10	6.3	
BATON ROUGE	64	1012.4	1015.3	88	70	78.7	- 1.7	92	9	65	1	9	0	71	83	11.36	7.27	3.96	16	18	0.0	0	5.1	ESE				2	17	11	6.7	
BURRWOOD R	5		1015.8	87	77	81.9	0.8	91	24	71	12	4	0	73	77	4.96	0.71		9	17	0.0	0	7.3	SW								
LAKE CHARLES	14	1013.5	1014.9	88	71	79.6	- 1.6	93	24+	67	5+	12	0	73	83	5.33	0.61	3.28	10	12	0.0	0	7.0	S	23	SSW	30+	1	17	12	7.0	
NEW ORLEANS	3	1013.2	1015.2	88	70	79.3	- 0.3	94	27	66	30	6	0	73	84	8.87	4.44	3.42	14	16	0.0	0	5.4	SSE	38*	W	19	1	17	12	6.6	
NEW ORLEANS AUDUBON	10	1008.7		89	72	80.1		93	28+	68	8	12	0			10.91		2.60	19	23	0.0	0										
SHREVEPORT	252	1006.1	1015.3	88	69	78.6	- 2.0	93	24+	65	10+	9	0	69	76	4.70	1.36	2.29	11	14	0.0	0	7.8	SSE				7	15	8	5.9	64
MAINE																																
CARIBOU	624	990.8	1013.9	72	49	60.6	1.6	88	29+	40	8+	0	0	49	71	2.36	-1.71	0.51	12	3	0.0	0	9.9	SW	35*	NW	17	5	8	17	7.0	
PORTLAND	61	1011.5	1015.7	74	50	62.3	0.2	88	17	40	4	0	0	53	74	2.65	-0.53	1.19	10	3	0.0	0	8.4	S	27	W	17+	7	9	14	6.4	65
MARYLAND																																
BALTIMORE	146	1012.1	1017.0	83	62	72.3	- 0.2	95	19+	54	7	3	0	61	70	3.16	-0.13	2.45	6	3	0.0	0	8.1	W	22	SW	10	6	11	13	6.2	50
BALTIMORE U	14			84	68	75.5	0.8	96	18	60	14+	5	0			2.75	-1.12	1.60	9													
FREDERICK	294			82	60	70.9	- 0.4	92	18	52	8	2	0			2.52	-1.08	0.93	7		0.0	0										
MASSACHUSETTS																																
BLUE HILL OBS R	629	992.0	1015.1	76	55	65.5	0.4	87	17+	48	14+	0	0		76	2.57	-1.18	1.05	10		0.0	0	12.4	SSW	33	NW	1					60
BOSTON	15	1011.0	1015.8	78	59	68.4	0.6	92	17	51	14	3	0	55	67	2.33	-1.15	1.27	10	4	0.0	0	12.6	SSW	36	W	1	6	10	14	6.7	64
NANTUCKET	43	1015.9	1016.7	68	55	61.9	1.1	77	26+	46	28	0	0	56	85	5.01	2.09	1.69	7	1	0.0	0	12.1	SW	29	NE	6	7	4	19	7.2	63
PITTSFIELD	1170			76	51	63.5	0.4	87	17	39	9+	0	0			1.75	-2.53	0.99	6		0.0	0										
WORCESTER	986	979.7	1016.2	75	55	65.0	0.4	86	16	44	3	0	0	53	67	3.16	-0.78	1.49	9	4	0.0	0	7.6	W	19*	W	17	6	8	16	6.9	
MICHIGAN																																
ALPENA	689	991.9		74	46	59.8	- 2.3	90	29	30	3	1	1	49	57	2.94	0.27	1.09	12	7	0.0	0	6.3	SE$	22	NE	11	9	10	11	5.7	69
DETROIT	619	990.7	1017.2	79	60	69.1	- 0.1	90	29+	44	3	2	0	56	66	4.93	2.10	1.68	11	9	0.0	0	8.4	N	30	N	25	9	10	11	5.6	59
DETROIT M WAYNE CO	633	992.7	1016.9	80	57	68.4	0.0	90	30+	43	3	3	0	55	66	2.65	-0.66	0.70	13	7	0.0	0	7.8	NNE				8	10	12	5.7	
DETROIT WILLOW RUN	711	988.5	1016.7	82	57	69.5	- 0.1	94	17	40	3	2	0	57	66	3.01	-0.27	1.09	12	6	0.0	0	7.0	SW	21	NNW	18+	8	12	10	5.7	
ESCANABA U	594	994.5		69	51	60.0	- 1.1	85	29	36	2	0	0		76	3.28	0.12	1.38	11	7	0.0	0	9.2		36	NW	23	9	10	11	5.7	67

See footnotes at end of table

CLIMATOLOGICAL DATA

ENGLISH UNITS

JUNE 1962

State and Station	Elevation (ground)	Pressure		Temperature										Average dew point	Average relative humidity	Precipitation							Wind					No. of days (sunrise to sunset)			Sky cover, tenths (sunrise to sunset)	Possible sunshine
		Station Ø	Sea level	Average maximum	Average minimum	Average	Departure from normal	Highest	Date	Lowest	Date	No. of days: Max. 90° F. or above	No. of days: Min. 32° F. or below			Total	Departure from normal	Greatest in 24 hours	No. of days: .01 inch or more	No. of days: With thunderstorms	Snow, Sleet: Total	Snow, Sleet: Maximum depth on ground	Average speed	Prevailing direction	Fastest mile: Speed	Fastest mile: Direction	Fastest mile: Date	Clear, 0-3	Partly cloudy, 4-7	Cloudy, 8-10		
	Ft.	Mb.	Mb.	F.	F.	F.	F.	F.		F.				F.	%	In.	In.	In.			In.	In.	M.p.h.		M.p.h.							%
MICHIGAN																																
FLINT	766	989.7	1017.5	77	54	65.5	- 1.7	87	29+	37	3	0	0	56	73	5.31	2.19	1.84	12	8	0.0	0	7.7	SW	28*	ESE	18	9	9	12	5.9	
GRAND RAPIDS	681	991.8	1016.9	80	56	68.2	0.8	90	30+	44	2	2	0	53	61	1.11	-2.20	0.38	6	4	0.0	0	9.2	E	28	W	18	9	11	10	5.7	67
LANSING	852	985.0	1016.8	79	54	66.3	- 1.1	88	30+	37	3	0	0	55	68	2.91	-0.43	0.73	13	5	0.0	0	11.2	S	56	N	18	8	13	9	5.9	78
MARQUETTE U	677	990.0		67	49	57.6	- 2.5	90	28	35	3	1	0			2.16	-1.30	0.65	11	5	0.0	0	6.0	SE$	35	SW	16	8	9	13	6.1	65
MUSKEGON	627	993.7	1016.7	79	56	67.4	2.2	88	8	44	2	0	0	55	67	1.44	-1.26	0.45	7	6	0.0	0	8.8	WNW	23*	NW	23	10	8	12	5.8	
SAULT STE MARIE	721	994.4	1017.2	70	48	58.9	0.4	83	28	36	3	0	0	48	70	0.63	-2.67	0.42	6	1	0.0	0	8.3	WNW	22*	WNW	1	10	7	13	5.7	66
MINNESOTA																																
DULUTH	1426	975.7	1017.3	69	45	56.8	- 2.5	87	28	30	2	0	3	46	69	3.01	-1.26	0.93	7	7	0.0	0	9.0	ESE	45	SW	16	6	10	14	6.5	59
INTERNATIONAL FALLS	1179	975.1	1016.1	73	50	61.6	1.7	85	28	33	2	0	0	51	70	3.45	-0.42	1.22	12	7	0.0	0	6.2	S	46*	S	28	5	11	14	6.7	
MINNEAPOLIS	822	982.9	1016.0	77	55	66.0	- 1.3	95	28	43	3	2	0	56	72	1.48	-2.52	0.58	7	6	0.0	0	10.3	SE	41	NW	28	9	6	15	6.2	55
ROCHESTER	1297	969.0	1016.5	76	55	65.9	- 0.6	92	28	44	3	1	0	57	76	2.61	-1.85	1.44	5	6	0.0	0	10.0	S				8	6	16	6.4	
ST CLOUD	1034	978.4	1016.2	76	54	64.9	- 0.3	92	28	39	3	1	0	41	72	2.93	-1.56	1.20	11	6	0.0	0						11	4	15	6.0	
MISSISSIPPI																																
JACKSON	305	1003.2	1015.2	89	68	78.5	- 0.9	94	17	66	21+	12	0	68	74	1.36	-2.49	0.51	10	16	0.0	0	5.9	SE	31	SW	1	5	15	10	6.2	69
MERIDIAN	292	1002.1	1015.8	91	66	78.5	- 1.0	98	22	62	22+	16	0	68	77	1.80	-2.27	0.83	11	11	0.0	0	5.0	S	32*	WSW	25	4	19	7	5.9	
VICKSBURG U	234	1006.2		87	69	77.8	- 1.9	92	22+	65	14+	6	0			3.22	-0.23	0.79	13	13	0.0	0	6.3		25	S	18+	5	13	12	6.2	72
MISSOURI																																
COLUMBIA	778	986.4	1014.3	84	62	73.1	- 0.9	93	29	51	14+	6	0	63	74	1.41	-2.93	0.47	11	8	0.0	0	7.9	SSE	32	NW	24	7	10	13	6.0	61
KANSAS CITY	742	979.8	1014.0	84	66	74.7	- 0.7	92	17	57	13	5	0	64	73	2.93	-1.64	0.95	8	6	0.0	0	7.7	S	42	NW	18	7	9	14	6.7	65
ST JOSEPH	809	980.4		83	63	73.2	- 0.8	92	17	55	13	3	0			5.07	-0.86	1.17	11	9	0.0	0	9.2	S	58*	W	22	8	13	9	5.8	
ST LOUIS	535	994.9	1015.4	84	64	74.0	- 1.6	93	18	54	14+	3	0	63	71	4.75	0.46	1.79	10	10	0.0	0	6.6	S	38	NW	24	8	7	15	6.2	63
ST LOUIS RFC	465			85	67	75.8	- 0.8	94	18	57	13	6	0			7.42	3.50	3.81	13	0	0.0	0										
SPRINGFIELD	1265	968.2	1015.0	82	61	71.6	- 2.6	90	18	51	13	1	0	64	81	4.22	-0.80	1.93	13	10	0.0	0	7.8	SSE	47	NW	18	5	12	13	6.5	63
MONTANA																																
BILLINGS	3567	889.6	1012.1	77	53	65.0	1.4	99	26	41	7+	2	0	48	59	1.72	-0.83	1.08	10	15	0.0	0	8.9	WSW	47	W	3	9	11	10	5.4	74
GLASGOW	2277	938.7		77	53	64.8	2.5	92	26	43	6+	1	0	49	61	4.43	1.45	1.15	12	11	0.0	0						6	15	9	5.6	
GREAT FALLS	3662	887.2	1012.9	75	48	61.4	1.0	94	25	34	6	1	0	42	54	2.30	-0.60	1.12	10	9	0.0	0	8.6	SW	31	SW	30+	10	10	10	5.4	70
HAVRE	2582	924.1		77	51	64.0	3.0	94	25	34	6	2	0			3.36	0.63	1.66	12	12	0.0	0	8.0	SW$	47	SW	22	8	13	9	5.6	70
HELENA	3893	872.7	1013.4	74	48	60.9	1.4	93	25	34	7+	1	0	41	52	2.50	0.27	1.24	11	7	0.0	0	6.7	WNW	32	W	3	8	16	6	5.2	74
KALISPELL	2965	910.6		75	41	57.7	- 0.9	93	25	30	6	1	3			0.82	-1.39	0.33	8	4	0.3	T	6.7					13	9	8	5.0	
MILES CITY	2629			80	55	67.5	1.9	101	26	41	7+	4	0	51	60	4.59	1.88	2.23	10	9	0.0	0	8.9	SE	58*	W	4	15	9	6	4.4	
MISSOULA	3190	901.5	1015.0	74	41	57.3	- 1.2	92	25	32	6	1	1	43	62	1.49	-0.42	0.41	8	5	0.0	0	6.1	NW	26	NW	27	10	10	10	5.5	79
NEBRASKA																																
GRAND ISLAND	1841	949.0		80	59	69.4	- 3.1	90	19+	48	2	2	0	57	69	2.75	-1.04	0.85	12	10	0.0	0	10.6	SSE				5	11	14	6.4	
LINCOLN U	1150			82	62	72.1	- 1.0	91	19	51	2	4	0			3.03	-1.47	1.20	11	9	0.0	0	10.0	S$	40	S	16	4	12	14	7.0	63
NORFOLK	1544	959.3		79	59	68.9	- 2.0	91	28	47	2	2	0	58	64	4.86	0.60	1.28	11	9	0.0	0						7	9	14	6.4	
NORTH PLATTE	2779	917.5	1013.1	78	56	66.8	- 2.3	90	28	46	9+	1	0	56	70	5.30	2.05	1.67	13	13	0.0	0	11.3	SSE	54	NW	4	9	9	12	5.9	59
OMAHA	978	975.2	1014.5	82	62	72.3	- 0.8	93	23	51	2	2	0	60	68	2.56	-1.97	1.38	11	9	0.0	0	9.9	SSE	38	NW	5	3	14	13	6.7	66
OMAHA N OMAHA AP	1323	967.2		80	60	70.1	- 0.7	89	23+	48	2	0	0			3.02	-1.60	1.57	12	7	0.0	0						1	12	17	7.4	
SCOTTSBLUFF	3950	878.5	1012.7	78	53	65.4	- 1.5	91	27	41	8	2	0	52	68	4.23	1.13	0.92	17	17	0.0	0	12.3	SE	35*	WSW	16+	8	12	10	5.6	
VALENTINE	2587	923.8		77	55	65.8	- 1.7	92	28	45	5+	1	0		72	6.84	3.73	1.87	14	15	0.0	0	10.4	S$	43	N	15	11	8	11	5.7	62
NEVADA																																
ELKO	5075	843.9	1012.3	78	42	60.1	0.1	92	25	29	7	4	3	37	46	1.12	0.41	0.87	6	4	0.0	0	5.7	SW	32*	S	19	14	12	4	3.6	
ELY	6257	806.7	1010.6	78	41	59.6	1.0	91	26+	28	7	2	3	29	37	0.45	-0.05	0.26	5	7	0.0	0	6.7	S	36	SW	13	16	7	7	3.9	86
LAS VEGAS	2162	944.1	1006.9	97	67	82.3	- 1.1	108	26+	52	15	25	0	26	16	0.01	-0.03	0.01	1	1	0.0	0	11.2	SW	35*	WSW	3	24	3	3	1.6	92
RENO	4404	861.5	1013.0	83	41	61.7	1.6	92	28	30	4	6	3	37	41	0.04	-0.33	0.04	1	1	0.0	0	6.6	WNW	32	N	3	17	10	3	2.9	86
WINNEMUCCA	4299	865.4		82	45	63.4	1.9	94	25+	27	5	7	2	32	35	0.38	-0.38	0.32	5	2	0.0	0	6.4	W	35	N	15	16	10	4	3.6	85
NEW HAMPSHIRE																																
CONCORD	339	1005.1	1016.0	79	54	66.3	1.8	91	16	41	4	2	0	53	66	3.30	-0.31	1.02	10	5	0.0	0	5.2	NW	32	N	19	6	9	15	6.6	60
MT WASHINGTON OBS	6262	808.9		52	39	45.4	0.5	62	30+	26	3	0	5		79	4.53	-1.97	1.96	14	3	T	T	24.2	W	82Y	NW	3	5	8	17	7.0	47
NEW JERSEY																																
ATLANTIC CITY	58	1014.9	1017.1	80	61	70.6	0.6	94	19	53	29	3	0	60	73	4.20	1.37	1.96	9	5	0.0	0	9.7	S	25*	WSW	19	5	13	12	6.4	56

See footnotes at end of table

CLIMATOLOGICAL DATA

ENGLISH UNITS

State and Station	Elevation (ground)	Pressure		Temperature											Average relative humidity	Precipitation							Wind					No. of days (sunrise to sunset)				
												No. of days							No of days		Snow, Sleet				Fastest mile							
		Station ∅	Sea level	Average maximum	Average minimum	Average	Departure from normal	Highest	Date	Lowest	Date	Max. 90 F. or above	Min. 32 F. or below	Average dew point		Total	Departure from normal	Greatest in 24 hours	.01 inch or more	With thunderstorms	Total	Maximum depth on ground	Average speed	Prevailing direction	Speed	Direction	Date	Clear, 0-3	Partly cloudy, 4-7	Cloudy, 8-10	Sky cover, tenths (sunrise to sunset)	Possible sunshine
	Ft.	Mb.	Mb.	F.	F.	F.	F.	F.		F.				F.	%	In.	In.	In.			In.	In.	M.p.h.		M p.h							%
NEW JERSEY																																
ATLANTIC CITY U	10			69	61	65.0	- 4.0	81	18	56	14+	0	0			4.28	1.24	1.76	9				10.5		22*	N	13+					
NEWARK	11	1015.4	1016.8	82	63	72.5	1.2	94	19+	56	14+	6	0	59	67	3.89	0.45	1.00	10	4	0.0	0	8.5	SW	35*	N	26	5	13	12	6.6	
TRENTON U	56	1008.8		81	62	71.9	0.9	92	19+	54	4	2	0			4.82	1.22	2.31	10	8	0.0	0	7.8	S$	25	SW	10	8	9	13	5.9	65
NEW MEXICO																																
ALBUQUERQUE	5310	847.3	1009.4	89	57	72.7	- 2.2	96	24+	45	17	14	0	34	30	0.19	-0.38	0.19	2	3	0.0	0	8.8	N	43	SE	26	23	7		1.8	92
CLAYTON	4969	845.9		82	53	67.2	- 3.0	91	23	46	3	2	0			1.91	0.43	1.76	9	14	0.0	0						7	19	4	4.6	
RATON	6379	807.0		80	46	63.2	- 2.2	90	22	37	17+	1	0			1.91	0.21	1.43	7	19	0.0	0						10	16	4	4.5	
ROSWELL	3619	891.0		93	58	75.4	- 0.2	102	22	47	6	21	0	46	43	0.97	-0.08	0.89	3	8	0.0	0	11.1		42	W	11	18	12		2.8	86
SILVER CITY	5373	835.4		89	54	71.5		96	23+	46	16	10	0			0.12		0.10	2	7	0.0	0						18	11	1	2.7	
NEW YORK																																
ALBANY	277	1012.0	1016.1	79	57	68.1	0.8	91	17	45	4	1	0	55	66	1.15	-2.10	0.85	6	3	0.0	0	7.9	S	24	S	24	5	9	16	7.1	65
BINGHAMTON	1590	958.0	1016.6	74	55	64.5	0.0	85	17	43	3	0	0	56	75	2.57	-1.28	0.94	10	5	0.0	0	7.6	NNW	23	SW	30	4	12	14	6.9	61
BUFFALO	705	989.2	1017.3	75	54	64.9	0.1	86	9	39	3	0	0	54	69	2.80	0.26	0.60	12	7	0.0	0	9.0	SW	30	W	17	4	11	15	6.8	63
NEW YORK U	132	1004.8		82	63	72.5	1.1	93	19+	53	14	5	0	58	65	3.73	0.42	1.43	9	5	0.0	0	7.6	S$	24	NE	13	12	10	8	4.7	65
NEW YORK LA GUARDIA	19	1014.4	1016.5	81	65	72.7	1.2	93	19+	56	14	4	0	57	62	4.27	0.89	1.41	10	3	0.0	0	10.0	S	28	ENE	13	6	13	11	6.2	
ROCHESTER	543	997.7	1017.0	77	55	66.0	- 0.9	89	29	42	3	0	0	55	70	3.02	0.46	1.07	8	5	0.0	0	9.6	SSW	42	SW	17	8	7	15	6.0	67
SCHENECTADY	217			80	57	68.5	0.1	90	17	48	9	1	0			1.53	-1.97	0.66	9	4	0.0	0						19	7	4	3.5	
SYRACUSE	424	994.7	1016.4	79	57	68.3	1.0	89	17	44	3	0	0	54	63	1.10	-1.86	0.39	8	5	0.0	0	9.2	WNW	36	NW	30	8	9	13	6.1	70
NORTH CAROLINA																																
ASHEVILLE U	2203	938.9		80	61	70.2	- 1.6	90	19	53	30	1	0			6.20	2.68	1.23	16	3	0.0	0	6.2	SE$	25	NW	23	5	12	13	6.5	49
CAPE HATTERAS R	7	1015.5	1016.3	81	68	74.3	- 0.9	87	18	57	16	0	0	68	80	10.80	6.66	6.63	13	4	0.0	0	11.8	SSW	34	NE	29	6	8	16	6.6	60
CHARLOTTE	735	989.0	1016.9	84	66	74.7	- 1.9	93	25	54	30	5	0	64	75	4.25	0.64	1.17	14	7	0.0	0	6.8	NE	24	NW	24	7	10	13	6.7	49
GREENSBORO	891	985.6	1017.3	82	63	72.6	- 2.2	91	19	57	29+	2	0	64	78	7.08	3.61	2.67	14	12	0.0	0	6.8	NE	21	W	20	9	7	14	6.4	52
RALEIGH	433	1002.9	1016.6	83	64	73.5	- 1.6	92	18	55	9	3	0	64	77	6.37	2.67	2.02	10	10	0.0	0	7.2	SSW	21*	N	29+	7	9	14	6.4	43
WILMINGTON	30	1014.1	1017.0	85	67	75.8	- 1.9	91	25+	57	30	3	0	67	80	12.87	8.61	4.18	14	6	0.0	0	8.7	S	36	S	14	5	7	18	7.2	51
WINSTON SALEM	967	982.2	1017.4	82	64	72.9	- 2.8	92	19	58	29+	2	0	62	73	6.08	2.44	2.85	13	9	0.0	0	7.3	NE	54*	[illegible]NE	6	8	8	14	6.3	
NORTH DAKOTA																																
BISMARCK	1647	954.4	1014.2	77	54	65.4	0.9	89	27	33	1	0	0	57	77	2.92	-0.48	0.89	11	10	0.0	0	7.8	S	34	N	20	6	10	14	6.3	63
DEVILS LAKE U	1471	961.8		74	54	64.0	1.5	87	27	38	1	0	0			1.95	-1.41	0.93	11	5	0.0	0	7.5	S$	26	S	27	9	9	12	6.0	67
FARGO	900	980.7	1014.8	76	56	66.2	1.4	91	27	42	1	1	0	57	74	2.78	-0.26	1.15	8	6	0.0	0	7.5	SSE	27	SE	27	6	8	16	7.1	45
WILLISTON U	1899	945.7		78	53	65.3	2.2	92	27	40	5	2	0	53	63	3.14	-0.17	1.22	10	8	0.0	0	9.3	SE$	47	NW	14	6	12	12	6.0	66
OHIO																																
AKRON	1209	979.8	1017.7	81	58	69.8	1.9	92	29+	46	3	4	0	56	66	1.38	-2.88	0.74	7	4	0.0	0	7.0	NE	31*	NW	4	7	13	10	5.9	
CINCINNATI OBS	761			84	62	73.0	- 0.4	92	18	51	13	1	0			2.00	-2.18	0.79	10	9	0.0	0	4.6	S$	17	NW	18+					66
CINCINNATI U	553	993.8		85	64	74.7	0.3	94	18	54	14	8	0			3.03	-1.02	1.09	8	6	0.0	0										
CLEVELAND	777	988.9	1016.7	78	58	67.9	0.7	91	18	47	21+	1	0	58	72	2.95	-0.48	1.12	11	7	0.0	0	9.4	N	24	N	12	10	9	11	5.6	70
COLUMBUS	812	987.3	1016.9	84	61	72.3	1.0	95	18	49	21	4	0	59	67	2.26	-1.90	0.89	8	6	0.0	0	6.5	S	34	NW	23	7	12	11	5.8	68
COLUMBUS U	724			83	63	73.3	0.6	93	18	53	3	3	0			1.02	-2.77	0.53	6	4	0.0	0										
DAYTON	997	980.4	1016.4	83	60	71.3	- 0.2	94	18	49	14+	4	0	58	66	0.32	-3.78	0.18	8	6	0.0	0	8.5	SSW	27	W	24	7	10	13	6.2	58
MANSFIELD	1296			80	58	68.9	1.1	90	18	45	3	1	0			3.17	-1.06	1.94	7	7	0.0	0						4	17	9	6.1	
SANDUSKY U	606			79	62	70.9	0.3	95	18	53	21	4	0			1.83	-2.27	0.55	11	8	0.0	0	8.2	SW	24	SW	11	12	13	5	4.5	74
TOLEDO	676	991.7	1016.9	81	58	69.6	1.3	92	30+	50	21+	4	0	58	69	2.22	-1.57	0.82	7	7	0.0	0	7.7	SW	26	W	23	8	13	9	5.6	71
YOUNGSTOWN	1178	975.0	1017.4	78	57	67.4	- 0.2	88	30+	44	7+	0	0	56	69	2.47	-1.11	0.74	9	4	0.0	0	7.9	SSW	20*	SSW	10	8	11	11	6.0	
OKLAHOMA																																
OKLAHOMA CITY	1280	971.2	1013.8	85	66	75.3	- 1.2	93	20	59	4+	6	0	66	76	7.84	3.37	3.39	13	12	0.0	0	11.5	SSE	49	NW	22	4	15	11	6.3	74
TULSA	676	989.8	1014.0	85	66	75.2	- 2.1	93	20	56	14+	5	0	64	73	5.52	0.83	3.21	12	8	0.0	0	9.0	SSE	33	NE	7	3	16	11	6.4	59
OREGON																																
ASTORIA	8	1018.6	1019.3	62	48	54.9	- 1.9	70	7	40	6	0	0	49	81	1.87	-1.15	0.85	7	0	0.0	0	10.2	NNW	29*	SSW	2	4	9	17	7.2	
BURNS U	4151	872.3		76	44	60.0	0.2	90	24	25	4	1	3	34	40	0.04	-0.84	0.03	2	1	T	T						14	10	6	4.0	
EUGENE	361	1004.4		74	46	59.9	- 1.0	85	24	39	3	0	0			0.66	-0.76	0.45	3	0	0.0	0	8.0		24*	WNW	2	12	11	7	4.5	
MEACHAM	4050			66	40	53.3	- 0.4	84	24	29	4	0	3			0.29	-2.16	0.15	6	1	0.2	T						14	7	9	4.6	
MEDFORD	1298	968.8	1016.1	83	44	63.5	- 0.7	96	22	34	4	9	0	43	52	0.15	-0.87	0.15	1	1	0.0	0	6.2	WNW	23*	WNW	25	20	7	3	2.7	

See footnotes at end of table

CLIMATOLOGICAL DATA

ENGLISH UNITS

JUNE 1962

State and Station	Elevation (ground)	Pressure		Temperature											Average relative humidity	Precipitation							Wind					No. of days (sunrise to sunset)			Sky cover, tenths (sunrise to sunset)	Possible sunshine
												No. of days							No. of days		Snow, Sleet				Fastest mile							
		Station Ø	Sea level	Average maximum	Average minimum	Average	Departure from normal	Highest	Date	Lowest	Date	Max. 90° F. or above	Min. 32° F. or below	Average dew point		Total	Departure from normal	Greatest in 24 hours	.01 inch or more	With thunderstorms	Total	Maximum depth on ground	Average speed	Prevailing direction	Speed	Direction	Date	Clear, 0-3	Partly cloudy, 4-7	Cloudy, 8-10		
	Ft.	Mb.	Mb.	F.	F.	F.	F.	°F.		F.				°F.	%	In.	In.	In.			In.	In.	M.p.h.		M.p.h.							%
OREGON																																
PENDLETON	1482	961.7	1015.0	80	50	65.1	- 0.2	97	24	38	13	4	0	38	40	0.15	-1.02	0.09	2	2	0.0	0	9.7	WNW	29*	WNW	25	16	9	5	3.5	
PORTLAND	21	1012.2	1017.7	73	51	61.6	- 0.4	85	23	44	9	0	0	48	63	0.78	-0.89	0.46	4	0	0.0	0	8.5	NW	24	S	2	8	14	8	5.4	63
PORTLAND U	30			72	53	62.4	- 1.0	86	23	45	4	0	0			0.85	-0.83	0.50	5		0.0	0										
ROSEBURG	505	999.0		77	45	61.4	- 0.1	87	24+	39	6+	0	0			0.49	-1.01	0.46	2	0	0.0	0	5.7	N$	18	N	21	13	12	5	4.2	80
SALEM	195	1010.8	1018.2	74	45	59.3	- 2.3	86	23	37	4	0	0	48	68	0.69	-0.76	0.44	4	0	0.0	0	7.0	NW	25*	S	2	10	12	8	5.0	
SEXTON SUMMIT R	3836	884.9		67	44	55.4	- 0.3	81	28	30	3	0	3			0.38	-1.15	0.38	2	0	T	0	11.9	N				19	8	3	3.0	
PACIFIC AREA																																
CANTON ISLAND	8	1009.6	1010.0	88	78	83.3	- 0.5	90	25+	75	13	2	0	72	72	0.50	-2.15	0.20	7	0	0.0	0	9.2	E	21*	NNE	24	17	10	3	3.8	
ENIWETOK	16	1009.5		88	79	83.5	0.7	90	26+	74	7	4	0	75	76	3.48	0.11	1.89	19	0	0.0	0	12.2									
TAGUAC GUAM R	361			86	72	79.0	- 1.2	88	21+	68	20+	0	0			7.97	2.10	2.00	25	3	0.0	0	4.9	E$	19	E	14					60
KOROR R	94	1006.0	1009.8	88	75	81.8	0.7	90	28+	72	29	6	0	76	86	8.59	-4.39	1.92	23	4	0.0	0	4.6	E	17	S	26+	0	1	29	9.7	41
MAJURO	10	1008.8	1009.2	86	78	82.2	1.8	88	18+	73	14	0	0	75	81	12.01	-0.74	5.86	20	1	0.0	0	12.6	ENE	38	E	21	1	14	16	7.5	68
PONAPE R	123	1004.7	1009.5	88	74	80.8	0.7	90	19	71	15+	1	0	75	85	11.89	-4.81	3.17	25	9	0.0	0	3.6	NE	16	E	8	0	7	23	8.8	53
TRUK MOEN ISLAND	5	1009.0	1009.3	87	75	80.9	0.2	89	7	71	27	0	0	75	82	12.27	0.40	2.44	21	9	0.0	0	4.1	NNE	32	SE	24	1	11	18	8.0	18
WAKE ISLAND	11	1012.7	1013.1	87	76	81.6	0.2	89	29+	72	8+	0	0	74	79	5.19	3.29	2.02	17	2	0.0	0	10.0	ENE	26*	NE	7	3	17	10	6.3	
YAP R	55	1007.0	1009.0	88	75	81.4	- 0.5	90	6+	73	26+	3	0	76	85	7.96	-2.76	1.72	19	4	0.0	0	5.7	NE	29	E	14+	0	0	30	9.9	66
PENNSYLVANIA																																
ALLENTOWN	376	1002.8	1017.0	81	60	70.4	1.0	92	18	51	3	2	0	58	68	3.53	-0.54	1.66	8	6	0.0	0	8.0	SSW	40*	NW	15	8	9	13	5.9	
ERIE	732	990.8	1016.9	76	58	66.8	0.1	88	9	46	3	0	0	56	71	4.98	1.93	2.48	9	4	0.0	0	11.0	S	35*	SW	10	12	9	9	5.0	
HARRISBURG	335	1002.7	1016.6	83	62	72.1	0.8	93	18	52	7	3	0	60	68	4.03	0.61	1.17	10	3	0.0	0	5.6	W	34	NW	1	7	10	13	6.4	64
PHILADELPHIA	5	1012.0	1016.6	81	62	71.7	0.7	91	18	54	15	2	0	61	71	7.40	3.35	3.62	16	6	0.0	0	7.5	WSW	22	W	19+	6	9	15	6.7	58
PHILADELPHIA U	35			82	65	73.5	0.9	95	18	56	13	5	0																			
PITTSBURGH	1151	987.0	1017.7	81	58	69.3	0.9	91	30+	50	21+	2	0	58	70	1.82	-1.96	0.85	6	5	0.0	0	6.9	NNE	29*	NNW	1	6	9	15	6.5	61
PITTSBURGH J	749			82	63	72.4	0.5	91	23	53	3	3	0			2.25	-1.70	0.99	7		0.0	0										69
READING U	266	1004.4	1015.0	82	63	72.5	0.3	93	18	55	3	2	0			1.46	-2.26	0.63	8	2	0.0	0	7.9	S$	36	NW	1	9	10	11	5.8	66
SCRANTON	940	983.0	1017.0	79	58	68.5	1.3	90	18	47	3	1	0	55	65	1.71	-2.20	0.44	8	5	0.0	0	7.3	WSW	19	SW	1	6	10	14	6.6	63
WILLIAMSPORT	527	998.7	1017.8	81	57	68.7	- 0.5	93	18	48	7+	1	0	57	69	2.11	-1.12	0.58	9	6	0.0	0	5.6	N	27*	WNW	1	5	12	13	6.6	
RHODE ISLAND																																
BLOCK ISLAND	110	1011.5		71	58	64.3	1.4	82	26	50	3	0	0			6.81	4.25	2.25	9	2	0.0	0						10	9	11	5.6	
PROVIDENCE	55	1010.1	1016.3	76	57	66.6	0.4	89	1	50	28+	0	0	56	73	5.52	2.76	1.99	11	6	0.0	0	10.4	SSW	25*	SW	10	7	8	15	6.5	61
SOUTH CAROLINA																																
CHARLESTON	41	1014.3	1016.3	85	68	76.3	- 1.9	92	24	62	30	1	0	68	80	16.07	11.09	3.99	18	13	0.0	0	7.1	S	37Y	SW	24	4	10	16	7.0	69
CHARLESTON U	9			83	71	76.9	- 2.7	90	24	66	30	1	0			14.29	10.04	2.69	18		0.0	0	10.1		42	NW	26					
COLUMBIA	217	1003.5	1016.2	88	67	77.3	- 2.4	97	24	55	30	9	0	66	75	4.78	0.93	2.03	10	8	0.0	0	6.8	ENE	35*	WNW	20	5	11	14	6.5	40
FLORENCE	146	1010.7	1016.5	87	67	77.1	- 1.7	97	24	61	30+	9	0	67	77	4.57	0.29	1.15	13	10	0.0	0	7.8	NNE	25*	NNW	24	4	13	13	6.6	
GREENVILLE	1009	979.7	1016.4	86	67	76.4	- 2.5	96	24	57	30	8	0	66	77	7.03	4.21	2.40	11	9	0.0	0	6.3	NE	19	W	24	8	8	14	6.6	49
SPARTANBURG	801	987.2	1016.6	85	66	75.1	- 2.5	93	24	57	30	7	0	64	75	10.96	8.01	2.47	17	11	0.0	0	6.1	NE	25*	NNW	26	6	10	14	6.4	
SOUTH DAKOTA																																
HURON	1282	968.2	1014.8	76	57	66.4	- 1.7	90	28	41	1	1	0	60	81	5.67	2.53	1.24	13	8	0.0	0	10.3	SSE	47	S	14	6	10	12	6.4	58
RAPID CITY	3165	901.2	1013.8	76	54	65.3	0.4	90	27	41	5	1	0	54	71	4.01	0.93	1.25	15	13	0.0	0	10.5	SSE	54	SW	14	5	15	10	6.0	48
SIOUX FALLS	1420	963.8	1015.0	78	58	67.6	- 0.5	91	28	45	1	1	0	58	74	3.98	-0.37	1.56	10	6	0.0	0	9.1	SSE	40*	WSW	5	5	12	13	6.4	
TENNESSEE																																
BRISTOL	1507	962.3	1017.1	83	62	72.3	- 0.4	90	19	55	30	1	0	61	73	3.35	-0.03	0.95	11	9	0.0	0	3.8	NE	23*	NNW	19	6	11	13	6.3	
CHATTANOOGA	670	989.1	1016.4	87	66	76.1	- 0.5	95	24	56	15	7	0	66	77	5.31	1.61	1.39	15	10	0.0	0	5.7	S	35	S	25	7	10	13	6.2	60
KNOXVILLE	950	981.8	1016.9	85	64	74.4	- 1.8	91	19	56	30+	3	0	63	71	5.05	1.72	1.70	12	9	0.0	0	6.8	NE	37	E	27	7	10	13	6.1	57
MEMPHIS	263	1000.7	1015.2	86	68	77.1	- 1.9	95	18	60	15+	6	0	68	77	5.71	2.03	1.82	12	11	0.0	0	7.3	S	31	S	1	6	8	16	6.3	65
MEMPHIS U	271			86	70	77.7	- 1.4	94	17	62	15+	6	0			5.07	1.43	1.54	13		0.0	0										
NASHVILLE	577	996.0	1015.7	86	65	75.0	- 2.4	93	23+	55	14	6	0	65	77	7.29	4.04	2.36	12	14	0.0	0	5.4	S	33	NW	23	5	13	12	6.0	63
OAK RIDGE	905	983.8		84	63	73.2	- 1.8	90	18	53	15	1	0			8.09	4.85	2.02	14	10	0.0	0	2.9		46		19	10	11	9	5.4	
TEXAS																																
ABILENE	1759	952.1	1012.3	89	66	77.3	- 3.0	97	6	58	3	15	0	64	66	7.65	4.96	2.10	11	11	0.0	0	10.5	SSE	46	NW	9	11	12	7	4.5	67
AMARILLO	3607	888.1	1011.4	85	60	72.4	- 3.1	96	23	51	3	9	0	57	66	10.16	7.27	4.39	12	15	0.0	0	15.1	SSE	52	S	23	11	12	7	5.0	66

See footnotes at end of table

CLIMATOLOGICAL DATA

ENGLISH UNITS

State and Station	Elevation (ground)	Pressure: Station Ø	Pressure: Sea level	Temperature: Average maximum	Temperature: Average minimum	Temperature: Average	Temperature: Departure from normal	Temperature: Highest	Temperature: Date	Temperature: Lowest	Temperature: Date	Temperature: No. of days: Max. 90 F. or above	Temperature: No. of days: Min. 32 F. or below	Average dew point	Average relative humidity	Precipitation: Total	Precipitation: Departure from normal	Precipitation: Greatest in 24 hours	Precipitation: No. of days: .01 inch or more	Precipitation: No. of days: With thunderstorms	Precipitation: Snow, Sleet: Total	Precipitation: Snow, Sleet: Maximum depth on ground	Wind: Average speed	Wind: Prevailing direction	Wind: Fastest mile: Speed	Wind: Fastest mile: Direction	Wind: Fastest mile: Date	No. of days (sunrise to sunset): Clear, 0-3	No. of days (sunrise to sunset): Partly cloudy, 4-7	No. of days (sunrise to sunset): Cloudy, 8-10	Sky cover, tenths (sunrise to sunset)	Possible sunshine
	Ft.	Mb.	Mb.	°F.	°F.	°F.	F.	F.		°F.				F.	%	In.	In.	In.			In.	In.	M.p.h.		M.p.h.							%
TEXAS																																
AUSTIN	597	991.7	1013.3	90	71	80.3	- 1.6	98	19	64	3	20	0	69	74	8.21	4.99	1.92	12	13	0.0	0	7.1	SSE	36	NE	13	4	15	11	6.1	65
BROWNSVILLE	16	1010.0	1012.5	90	75	82.2	- 0.5	92	20+	69	26+	20	0	73	78	3.98	1.02	2.68	9	4	0.0	0	13.2	SE	37	NE	2	5	18	7	5.4	61
CORPUS CHRISTI	43	1011.9	1013.1	90	74	82.2	- 0.1	97	19	66	2	22	0	73	77	2.93	0.54	0.79	8	6	0.0	0	11.3	SE	56	SE	1	7	12	11	6.1	62
DALLAS	481	995.6	1013.8	89	70	79.2	- 2.1	95	24+	64	3	14	0	67	69	4.63	1.39	1.45	12	10	0.0	0	11.2	SSE	31	SE	8	7	10	13	6.2	60
DEL RIO U	957			94	73	83.3	0.6	102	20	62	1	25	0			1.11	-1.31	0.35	6	5	0.0	0										
EL PASO	3918	883.6	1007.7	95	65	80.0	- 0.5	102	23	56	17	29	0	36	23	T	-0.69	T	0	1	0.0	0	7.6	ESE	42	E	25+	29	0	1	1.4	94
FORT WORTH	544	993.1	1013.5	90	70	79.9	- 1.6	97	24+	64	3	17	0	67	69	6.94	3.96	2.83	15	13	0.0	0	10.9	SE	42*	SE	27	7	10	13	5.8	
GALVESTON U	7			85	76	80.4	- 1.3	89	20	66	4	0	0			8.72	6.07	2.99	11	0	0.0	0	10.7		40	NW	19+					80
GALVESTON	5	1012.5	1014.7	87	76	81.3	- 0.8	90	24+	67	4+	3	0	70	70	5.40	2.91	1.36	14	12	0.0	0	9.5	SE				5	15	10	5.8	
HOUSTON U	41			89	75	82.2		95	18	68	4	19	0			8.08	4.25	3.87	12	0	0.0	0										
HOUSTON	50	1011.3	1013.9	88	71	79.8	- 2.8	92	23+	66	4	15	0	73	85	7.40	3.71	2.15	11	13	0.0	0	8.0	SSE				1	20	9	6.4	72
LAREDO	500	995.9	1011.1	97	74	85.6	- 0.1	102	20	66	3+	27	0	68	61	1.58	-0.38	0.62	7	7	0.0	0	13.4	SE	43*	S	10	11	14	5	4.5	
LUBBOCK	3243	902.4	1012.1	88	61	74.8	- 2.7	97	23+	52	3	15	0	58	61	2.56	0.03	0.91	9	8	0.0	0	16.3	S	55*	NNW	24	11	15	4	4.2	
MIDLAND	2854	913.2	1009.8	92	66	78.9	- 2.3	99	21+	59	10+	22	0	58	53	1.83	0.20	0.75	4	7	0.0	0	12.8	SSE	46*	NW	11	14	12	4	4.2	
PORT ARTHUR	16	1012.8	1014.2	89	71	80.3	- 0.3	93	23+	66	4+	21	0	74	86	5.82	1.53	3.10	9	14	0.0	0	7.2	S	33	N	19	2	18	10	6.6	58
SAN ANGELO	1903	945.2	1010.9	94	68	81.1	- 1.4	101	16	61	10	23	0	61	55	0.74	-1.08	0.46	6	5	0.0	0	9.7	SSF	28*	NNE	18	16	7	7	4.2	
SAN ANTONIO	792	988.2	1012.7	92	72	82.3	- 0.4	97	19	63	1	23	0	69	70	2.44	-0.51	1.60	6	5	0.0	0	10.3	SE	31	SE	26	9	18	3	4.8	64
VICTORIA	104	1008.9		90	72	80.8	- 0.5	94	21+	64	2	17	0	72	73	4.09	1.05	2.33	10	8	0.0	0	9.3		43*		2	3	17	10	6.4	
WACO	500	992.8	1013.6	89	71	79.9	- 2.1	95	20	65	4+	18	0	69	73	4.69	2.02	1.26	15	11	0.0	0	11.6	SSE	35	WSW	1	7	16	7	5.6	
WICHITA FALLS	994	976.3	1012.5	88	67	77.2	- 3.6	96	20	60	3	14	0	66	71	8.29	5.09	2.64	11	12	0.0	0	9.2	SSE	48*	W	7	11	9	10	5.4	
UTAH																																
MILFORD	5028	842.9		84	44	64.0	- 1.4	98	26	33	8	12	0			0.24	-0.19	0.13	3	3	0.0	0						21	4	5	2.7	
SALT LAKE CITY	4220	865.6	1011.5	84	52	68.2	1.3	100	27	35	7	11	0	40	41	0.49	-0.49	0.44	2	3	0.0	0	9.6	S	40	N	19	16	10	4	3.9	83
WENDOVER	4237	868.6		82	58	70.1	0.3	97	27	41	4	8	0			0.72	0.26	0.61	5	8	0.0	0						16	9	5	3.3	
VERMONT																																
BURLINGTON	331	1000.7	1015.3	78	52	64.6	- 1.1	90	17	39	9+	1	0	53	68	2.66	-0.83	1.18	6	4	0.0	0	7.0	SSW	27	N	30	8	7	15	6.3	61
VIRGINIA																																
LYNCHBURG	947	992.2		80	62	71.0	- 2.0	90	19	56	29+	1	0			4.92	0.86	1.72	9	6	0.0	0	6.8		30	NE	30	6	9	15	6.7	53
NORFOLK	26	1015.5	1017.0	82	65	73.4	- 2.2	92	24+	53	9	3	0	64	76	3.03	-0.58	1.29	10	3	0.0	0	10.5	SW	40	NE	30	7	8	15	6.7	51
RICHMOND	162	1010.7	1017.0	85	63	74.0	- 0.6	97	19	49	9	10	0	65	78	5.57	1.82	3.73	9	4	0.0	0	6.9	SW	25	NE	30	6	10	14	6.9	51
ROANOKE	1174	975.7	1017.5	83	61	72.4	- 1.0	92	19+	54	16+	6	0	61	72	3.08	-0.72	0.84	11	8	0.0	0	6.9	SE	25*	SE	27+	7	12	11	6.1	
WASHINGTON																																
OLYMPIA	190	1011.2	1018.4	72	44	57.8	- 1.3	87	23	35	6	0	0	46	68	0.89	-0.90	0.58	6	0	0.0	0	6.6	SW	23*	SW	2	8	13	9	5.9	
SEATTLE TACOMA	400	1004.1	1018.0	70	50	59.9	0.6	85	23	41	4	0	0	46	65	0.68	-0.90	0.21	8	0	0.0	0	8.9	SW	24*	WSW	25+	8	9	13	6.0	
SEATTLE	14		1018.0											48	67								6.9	N								
SEATTLE U	14			70	53	61.2	- 0.2	84	23	46	3	0	0			0.69	-0.72	0.18	9		0.0	0			33	SW	2					69
SPOKANE	2357	945.8	1014.0	75	47	61.1	- 0.3	92	24	34	6	2	0	40	50	0.78	-0.71	0.48	6	5	0.0	0	8.3	SW	31	W	25	12	12	6	4.4	81
STAMPEDE PASS R	3958	881.1		58	40	48.9	0.0	75	23	30	4+	0	3			1.99	-2.10	0.96	10	2	8.0	22						7	8	15	6.4	
TATOOSH ISLAND	101	1016.3	1019.0	56	48	51.9	- 2.0	60	27+	44	25+	0	0	49	89	1.77	-1.07	0.77	9	0	0.0	0	11.1	SW	73	S	2	2	13	15	7.1	45
WALLA WALLA U	949	978.7		79	54	66.6	- 0.6	95	24	43	3	3	0			0.45	-0.77	0.19	4	2	0.0	0	5.3	W$	28	W	25	17	6	7	4.0	83
YAKIMA	1061	975.6	1014.3	80	46	63.2	- 1.2	94	24	33	4	4	0	40	44	0.07	-0.74	0.05	2	3	0.0	0	7.7	NNW	30*	NNW	12	15	9	6	4.0	
WEST INDIES																																
SAN JUAN P.R.	15	1014.3	1016.6	86	75	80.5	0.5	90	7	70	13	1	0	73	81	6.70	1.04	1.15	22	12	0.0	0	7.8	ENE	26	E	22	3	11	16	7.0	39
SWAN ISLAND	28	1010.6		85	77	81.4	- 0.9	87	29+	73	9	0	0			5.94	-0.52	2.28	20	10	0.0	0						1	13	16	7.4	
WEST VIRGINIA																																
CHARLESTON	939	981.5	1016.6	83	63	73.0	1.5	90	23+	56	16	2	0	63	75	4.94	1.25	2.24	8	7	0.0	0	3.5	WSW	18*	WSW	23	3	13	14	7.0	
ELKINS	1970	949.2	1018.0	78	54	66.1		84	23	45	30	0	0	58	78	4.32		1.51	7	4	0.0	0	4.0	S	21	N	5	2	11	17	7.5	
HUNTINGTON U	827	986.7	1016.8	81	60	70.4	- 3.5	88	18	49	15	0	0	62	78	3.81	-0.42	1.55	13	5	0.0	0	4.4	SSW	17*	SW	23	7	9	14	6.4	
PARKERSBURG U	615			83	61	72.4	- 0.2	90	30+	53	15	4	0			1.04	-3.23	0.26	9	5	0.0	0	5.2		27	W	23					58
WISCONSIN																																
GREEN BAY	682	994.1	1016.8	74	54	64.0	- 0.5	85	28	42	2	0	0	55	75	4.35	0.99	1.21	9	6	0.0	0	6.2	NE	29	W	18	8	9	13	5.8	62
LA CROSSE	652	991.6		78	58	68.0	- 0.8	91	28	48	3+	1	0	55	69	2.23	-1.97	0.77	10	8	0.0	0	8.4	S	35*	WSW	17	6	8	16	6.8	

See footnotes at end of table

CLIMATOLOGICAL DATA

ENGLISH UNITS

JUNE 1962

State and Station	Elevation (ground)	Pressure		Temperature											Average relative humidity	Precipitation							Wind					No. of days (sunrise to sunset)			Sky cover, tenths (sunrise to sunset)	Possible sunshine
												No. of days							No. of days		Snow, Sleet				Fastest mile							
		Station Ø	Sea level	Average maximum	Average minimum	Average	Departure from normal	Highest	Date	Lowest	Date	Max. 90 F. or above	Min. 32 F. or below	Average dew point		Total	Departure from normal	Greatest in 24 hours	01 inch or more	With thunderstorms	Total	Maximum depth on ground	Average speed	Prevailing direction	Speed	Direction	Date	Clear, 0-3	Partly cloudy, 4-7	Cloudy, 8-10		
	Ft.	Mb.	Mb.	F.	F.	°F.	F.	F.		F.				F.	%	In.	In.	In.			In	In.	M.p.h.		M.p h.							%
WISCONSIN																																
MADISON	858	981.4	1016.3	79	55	66.7	0.6	91	17	42	13	2	0	56	70	2.09	-1.86	1.04	8	5	0.0	0	8.5	ENE	50	W	17	7	7	16	6.3	60
MILWAUKEE	672	992.8	1017.8	75	53	63.9	0.6	93	17	43	3	3	0	54	75	1.33	-2.31	0.40	9	8	0.0	0	10.1	NNE	35	N	11	9	7	14	5.9	61
WYOMING																																
CASPER	5319	837.5	1012.5	75	48	61.5	- 1.6	93	27	35	7	2	0	43	57	1.75	0.50	0.48	12	14	T	0	9.0	WSW	37*	WNW	1	11	12	7	5.0	
CHEYENNE	6126	814.4	1013.4	73	47	59.9	- 1.6	87	28	34	8	0	0	47	67	2.82	0.71	0.88	16	19	0.0	0	10.8	WNW	33	SW	16	5	15	10	5.9	52
LANDER	5563	835.1	1012.1	76	47	61.4	- 0.6	94	26	34	7	2	0	40	50	0.46	-0.90	0.25	5	6	0.0	0	7.0	WSW	52	SW	3	7	17	6	5.2	75
SHERIDAN	3942	883.8	1009.7	75	48	61.1	- 0.8	94	26	35	5	1	0	44	59	3.03	0.46	1.85	15	15	0.0	0	6.5	WNW	49	SW	3	9	10	11	5.7	67

Data from airport unless otherwise specified. U indicates Urban, R indicates Rural, sites.

* Value entered in column headed "Fastest Mile" is the highest observed wind speed. This station is not equipped with an automatic recording wind instrument.

Ø Station pressures apply to elevations shown in the "Elevations - Station Pressure" table of the annual issue of this publication.

A Maximum hourly average.
+ And also on an earlier date or dates.
B Number of days maximum 70 F. or above for Alaskan Stations.
$ Wind direction to 8 compass points only.
Y Peak Gust.

CLIMATOLOGICAL DATA

METRIC UNITS

State and Station	Elevation (ground)	Pressure		Temperature										Average dew point	Average relative humidity	Precipitation							Wind					No. of days (sunrise to sunset)			Sky cover, tenths (sunrise to sunset)	Possible sunshine
												No. of days							No. of days		Snow, Sleet				Fastest mile (1.6 kilometers)							
		Station Ø	Sea level	Average maximum	Average minimum	Average	Departure from normal	Highest	Date	Lowest	Date	Max 32.2 °C or above	Min. 0 °C or lower			Total	Departure from normal	Greatest in 24 hours	25 mm. or more	With thunderstorms	Total	Maximum depth on ground	Average speed	Prevailing direction	Speed	Direction	Date	Clear, 0-3	Partly cloudy, 4-7	Cloudy, 8-10		
	M.	Mb.	Mb.	C.	C.	C.	C.	C		C.				C.	%	Mm.	Mm.	Mm.			Mm.	Mm.	M.p.s.		M.p.s.							%
ALABAMA																																
BIRMINGHAM	186	991.2	1016.3	32.2	20.0	26.1	0.6	35.6	24	15.0	15	17	0	18.3	66	91	-11	31	12	10	0	0	3.0	ESE	13.0	SW	18	4	13	13	6.4	65
HUNTSVILLE	184	993.2	1016.1	30.6	18.9	24.8	-1.1	35.6	18	13.3	15	7	0	17.8	70	119	33	34	13	11	0	0	3.0	ESE	14.8*	WSW	22	10	13	7	5.5	
MOBILE	64	1012.8	1015.1	31.7	22.2	27.0	0.3	35.0	7	20.0	9+	17	0	22.8	83	182	23	50	14	15	0	0	2.5	NE	12.5*	SE	17	1	15	14	7.3	
MONTGOMERY	59	1007.6	1015.8	32.2	20.6	26.5	0.2	35.6	17	18.3	16+	17	0	20.6	75	158	52	50	9	12	0	0	2.7	ENE	12.1	E	9+	3	16	11	6.1	54
ALASKA												B																				
ANCHORAGE	27	1007.8	1012.6	16.1	7.8	11.9	-0.6	22.8	30	3.9	3+	4	0	7.2	74	86	61	47	12	0	0	0	2.6	SSE	7.6*	SSE	23+	3	6	21	8.0	41
ANNETTE	34	1013.5	1017.6	15.0	8.3	11.7	-0.4	22.2	25	4.4	8	3	0	7.8	79	194	50	96	16	0	0	0	3.2	SSE	9.4*	SE	6+	2	5	23	8.4	
BARROW	7	1014.2	1014.9	4.4	-1.7	1.4	0.8	16.1	30	-6.1	5	0	22	-0.6	87	4	-5	1	7	0	15	102	4.8	NNE	13.0*	E	1	1	7	22	8.2	
BARTER ISLAND	12	1012.2	1014.1	4.4	-0.6	1.9	0.7	15.6	18	-3.9	3	0	20	0.6	88	3	-9	2	5	0	18	25	4.7	ENE	17.0*	W	5	8	6	16	6.3	
BETHEL	38	1012.5	1014.0	15.0	5.6	10.1	-0.8	28.3	19	-2.2	6	8	4	5.6	78	19	-11	6	11	0	8	T	6.0	NW	13.0*	SW	1	4	8	18	7.6	
COLD BAY	29	1014.2	1018.2	10.0	3.9	7.0	-0.4	18.3	19	0.0	6	0	1	4.4	87	3	-46	1	5	0	3	T	7.3	WNW	19.2*	SSE	8	2	5	23	8.5	
CORDOVA	12	1012.9	1014.5	12.8	5.6	9.2	-0.9	19.4	17	0.6	9	0	0	7.2	87	187	99	32	19	0	0	0	2.7	ESE	8.0*	SW	9	0	4	26	9.0	
FAIRBANKS	133	993.5	1010.8	21.1	8.3	14.8	0.1	30.0	19	3.3	5	13	0	6.1	58	56	21	32	7	2	0	0	3.3	SW	10.3*	NE	22+	3	13	14	7.1	
JUNEAU	5	1014.6	1015.4	13.3	6.7	9.9	-1.3	21.1	26	1.7	16	1	0	6.7	81	121	35	24	19	0	0	0	3.3	ESE	12.5*	ESE	5	2	1	27	9.1	14
KING SALMON	13	1011.2	1013.2	16.1	5.6	10.9	0.1	27.8	17	0.6	4	10	0	6.1	76	42	7	8	14	0	T	0	5.2	SW	12.5*	S	9	4	5	21	8.0	
KOTZEBUE	3	1012.5	1013.0	8.9	3.3	6.2	-0.3	14.4	30	-1.7	6	0	8	3.9	87	27	14	9	12	0	33	127	4.6	WNW	10.3*	WNW	21	3	10	17	7.9	
MC GRATH	102	1000.0	1012.8	18.3	7.8	13.0	-0.6	30.6	20	0.6	5	9	0	5.6	64	37	-5	13	11	1	T	0	3.0	NNW	10.3*	SW	7+	2	8	20	7.7	
NOME	4	1012.9	1013.7	8.9	2.2	5.7	-2.1	17.8	22	-3.9	6	0	6	3.3	85	11	-13	4	9	0	5	25	5.5	WSW	14.3*	NW	24	7	7	16	6.9	52
ST. PAUL ISLAND	7	1015.6	1016.4	7.8	1.7	4.8	-0.1	13.9	20	-2.2	16	0	8	3.9	94	24	-6	8	15	0	T	T	6.3	S	15.6*	NW	22	4	2	24	8.6	
SHEMYA	37	1008.5	1012.1	7.8	4.4	6.2	0.8	12.2	10	3.3	20+	0	0	5.6	96	70	36	26	15	0	0	0	7.2	WSW	21.0*	WSW	7	1	0	29	9.5	
YAKUTAT	9	1013.9	1015.1	12.2	6.1	9.1	-1.2	18.3	24+	0.6	1	0	0	7.2	86	353	224	90	17	0	0	0	3.3	SE	11.6*	SE	5	2	2	26	8.9	
ARIZONA																																
FLAGSTAFF	2131	791.1	1013.0	25.0	4.4	14.6	-0.7	31.1	25	-1.7	16	0	3	-4.4	32	13	-4	11	3	5	0	0	3.4	S	13.9*	SSE	14	21	6	3	2.5	
PHOENIX	338	969.5	1007.7	38.9	18.3	28.4	-1.4	45.0	25	13.3	16	28	0	2.2	20	3	1	3	2	3	0	0	2.3	E	11.6*	SSE	27	25	4	1	1.2	98
PRESCOTT	1528	846.3	1010.5	30.0	11.1	20.5	-0.8	36.1	26+	2.8	15	9	0	-3.3	24	19	11	16	3	3	0	0	3.7	SSW	23.2	SW	3	21	6	3	2.1	92
TUCSON	788	922.1	1007.9	36.1	17.8	26.8	-1.1	41.1	25+	10.0	16	28	0	0.0	20	6	-1	6	1	2	0	0	4.2	S	14.3	W	28	24	2	4	2.1	96
WINSLOW	1487	850.3	1010.8	32.2	11.1	21.6	-2.2	37.8	25+	6.1	16	15	0	-4.4	22	4	-3	3	3	3	0	0	5.0	SW	17.9*	S	14	21	6	3	2.3	
YUMA	61	1002.4	1007.5	39.4	20.6	30.1	-0.8	46.1	24	13.9	15	28	0	5.6	25	T	0	T	0	0	0	0	3.8	SSE	12.5	SE	26+	25	4	1	1.1	96
ARKANSAS																																
FORT SMITH	137	997.5	1014.3	31.7	18.9	25.3	-0.6	35.6	18	14.4	15+	13	0	20.0	76	67	-44	17	14	9	0	0	2.8	ENE	10.7	SW	9	5	11	14	7.1	55
LITTLE ROCK	78	1002.1	1015.0	31.1	20.0	25.4	-0.7	34.4	17	14.4	15	13	0	20.0	77	159	67	54	13	11	0	0	2.8	WSW	14.3	S	2	5	11	14	6.6	56
TEXARKANA	110		1013.4	30.6	20.6	25.5	-0.8	34.4	17	17.2	15	10	0	21.1	83	124	26	72	15	15	0	0	3.3	S								
CALIFORNIA																																
BAKERSFIELD	151	993.9	1011.2	33.3	17.2	25.4	0.3	40.6	19	11.7	4	20	0	7.8	35	0	-2	0	0	0	0	0	3.5	NNW	10.7*	NNE	13	28	1	1	.8	
BISHOP	1252	871.3		31.7	10.0	20.8	-0.2	37.8	25	7.2	30+	18	0			4	2	3	2	0	0	0						25	3	2	1.6	
BLUE CANYON	1609	839.1		21.7	11.1	16.2	1.1	27.8	20	4.4	15+	0	0			1	-23	1	2	0	0	0	3.1	SSW	10.3	NNW	7	21	5	4	2.3	
BURBANK	213	986.8	1012.7	25.0	13.3	19.1	-0.9	32.2	26+	10.6	16	3	0	11.7	70	1	-1	1	1	0	0	0	3.4	S	7.6*	S	20+	15	11	4	4.2	
EUREKA U	13	1015.2		14.4	9.4	11.8	-1.3	20.0	2	7.2	13	0	0			3	-16	2	3	0	0	0	3.4	N$	13.0	N	2	7	13	10	6.1	60
FRESNO	99	998.6	1010.3	33.9	15.0	24.4	1.1	41.1	19	8.9	4	23	0	7.2	38	T	-2	T	0	0	0	0	3.4	WNW	12.5	NW	2	26	2	2	1.0	93
LONG BEACH	10	1011.9	1013.5	22.8	13.3	17.9	-1.6	27.8	25+	10.0	17	0	0	12.8	77	T	-1	T	1	0	0	0	3.4	S	9.4*	W	14	9	11	10	5.5	
LOS ANGELES	30	1009.8	1013.7	20.6	14.4	17.3	-0.1	25.6	26	12.8	24+	0	0	12.8	79	T	-1	T	0	0	0	0	3.2	WSW	9.4*	WSW	14	5	14	11	6.3	
LOS ANGELES U	95			23.9	14.4	19.1	-0.9	32.8	26	12.8	17+	1	0	12.2	71	T	-2	T	0	0	0	0	2.4	W$	9.4	W	14	16	5	9	4.5	60
MT SHASTA R	1080	892.0		25.0	7.2	16.2	0.4	31.1	22	-1.7	4	0	1			1	-31	1	1	0	0	0						24	6	0	2.0	
OAKLAND	1	1013.5	1013.8	22.2	11.7	16.9	-0.2	35.0	19	8.3	4	2	0	9.4	66	T	-3	T	0	0	0	0	4.2	WNW	11.6*	WSW	13	11	18	1	3.8	
POINT ARGUELLO	112	1000.7		16.7	9.4	13.2	-0.7	25.6	19	7.2	27	0	0			2	1	2	4	0	0	0	3.5		10.3*	NW	25+	5	7	18	7.2	
RED BLUFF	104	998.3	1010.7	32.8	16.7	24.9	0.3	40.6	20	11.1	4	21	0	5.6	33	28	17	28	2	2	0	0	4.4	SSE	13.0	NW	3	26	2	2	1.8	97
SACRAMENTO	5	1010.5	1011.7	31.7	12.2	22.0	-0.5	40.6	20	8.9	5	16	0	9.4	53	T	-2	T	1	0	0	0	3.8	SSW	11.2	W	13	26	4	0	1.1	97
SACRAMENTO U	7			30.6	13.3	21.9	0.0	40.0	20	10.0	12	13	0			T	-3	T	1		0	0										
SANDBERG R	1377	861.8		24.4	12.8	18.7	0.4	32.8	26	3.3	15+	1	0			0	-1	0	0	0	0	0	5.8	NNW	17.0*	NNE	25	27	2	1	.8	
SAN DIEGO	4	1010.2	1013.1	20.6	15.0	17.7	-1.0	23.9	25	13.3	25+	0	0	12.8	76	2	1	2	2	0	0	0	3.4	NW	8.9	NW	17	9	10	11	6.2	44
SAN FRANCISCO	2	1013.5	1014.4	21.1	10.0	15.4	-0.8	33.3	19	7.2	4	1	0	9.4	73	T	-3	T	0	0	0	0	5.8	WNW	20.6	WNW	2	17	12	1	3.0	
SAN FRANCISCO U	16			17.8	10.6	14.2	-0.9	31.1	19	8.9	5	0	0			T	-4	T	0	0	0	0	4.7	W$	13.4	W	13					66
SANTA MARIA	73	1005.8	1014.4	19.4	9.4	14.4	-0.9	26.1	18	2.2	4	0	0	10.6	81	1	-3	1	1	0	0	0	3.6	WNW	13.4*	NW	3	15	12	3	3.8	
COLORADO																																
ALAMOSA	2297	772.8		25.0	5.0	15.0	-0.6	30.0	28	-1.1	7	0	4			13	1	6	5	7	0	0						17	12	1	3.6	
COLORADO SPRINGS	1882	813.1	1014.3	24.4	9.4	17.2	-0.7	33.3	28	3.9	9	1	0	6.1	56	85	45	31	14	14	0	0	4.2	S	13.0*	SW	14	9	17	4	5.1	
DENVER	1610	838.1	1012.2	26.7	10.6	18.6	-0.8	35.0	28	5.0	9	2	0	5.6	50	39	2	21	10	13	0	0	4.1	SSW	14.3	W	22	11	11	8	5.3	69
GRAND JUNCTION	1478	857.1	1009.0	30.0	13.9	21.8	0.0	36.7	27+	7.2	17	13	0	-3.3	22	8	-3	8	2	3	0	0	3.2	ESE	15.6	E	22	18	11	1	3.4	87

See footnotes at end of table

CLIMATOLOGICAL DATA

METRIC UNITS

State and Station	Elevation (ground)	Pressure		Temperature											Average relative humidity	Precipitation							Wind					No. of days (sunrise to sunset)			Sky cover, tenths (sunrise to sunset)	Possible sunshine
		Station Ø	Sea level	Average maximum	Average minimum	Average	Departure from normal	Highest	Date	Lowest	Date	No. of days: Max 32.2 °C or above	No. of days: Min. 0 °C or lower	Average dew point		Total	Departure from normal	Greatest in 24 hours	No. of days: 25 mm. or more	No. of days: With thunderstorms	Snow, Sleet: Total	Snow, Sleet: Maximum depth on ground	Average speed	Prevailing direction	Fastest mile (1.6 kilometers): Speed	Fastest mile: Direction	Fastest mile: Date	Clear, 0-3	Partly cloudy, 4-7	Cloudy, 8-10		
	M.	Mb.	Mb.	C.	C.	C.	C.	C.		C.				C.	%	Mm.	Mm.	Mm.			Mm.	Mm.	M.p.s.		M.p.s							%
COLORADO																																
PUEBLO	1414	855.7	1011.6	29.4	11.7	20.5	-1.2	36.1	28	6.7	9	10	0	7.2	50	20	- 11	9	10	15	0	0	4.9	ESE	17.9	W	24	9	17	4	4.6	76
CONNECTICUT																																
BRIDGEPORT	2	1016.3	1017.3	25.0	15.0	19.9	-0.1	31.1	18+	9.4	3	0	0	15.0	76	80	- 6	42	10	4	0	0	4.9	WSW	17.0*	WSW	19	7	11	12	6.6	
HARTFORD	52	1010.0	1016.1	26.7	13.9	20.2	0.4	32.8	19	7.8	9	2	0	14.4	73	77	- 17	33	9	4	0	0	3.3	S	14.8	NW	26	7	7	16	6.8	59
NEW HAVEN	2	1016.4		25.0	14.4	19.7	0.7	31.1	16	11.1	4+	0	0			80	- 10	29	11	3	0	0	3.1		11.2	SW	19	7	12	11	6.4	66
DELAWARE																																
WILMINGTON	24	1013.4	1016.9	27.2	16.7	21.9	0.1	32.2	19+	12.8	8	2	0	15.6	71	77	- 26	44	8	7	0	0	3.4	S	10.3*	SSE	22	5	12	13	6.5	
DIST.OF COLUMBIA																																
WASHINGTON U	22			28.3	18.3	23.2	-0.1	34.4	19+	15.6	15+	5	0			89	3	21	8													
WASH NATL AP	4	1012.7	1017.2	27.8	18.9	23.2	-0.2	34.4	19	16.1	22+	2	0	16.7	70	62	- 20	27	9	5	0	0	3.0	S	18.8	NW	18	6	9	15	6.5	60
FLORIDA																																
APALACHICOLA U	4	1013.5		30.0	23.3	26.6	-0.2	32.8	6	20.6	29	1	0			92	- 43	41	11	9	0	0	2.7		10.3	NW	28	8	12	10	5.6	74
DAYTONA BEACH	9	1010.0	1016.8	30.6	21.1	25.9	0.1	32.8	7+	18.9	8	3	0	21.1	77	202	55	60	14	19	0	0	3.7	ESE	10.3*	WSW	20+	2	10	18	7.4	
FORT MYERS	4	1015.5		32.2	22.8	27.6	0.4	35.0	4	20.0	2	18	0			307	79	43	20	17	0	0	3.7		12.5*	NE	29+	2	15	13	6.9	
JACKSONVILLE	7	1015.4	1016.8	32.2	22.2	27.1	-0.1	35.6	27	20.6	21+	14	0	21.7	76	209	48	106	19	16	0	0	3.2	E	24.1	E	14	2	19	9	6.3	49
KEY WEST	2	1014.8	1016.0	31.1	25.6	28.2	0.6	32.8	28	21.7	14	3	0	22.8	73	73	- 28	39	12	7	0	0	4.2	SE	12.1	NW	8	3	14	13	6.9	68
LAKELAND U	65			31.7	22.2	26.9	-0.1	34.4	27	18.9	1	15	0			196	13	73	18	25	0	0	2.5					1	13	16	7.4	62
MIAMI BEACH	3			30.6	24.4	27.3	-0.2	34.4	6	21.7	1	3	0			231	104	59	22		0	0	2.6		12.1	N	20	2	13	15	7.1	47
MIAMI	2	1015.2	1016.3	30.6	23.3	26.7	-0.4	32.8	28+	20.6	1	3	0	22.2	79	263	76	64	20	15	0	0	3.0	SE	13.9*	S	20	2	13	15	7.4	
ORLANDO	32	1012.0	1016.6	32.8	22.2	27.6	0.7	36.1	27	20.0	9	20	0	21.7	77	79	- 98	28	12	15	0	0	3.5	S	14.3*	S	8	0	16	14	7.1	
PENSACOLA U	4			30.0	22.8	26.4	-0.5	32.2	27+	19.4	25+	2	0			88	- 44	27	11	7	0	0	3.7	SE	11.6	NE	24					73
TALLAHASSEE	18	1013.4	1016.1	32.2	20.6	26.6	-0.2	36.1	6	18.3	2	21	0	20.6	77	177	11	34	16	14	0	0	3.5	E	16.5*	SE	27+	3	19	8	6.2	
TAMPA	6	1016.4	1016.3	31.1	22.2	26.4	-0.6	33.9	28	18.9	2	5	0	21.7	79	161	- 24	47	12	16	0	0	4.0	SSE	21.5*	NE	26	3	13	14	7.0	58
WEST PALM BEACH	5	1015.4	1016.5	31.1	22.2	26.7	-0.6	34.4	6	20.0	8	7	0	22.2	81	176	- 15	38	18	14	0	0	3.4	SE	14.3*	WSW	8	1	12	17	7.5	
GEORGIA																																
ATHENS	245	988.0	1016.8	30.0	18.9	24.3	-1.0	35.0	24	14.4	30	7	0	19.4	78	105	6	22	10	9	0	0	3.0	ENE	9.4*	SW	26+	3	14	13	6.8	
ATLANTA	306	975.0	1015.9	29.4	18.9	24.2	-0.7	32.8	26+	14.4	15	4	0	19.4	79	112	14	26	17	13	0	0	2.6	ENE	10.3*	NNE	6	5	13	12	5.9	69
AUGUSTA	44	1009.4	1016.1	31.1	19.4	25.3	-0.7	35.0	24	11.1	30	8	0	20.0	77	131	54	38	14	14	0	0	2.4	SE	13.4*	E	7	3	14	13	6.8	
COLUMBUS	117	1002.3		31.7	20.0	26.1	-0.3	35.0	24	17.2	30+	14	0			66	- 28	20	13	13	0	0	3.4		13.0*	WSW	19+	2	15	13	6.4	
MACON	109	1002.1	1015.6	32.2	20.6	26.2	-0.9	35.0	26	16.7	30	18	0	20.0	74	85	0	20	14	14	0	0	3.5	NE	16.1	SSE	11	3	14	13	6.6	57
ROME	194	993.5		30.6	17.8	24.0	-0.7	33.9	18+	12.8	15	7	0			122	27	43	15	14	0	0						5	16	9	5.6	
SAVANNAH	15	1014.3	1016.9	30.6	20.0	25.3	-1.2	34.4	24	16.7	30	5	0	21.1	81	259	130	56	19	16	0	0	3.0	NNE	18.8	N	22	4	8	18	7.0	62
THOMASVILLE U	86			32.8	21.1	26.8	-0.3	35.6	27	18.9	3+	22	0			159	36	46	11	15	0	0						5	14	11	6.1	
HAWAII																																
HILO	9	1015.9		27.8	18.9	23.5	0.0	31.7	1	17.8	23+	0	0	18.9	75	83	- 90	23	17	0	0	0	3.5	WSW	10.3*	ESE	2+	1	14	15	7.0	32
HONOLULU	2	1016.6	1017.0	29.4	22.2	25.9	0.4	31.1	24	20.6	16+	0	0	18.3	66	3	- 6	2	4	0	0	0	5.6	ENE	13.4	NE	26	5	17	8	5.8	86
LIHUE	35	1012.2	1017.6	28.9	21.7	25.4	0.6	30.0	27+	18.9	18	0	0	19.4	71	91	54	42	11	0	0		5.2	ENE	11.2	NE	8+	5	14	11	6.2	68
IDAHO																																
BOISE	865	917.0	1011.9	27.2	10.0	18.6	0.4	38.9	25	0.6	4	4	0	5.6	47	3	- 20	2	6	7	0	0	3.8	NW	17.0	SW	16	13	10	7	4.2	84
IDAHO FALLS 42NW R	1460			25.0	6.7	15.7	0.3	33.3	25	- 2.8	7	1	1			35	3	15	7						13.9A	SW	27					
IDAHO FALLS 46W R	1504	846.9		25.0	7.2	16.1	0.7	33.3	25	- 2.8	7	2	2			45	17	21	9	2	0	0	3.4	WSW	13.9A	SSW	12					
LEWISTON	431	962.4		26.1	10.6	18.2	0.0	36.1	25+	3.3	4	3	0			25	- 19	13	7	1	[illegible]	0						10	13	7	4.9	
POCATELLO	1355	862.2	1012.8	26.1	8.9	17.7	0.6	35.6	25	- 0.6	7	3	1	3.3	43	9	- 15	4	6	6	[illegible]	0	4.2	WSW	18.8	SW	12	9	16	5	5.0	70
ILLINOIS																																
CAIRO U	96	1002.5		29.4	20.0	24.8	-0.7	34.4	6	15.6	14	5	0			92	- 13	29	14	14	0	0	2.9	SE	11.6	NW	21+	6	10	14	6.3	71
CHICAGO O HARE	201	991.7	1016.2	26.7	13.3	19.9		32.8	29	6.7	13	4	0	13.3	68	54		[illegible]	8	6	0		3.9	NNE	10.3*	NNW	22+	11	6	13	5.6	
CHICAGO MIDWAY	186	993.7	1016.4	27.2	16.1	21.6	0.1	35.0	18+	10.6	13+	7	0	12.8	62	65	- 38	27	8	6	0		4.3	NE	13.0	SW	9	9	9	12	5.4	77
MOLINE	177	998.7	1015.1	27.8	15.0	21.4	-0.4	33.9	17	7.8	13	6	0	15.6	70	38	- 73	16	7	6	0	[illegible]	3.6	SSW	14.3	SW	[illegible]	8	9	13	5.9	76
PEORIA	199	994.1	1016.3	27.8	15.6	21.7	-0.4	32.8	28	8.3	13	4	0	14.4	65	54	- 50	24	[illegible]	5	0	0	4.2	S	13.0	SW	9	10	7	13	5.6	71
ROCKFORD	222	989.1	1016.1	26.7	14.4	20.6	-0.4	33.3	17	8.9	13+	1	0	13.3	67	48	- 61	[illegible]	10	8	0	0	4.3	ENE	11.2*	W	18	9	7	14	5.9	
SPRINGFIELD	179	992.1	1015.1	29.4	17.2	23.3	0.6	35.0	18+	9.4	13	7	0	16.1	67	92	- 21	54	[illegible]	[illegible]	0	0	4.1	S	17.0	W	[illegible]	8	7	15	5.9	72
INDIANA																																
EVANSVILLE	116	1000.3	1016.0	29.4	17.8	23.6	-0.2	35.6	18	11.1	14	3	0	18.3	76	69	- 26	22	11	8	0	[illegible]	2.3	E	17.0	NW	24	9	7	14	5.9	76
FORT WAYNE	241	985.9	1016.7	28.3	15.6	21.8	0.7	33.3	18	9.4	14	4	0	14.4	66	[illegible]	- 52	[illegible]	8	7	[illegible]	[illegible]	4.1	SW	11.6	SW	18+	7	15	8	5.7	77

See footnotes at end of table

CLIMATOLOGICAL DATA

METRIC UNITS

State and Station	Elevation (ground)	Pressure		Temperature								No. of days			Average relative humidity	Precipitation			No of days		Snow, Sleet		Wind					No of days (sunrise to sunset)			Sky cover, tenths (sunrise to sunset)	Possible sunshine
		Station Ø	Sea level	Average maximum	Average minimum	Average	Departure from normal	Highest	Date	Lowest	Date	Max 32.2 °C or above	Min. 0 °C or lower	Average dew point		Total	Departure from normal	Greatest in 24 hours	25 mm. or more	With thunderstorms	Total	Maximum depth on ground	Average speed	Prevailing direction	Fastest mile (1.6 kilometers) Speed	Fastest mile Direction	Fastest mile Date	Clear, 0-3	Partly cloudy, 4-7	Cloudy, 8-10		
	M.	Mb.	Mb.	C	C.	C.	C.	C.		C.				C.	%	Mm.	Mm.	Mm.			Mm	Mm	M.p.s.		M.p.s.							%
INDIANA																																
INDIANAPOLIS	242	986.8	1016.3	28.9	16.7	22.9	1.2	35.6	18	10.0	14	6	0	15.6	67	37	- 81	22	8	9	0	0	3.0	SW	9.4*	WSW	10	8	11	11	5.9	74
SOUTH BEND	234	988.4	1016.3	26.7	14.4	20.6	0.0	33.9	18	8.9	2	3	0	13.9	68	128	37	54	7	6	0	0	4.1	SSW	12.5*	WNW	21	9	10	11	5.5	
IOWA																																
BURLINGTON	212	990.6	1016.0	28.3	16.1	22.1	-0.2	33.3	28+	11.1	14+	5	0	15.6	68	60	- 67	23	8	5	0	0	4.2	ENE	14.8	NW	10	11	8	11	5.3	80
DES MOINES	289	984.6	1015.6	27.2	16.7	21.8	-0.3	32.2	28+	10.6	3+	2	0	16.1	72	101	- 19	66	7	7	0	0	2.6	S	12.5	SW	10	7	10	13	6.2	70
DUBUQUE	325	990.6		25.0	13.9	19.6	-0.4	31.1	29+	7.2	13	0	0	13.9	64	68	- 39	18	9	6	0	0			12.1*	WNW	22+	7	8	15	6.4	
SIOUX CITY	334	974.1	1014.8	26.1	15.6	20.8	-0.8	32.2	28	8.3	1	1	0	16.1	77	194	84	37	13	10	0	0	3.8	SSE	21.0	NW	16	4	12	14	6.7	61
WATERLOO	265	983.6	1015.8	26.7	15.0	20.8	-0.1	32.8	17	9.4	13	3	0	15.6	73	74	- 49	25	7	5	0	0	3.9	ESE	17.9*	W	17	7	12	11	6.1	
KANSAS																																
DODGE CITY	791	926.4	1013.0	27.8	15.6	21.6	-1.9	32.8	20	8.3	2	3	0	15.0	70	144	67	39	10	14	0	0	5.1	SSE	18.8	NW	22	8	12	10	5.7	67
GOODLAND	1111	887.7	1012.8	26.7	12.2	19.6	-1.4	34.4	28	6.7	9	3	0	12.8	70	194	126	62	15	13	0	0	6.0	SSE	25.9*	NW	23	10	9	11	5.4	
TOPEKA	267	979.0	1014.1	28.3	16.7	22.5	-1.2	32.8	17	11.1	14	1	0	17.8	77	113	- 1	37	13	14	0	0	4.5	S	20.1	N	22	3	13	14	7.0	62
WICHITA	403	965.2	1013.1	28.9	18.9	23.9	-0.8	36.1	17	14.4	4	7	0	17.2	70	122	15	33	11	11	0	0	4.9	SSE	22.4	N	21	2	17	11	6.5	58
KENTUCKY																																
COVINGTON	265	985.2	1016.7	29.4	15.6	22.4	-0.2	33.9	18	9.4	14	3	0	16.1	71	112	13	39	11	8	0	0	2.8	SW	10.7*	NNW	5	8	10	12	6.0	
LEXINGTON	298	981.3	1016.7	28.3	17.2	22.7	-0.4	32.2	18	11.1	14	1	0	17.2	75	119	- 1	49	13	10	0	0	2.2	SE	10.7*	NNW	24	10	10	10	5.5	
LOUISVILLE	144	998.7	1016.1	28.3	17.2	23.0	0.0	33.3	18	12.2	15	1	0	18.3	77	121	19	59	11	8	0	0	2.7	SSE	13.0	N	10	10	10	10	5.3	55
LOUISIANA																																
ALEXANDRIA	28	1011.0	1015.5	31.1	20.0	25.5	0.0	33.3	18	16.7	5	9	0	21.1	83	179		54	16	19	0	0	1.9	S				5	15	10	6.3	
BATON ROUGE	20	1012.4	1015.3	31.1	21.1	25.9	-0.9	33.3	9	18.3	1	9	0	21.7	83	289	185	101	16	18	0	0	2.3	ESE				2	17	11	6.7	
BURRWOOD R	2		1015.8	30.6	25.0	27.7	0.4	32.8	24	21.7	12	4	0	22.8	77	126	18	0	9	17	0	0	3.3	SW								
LAKE CHARLES	4	1013.5	1014.9	31.1	21.7	26.4	-0.9	33.9	24+	19.4	5+	12	0	22.8	83	135	15	83	10	12	0	0	3.1	S	10.3	SSW	30+	1	17	12	7.0	
NEW ORLEANS	1	1013.2	1015.2	31.1	21.1	26.3	-0.2	34.4	27	18.9	30	6	0	22.8	84	225	113	87	14	16	0	0	2.4	SSE	17.0*	W	19	1	17	12	6.6	
NEW ORLEANS AUDUBON	3	1008.7		31.7	22.2	26.7		33.9	28+	20.0	8	12	0			277		66	19	23	0	0										
SHREVEPORT	77	1006.1	1015.3	31.1	20.6	25.9	-1.1	33.9	24+	18.3	10+	9	0	20.6	76	119	35	58	11	14	0	0	3.5	SSE				7	15	8	5.9	64
MAINE																																
CARIBOU	190	990.8	1013.9	22.2	9.4	15.9	0.9	31.1	29+	4.4	8+	0	0	9.4	71	60	- 43	13	12	3	0	0	4.4	SW	15.6*	NW	17	5	8	17	7.0	
PORTLAND	19	1011.5	1015.7	23.3	10.0	16.8	0.1	31.1	17	4.4	4	0	0	11.7	74	67	- 13	30	10	3	0	0	3.8	S	12.1	W	17+	7	9	14	6.4	65
MARYLAND																																
BALTIMORE	45	1012.1	1017.0	28.3	16.7	22.4	-0.1	35.0	19+	12.2	7	3	0	16.1	70	80	- 3	62	6	3	0	0	3.6	W	9.8	SW	10	6	11	13	6.2	50
BALTIMORE U	4			28.9	20.0	24.2	0.4	35.6	18	15.6	14+	5	0			70	- 28	41	9													
FREDERICK	90			27.8	15.6	21.6	-0.2	33.3	18	11.1	8	2	0			64	- 27	24	7		0	0										
MASSACHUSETTS																																
BLUE HILL OBS R	192	992.0	1015.1	24.4	12.8	18.6	0.2	30.6	17+	8.9	14+	0	0		76	65	- 30	27	10		0	0	5.5	SSW	14.8	NW	1					60
BOSTON	5	1011.0	1015.8	25.6	15.0	20.2	0.3	33.3	17	10.6	14	3	0	12.8	67	59	- 29	32	10	4	0	0	5.6	SSW	16.1	W	1	6	10	14	6.7	64
NANTUCKET	13	1015.9	1016.7	20.0	12.8	16.6	0.6	25.0	26+	7.8	28	0	0	13.3	85	127	53	43	7	1	0	0	5.4	SW	13.0	NE	6	7	4	19	7.2	63
PITTSFIELD	357			24.4	10.6	17.5	0.2	30.6	17	3.9	9+	0	0			44	- 64	25	6		0	0										
WORCESTER	301	979.7	1016.2	23.9	12.8	18.3	0.2	30.0	16	6.7	3	0	0	11.7	67	80	- 20	38	9	4	0	0	3.4	W	8.5*	W	17	6	8	16	6.9	
MICHIGAN																																
ALPENA	210	991.9		23.3	7.8	15.4	-1.3	32.2	29	- 1.1	3	1	1	9.4	57	75	7	28	12	7	0	0	2.8	SE$	9.8	NE	11	9	10	11	5.7	69
DETROIT	189	990.7	1017.2	26.1	15.6	20.6	-0.1	32.2	29+	6.7	3	2	0	13.3	66	125	53	43	11	9	0	0	3.8	N	13.4	N	25	9	10	11	5.6	59
DETROIT M WAYNE CO	193	992.7	1016.9	26.7	13.9	20.2	0.0	32.2	30+	6.1	3	3	0	12.8	66	67	- 17	18	13	7	0	0	3.5	NNE				8	10	12	5.7	
DETROIT WILLOW RUN	217	988.5	1016.7	27.8	13.9	20.8	-0.1	34.4	17	4.4	3	2	0	13.9	66	76	- 7	28	12	6	0	0	3.1	SW	9.4	NNW	18+	8	12	10	5.7	
ESCANABA U	181	994.5		20.6	10.6	15.6	-0.6	29.4	29	2.2	2	0	0		76	83	3	35	11	7	0	0	4.1		16.1	NW	23	9	10	11	5.7	67
FLINT	233	989.7	1017.5	25.0	12.2	18.6	-0.9	30.6	29+	2.8	3	0	0	13.3	73	135	56	47	12	8	0	0	3.4	SW	12.5*	ESE	18	9	9	12	5.9	
GRAND RAPIDS	208	991.8	1016.9	26.7	13.3	20.1	0.4	32.2	30+	6.7	2	2	0	11.7	61	28	- 56	10	6	4	0	0	4.1	E	12.5	W	18	9	11	10	5.7	67
LANSING	260	985.0	1016.8	26.1	12.2	19.1	-0.6	31.1	30+	2.8	3	0	0	12.8	68	74	- 11	19	13	5	0	0	5.0	S	25.0	N	18	8	13	9	5.9	78
MARQUETTE U	206	990.0		19.4	9.4	14.2	-1.4	32.2	28	1.7	3	1	0			55	- 33	17	11	5	0	0	2.7	SE$	15.6	SW	16	8	9	13	6.1	65
MUSKEGON	191	993.7	1016.7	26.1	13.3	19.7	1.2	31.1	8	6.7	2	0	0	12.8	67	37	- 32	11	7	6	0	0	3.9	WNW	10.3*	NW	23	10	8	12	5.8	
SAULT STE MARIE	220	994.4	1017.2	21.1	8.9	14.9	0.2	28.3	28	2.2	3	0	0	8.9	70	16	- 68	11	6	1	0	0	3.7	WNW	9.8*	WNW	1	10	7	13	5.7	66
MINNESOTA																																
DULUTH	435	975.7	1017.3	20.6	7.2	13.8	-1.4	30.6	28	- 1.1	2	0	3	7.8	69	76	- 32	24	7	7	0	0	4.0	ESE	20.1	SW	16	6	10	14	6.5	59
INTERNATIONAL FALLS	359	975.1	1016.1	22.8	10.0	16.4	0.9	29.4	28	0.6	2	0	0	10.6	70	88	- 11	31	12	7	0	0	2.8	S	20.6*	S	28	5	11	14	6.7	
MINNEAPOLIS	251	982.9	1016.0	25.0	12.8	18.9	-0.7	35.0	28	6.1	3	2	0	13.3	72	38	- 64	15	7	6	0	0	4.6	SE	18.3	NW	28	9	6	15	6.2	55

See footnotes at end of table

CLIMATOLOGICAL DATA

METRIC UNITS

JUNE 1962

State and Station	Elevation (ground)	Pressure: Station Ø	Pressure: Sea level	Temperature: Average maximum	Temperature: Average minimum	Temperature: Average	Temperature: Departure from normal	Temperature: Highest	Temperature: Date	Temperature: Lowest	Temperature: Date	No. of days: Max 32.2 °C or above	No. of days: Min. 0 °C or lower	Average dew point	Average relative humidity	Precipitation: Total	Precipitation: Departure from normal	Precipitation: Greatest in 24 hours	No. of days: .25 mm. or more	No. of days: With thunderstorms	Snow, Sleet: Total	Snow, Sleet: Maximum depth on ground	Wind: Average speed	Wind: Prevailing direction	Fastest mile (1.6 kilometers): Speed	Fastest mile: Direction	Fastest mile: Date	No. of days (sunrise to sunset): Clear, 0-3	Partly cloudy, 4-7	Cloudy, 8-10	Sky cover, tenths (sunrise to sunset)	Possible sunshine
	M.	Mb.	Mb.	C.	C.	C.	C.	C.		C.				C.	%	Mm.	Mm.	Mm.			Mm.	Mm.	M.p.s.		M.p.s.							%
MINNESOTA																																
ROCHESTER	395	969.0	1016.5	24.4	12.8	18.8	-0.3	33.3	28	6.7	3	1	0	13.9	76	66	- 47	37	5	6	0	0	4.5	S				8	6	16	6.4	
ST CLOUD	315	978.4	1016.2	24.4	12.2	18.3	-0.2	33.3	28	3.9	3	1	0	5.0	72	74	- 40	30	11	6	0	0						11	4	15	6.0	
MISSISSIPPI																																
JACKSON	93	1003.2	1015.2	31.7	20.0	25.8	-0.5	34.4	17	18.9	21+	12	0	20.0	74	35	- 63	13	10	16	0	0	2.6	SE	13.9	SW	1	5	15	10	6.2	69
MERIDIAN	89	1002.1	1015.8	32.8	18.9	25.8	-0.6	36.7	22	16.7	22+	16	0	20.0	77	46	- 58	21	11	11	0	0	2.2	S	14.3*	WSW	25	4	19	7	5.9	
VICKSBURG U	71	1006.2		30.6	20.6	25.4	-1.1	33.3	22+	18.3	14+	6	0			82	- 6	20	13	13	0	0	2.8		11.2	S	18+	5	13	12	6.2	72
MISSOURI																																
COLUMBIA	237	986.4	1014.3	28.9	16.7	22.8	-0.5	33.9	29	10.6	14+	6	0	17.2	74	36	- 74	12	11	8	0	0	3.5	SSE	14.3	NW	24	7	10	13	6.0	61
KANSAS CITY	226	979.8	1014.0	28.9	18.9	23.7	-0.4	33.3	17	13.9	13	5	0	17.8	73	74	- 42	24	8	6	0	0	3.4	S	18.8	NW	18	7	9	14	6.7	65
ST JOSEPH	247	980.4		28.3	17.2	22.9	-0.4	33.3	17	12.8	13	3	0			129	- 22	30	11	9	0	0	4.1	S	25.9*	W	22	8	13	9	5.8	
ST LOUIS	163	994.9	1015.4	28.9	17.8	23.3	-0.9	33.9	18	12.2	14+	3	0	17.2	71	121	12	45	10	10	0	0	3.0	S	17.0	NW	24	8	7	15	6.2	63
ST LOUIS RFC	142			29.4	19.4	24.3	-0.4	34.4	18	13.9	13	6	0			188	89	97	13	0	0	0										
SPRINGFIELD	386	968.2	1015.0	27.8	16.1	22.0	-1.4	32.2	18	10.6	13	1	0	17.8	81	107	- 20	49	13	10	0	0	3.5	SSE	21.0	NW	18	5	12	13	6.5	63
MONTANA																																
BILLINGS	1087	889.6	1012.1	25.0	11.7	18.3	0.8	37.2	26	5.0	7+	2	0	8.9	59	44	- 21	27	10	15	0	0	4.0	WSW	21.0	W	3	9	11	10	5.4	74
GLASGOW	694	938.7		25.0	11.7	18.2	1.4	33.3	26	6.1	6+	1	0	9.4	61	113	37	29	12	11	0	0						6	15	9	5.6	
GREAT FALLS	1116	887.2	1012.9	23.9	8.9	16.3	0.6	34.4	25	1.1	6	1	0	5.6	54	58	- 15	28	10	9	0	0	3.8	SW	13.9	SW	30+	10	10	10	5.4	70
HAVRE	787	924.1		25.0	10.6	17.8	1.7	34.4	25	1.1	6	2	0			85	16	42	12	12	0	0	3.6	SW$	21.0	SW	22	8	13	9	5.6	70
HELENA	1187	872.7	1013.4	23.3	8.9	16.1	0.8	33.9	25	1.1	7+	1	0	5.0	52	64	7	31	11	7	0	0	3.9	WNW	14.3	W	3	8	16	6	5.2	74
KALISPELL	904	910.6		23.9	5.0	14.3	-0.5	33.9	25	- 1.1	6	1	3			21	- 35	8	8	4	8	T	3.0					13	9	8	5.0	
MILES CITY	801			26.7	12.8	19.7	1.1	38.3	26	5.0	7+	4	0	10.6	60	117	48	57	10	9	0	0	4.0	SE	25.9*	W	4	15	9	6	4.4	
MISSOULA	972	901.5	1015.0	23.3	5.0	14.1	-0.7	33.3	25	0.0	6	1	1	6.1	62	38	- 11	10	8	5	0	0	2.7	NW	11.6	NW	27	10	10	10	5.5	79
NEBRASKA																																
GRAND ISLAND	561	949.0		26.7	15.0	20.8	-1.7	32.2	19+	8.9	2	2	0	13.9	69	70	- 26	22	12	10	0	0	4.7	SSE				5	11	14	6.4	
LINCOLN U	351			27.8	16.7	22.3	-0.6	32.8	19	10.6	2	4	0			77	- 37	30	11	9	0	0	4.5	S$	17.9	S	16	4	12	14	7.0	63
NORFOLK	471	959.3		26.1	15.0	20.5	-1.1	32.8	28	8.3	2	2	0	14.4	64	123	15	33	11	9	0	0						7	9	14	6.4	
NORTH PLATTE	847	917.5	1013.1	25.6	13.3	19.3	-1.3	32.2	28	7.8	9+	1	0	13.3	70	135	52	42	13	13	0	0	5.1	SSE	24.1	NW	4	9	9	12	5.9	59
OMAHA	298	975.2	1014.5	27.8	16.7	22.4	-0.4	33.9	23	10.6	2	2	0	15.6	68	65	- 50	35	11	9	0	0	4.4	SSE	17.0	NW	5	3	14	13	6.7	66
OMAHA N OMAHA AP	403	967.2		26.7	15.6	21.2	-0.4	31.7	23+	8.9	2	0	0			77	- 41	40	12	7	0	0						1	12	17	7.4	
SCOTTSBLUFF	1204	878.5	1012.7	25.6	11.7	18.6	-0.8	32.8	27	5.0	8	2	0	11.1	68	107	29	23	17	17	0	0	5.5	SE	15.6*	WSW	16+	8	12	10	5.6	
VALENTINE	789	923.8		25.0	12.8	18.8	-0.9	33.3	28	7.2	5+	1	0		72	174	95	47	14	15	0	0	4.6	S$	19.2	N	15	11	8	11	5.7	62
NEVADA																																
ELKO	1547	843.9	1012.3	25.6	5.6	15.6	0.1	33.3	25	- 1.7	7	4	3	2.8	46	28	10	22	6	4	0	0	2.5	SW	14.3*	S	19	14	12	4	3.8	
ELY	1907	808.7	1010.6	25.6	5.0	15.3	0.6	32.8	26+	- 2.2	7	2	3	- 1.7	37	11	- 1	7	5	7	0	0	3.9	S	16.1	SW	13	16	7	7	3.9	86
LAS VEGAS	659	944.1	1006.9	36.1	19.4	27.9	-0.6	42.2	26+	11.1	15	25	0	- 3.3	16	T	- 1	T	1	1	0	0	5.0	SW	15.6*	WSW	3	24	3	3	1.6	92
RENO	1342	861.5	1013.0	28.3	5.0	16.5	0.9	33.3	28	- 1.1	4	6	3	2.8	41	1	- 8	1	1	1	0	0	3.0	WNW	14.3	N	3	17	10	3	2.9	86
WINNEMUCCA	1310	865.9		27.8	7.2	17.4	1.1	34.4	25+	- 2.8	5	7	2	0.0	35	1	- 10	8	5	3	0	[illegible]	3.8	W	15.6	N	15	16	10	4	3.8	85
NEW HAMPSHIRE																																
CONCORD	103	1005.1	1016.0	26.1	12.2	19.1	1.0	32.8	16	5.0	4	2	0	11.7	66	84	- 8	26	[illegible]	5	0	0	2.3	NW	14.3	N	19	6	9	15	6.6	60
MT WASHINGTON OBS	1909	808.9		11.1	3.9	7.4	0.3	16.7	30+	- 3.3	3	0	5		79	115	- 50	50	12	3	T	T	10.8	W	36.7Y	NW	3	5	8	17	7.0	47
NEW JERSEY																																
ATLANTIC CITY	18	1014.8	1017.1	26.7	16.1	21.4	0.3	34.4	19	11.7	29	3	0	15.6	73	107	35	50	9	5	0	0	3.9	S	11.2*	WSW	19	5	13	12	6.4	58
ATLANTIC CITY U	3			20.6	16.1	18.3	-2.2	27.2	18	13.3	14+	0	0			109	31	45	9				4.7		9.8*	N	13+					
NEWARK	3	1015.4	1016.8	27.8	17.2	22.5	0.7	34.4	19+	13.3	14+	6	0	15.0	67	99	11	25	[illegible]	4	0	0	3.8	SW	15.6*	N	26	5	13	12	6.6	
TRENTON U	17	1008.8		27.2	16.7	22.2	0.5	33.3	19+	12.2	4	2	0			122	31	59	10	8	0	0	3.5	S$	11.2	SW	10	8	9	13	5.9	65
NEW MEXICO																																
ALBUQUERQUE	1618	847.3	1009.4	31.7	13.9	22.6	-1.2	35.6	24+	7.2	17	14	0	1.1	30	5	- 10	5	2	3	0	0	3.9	N	19.2	SE	26	23	7	0	1.8	92
CLAYTON	1515	845.9		27.8	11.7	19.6	-1.7	32.8	23	7.8	3	2	0			49	11	45	9	14	0	0						7	19	4	4.6	
RATON	1944	807.0		26.7	7.8	17.3	-1.2	32.2	22	2.8	17+	1	0			49	5	36	7	19	0	0						10	16	4	4.5	
ROSWELL	1103	891.0		33.9	14.4	24.1	-0.1	38.9	22	8.3	6	21	0	7.8	43	25	- 2	23	3	8	0	0	5.0		16.8	W	11	18	12	0	2.8	86
SILVER CITY	1638	835.4		31.7	12.2	21.9		35.6	23+	7.8	16	10	0			3		3	2	7	0	0						18	11	1	2.7	
NEW YORK																																
ALBANY	84	1012.0	1016.1	26.1	13.9	20.1	0.4	32.8	17	7.2	4	1	0	12.8	66	29	- 53	22	6	3	0	0	3.5	S	10.7	S	24	5	9	16	7.1	65
BINGHAMTON	485	958.0	1016.6	23.3	12.8	18.1	0.0	29.4	17	6.1	3	0	0	13.3	75	65	- 33	24	[illegible]	5	0	0	3.4	NNW	10.3	SW	30	4	12	14	6.9	61

See footnotes at end of table

CLIMATOLOGICAL DATA

METRIC UNITS

State and Station	Elevation (ground)	Pressure: Station	Pressure: Sea level	Temperature: Average maximum	Temperature: Average minimum	Temperature: Average	Temperature: Departure from normal	Temperature: Highest	Temperature: Date	Temperature: Lowest	Temperature: Date	No of days: Max 32.2 °C or above	No of days: Min 0 C or lower	Average dew point	Average relative humidity	Precipitation: Total	Precipitation: Departure from normal	Precipitation: Greatest in 24 hours	No of days: 25 mm or more	No of days: With thunderstorms	Snow, Sleet: Total	Snow, Sleet: Maximum depth on ground	Wind: Average speed	Wind: Prevailing direction	Fastest mile (1.6 kilometers): Speed	Fastest mile: Direction	Fastest mile: Date	No. of days (sunrise to sunset): Clear, 0-3	Partly cloudy, 4-7	Cloudy, 8-10	Sky cover, tenths (sunrise to sunset)	Possible sunshine
	M	Mb	Mb	C	C	C	C	C.		C				C.	%	Mm	Mm.	Mm			Mm.	Mm.	M.p s		M p.s							%
NEW YORK																																
BUFFALO	215	989.2	1017.3	23.9	12.2	18.3	0.1	30.0	9	3.9	3	0	0	12.2	69	71	7	15	12	7	0	0	4.0	SW	13.4	W	17	4	11	15	6.8	63
NEW YORK U	40	1004.8		27.8	17.2	22.5	0.6	33.9	19+	11.7	14	5	0	14.4	65	95	11	36	9	5	0	0	3.4	S$	10.7	NE	13	12	10	8	4.7	65
NEW YORK LA GUARDIA	6	1014.4	1016.5	27.2	18.3	22.6	0.7	33.9	19+	13.3	14	4	0	13.9	62	108	23	36	10	3	0	0	4.5	S	12.5	ENE	13	6	13	11	6.2	
ROCHESTER	166	997.7	1017.0	25.0	12.8	18.9	-0.5	31.7	29	5.6	3	0	0	12.8	70	77	12	27	8	5	0	0	4.3	SSW	18.8	SW	17	8	7	15	6.0	67
SCHENECTADY	66			26.7	13.9	20.3	0.1	32.2	17	8.9	9	1	0			39	- 50	17	9	4	0	0						19	7	4	3.5	
SYRACUSE	129	994.7	1016.4	26.1	13.9	20.2	0.6	31.7	17	6.7	3	0	0	12.2	63	28	- 47	10	8	5	0	0	4.1	WNW	16.1	NW	30	8	9	13	6.1	70
NORTH CAROLINA																																
ASHEVILLE U	671	938.9		26.7	16.1	21.2	-0.9	32.2	19	11.7	30	1	0			157	68	31	16	3	0	0	2.8	SE$	11.2	NW	23	5	12	13	6.5	49
CAPE HATTERAS R	2	1015.5	1016.3	27.2	20.0	23.5	-0.5	30.6	18	13.9	16	0	0	20.0	80	274	169	168	13	4	0	0	5.3	SSW	15.2	NE	29	6	8	16	6.6	60
CHARLOTTE	224	989.0	1016.9	28.9	18.9	23.7	-1.1	33.9	25	12.2	30	5	0	17.8	75	108	16	30	14	7	0	0	3.0	NE	10.7	NW	24	7	10	13	6.7	49
GREENSBORO	272	985.6	1017.3	27.8	17.2	22.6	-1.2	32.8	19	13.9	29+	2	0	17.8	78	180	92	68	14	12	0	0	3.0	NE	9.4	W	20	9	7	14	6.4	52
RALEIGH	132	1002.9	1016.6	28.3	17.8	23.1	-0.9	33.3	18	12.8	9	3	0	17.8	77	162	68	51	10	10	0	0	3.2	SSW	9.4*	N	29+	7	9	14	6.4	43
WILMINGTON	9	1014.1	1017.0	29.4	19.4	24.3	-1.1	32.8	25+	13.9	30	3	0	19.4	80	327	219	106	14	6	0	0	3.9	S	16.1	S	14	5	7	18	7.2	51
WINSTON SALEM	295	982.2	1017.4	27.8	17.8	22.7	-1.6	33.3	19	14.4	29+	2	0	16.7	73	154	62	72	13	9	0	0	3.3	NE	24.1*	NNE	6	8	8	14	6.3	
NORTH DAKOTA																																
BISMARCK	502	954.4	1014.2	25.0	12.2	18.6	0.5	31.7	27	0.6	1	0	0	13.9	77	74	- 12	23	11	10	0	0	3.5	S	15.2	N	20	6	10	14	6.3	63
DEVILS LAKE U	448	961.8		23.3	12.2	17.8	0.8	30.6	27	3.3	1	0	0			50	- 36	24	11	5	0	0	3.4	S$	11.6	S	27	9	9	12	6.0	67
FARGO	274	980.7	1014.8	24.4	13.3	19.0	0.8	32.8	27	5.6	1	1	0	13.9	74	71	- 7	29	8	6	0	0	3.4	SSE	12.1	SE	27	6	8	16	7.1	45
WILLISTON U	579	945.7		25.6	11.7	18.5	1.2	33.3	27	4.4	5	2	0	11.7	63	80	- 4	31	10	8	0	0	4.2	SE$	21.0	NW	14	6	12	12	6.0	66
OHIO																																
AKRON	369	979.8	1017.7	27.2	14.4	21.0	1.1	33.3	29+	7.8	3	4	0	13.3	66	35	- 73	19	7	4	0	0	3.1	NE	13.9*	NW	4	7	13	10	5.9	
CINCINNATI OBS	232			28.9	16.7	22.8	-0.2	33.3	18	10.6	13	1	0			51	- 55	20	10	9	0	0	2.1	S$	7.6	NW	18+					66
CINCINNATI U	169	993.8		29.4	17.8	23.7	0.2	34.4	18	12.2	14	8	0			77	- 26	28	8	6	0	0										
CLEVELAND	237	988.9	1016.7	25.6	14.4	19.9	0.4	32.8	18	8.3	21+	1	0	14.4	72	75	- 12	28	11	7	0	0	4.2	N	10.7	N	12	10	9	11	5.6	70
COLUMBUS	247	987.3	1016.9	28.9	16.1	22.4	0.6	35.0	18	9.4	21	4	0	15.0	67	57	- 48	23	8	6	0	0	2.9	S	15.2	NW	23	7	12	11	5.8	68
COLUMBUS U	221			28.3	17.2	22.9	0.3	33.9	18	11.7	3	3	0			26	- 70	13	6	4	0	0										
DAYTON	304	980.4	1016.4	28.3	15.6	21.8	-0.1	34.4	18	9.4	14+	4	0	14.4	66	8	- 96	5	8	6	0	0	3.8	SSW	12.1	W	24	7	10	13	6.2	58
MANSFIELD	395			26.7	14.4	20.5	0.6	32.2	18	7.2	3	1	0			81	- 27	49	7	7	0	0						4	17	9	6.1	
SANDUSKY U	185			26.1	16.7	21.6	0.2	35.0	18	11.7	21	4	0			46	- 58	14	11	8	0	0	3.7	SW	10.7	SW	11	12	13	5	4.5	74
TOLEDO	206	991.7	1016.9	27.2	14.4	20.9	0.7	33.3	30+	10.0	21+	4	0	14.4	69	56	- 40	21	7	7	0	0	3.4	SW	11.6	W	23	8	13	9	5.6	71
YOUNGSTOWN	359	975.0	1017.4	25.6	13.9	19.7	-0.1	31.1	30+	6.7	7+	0	0	13.3	69	63	- 28	19	9	4	0	0	3.5	SSW	8.9*	SSW	10	8	11	11	6.0	
OKLAHOMA																																
OKLAHOMA CITY	390	971.2	1013.8	29.4	18.9	24.1	-0.7	33.9	20	15.0	4+	6	0	18.9	76	199	86	86	13	12	0	0	5.1	SSE	21.9	NW	22	4	15	11	6.3	74
TULSA	206	989.8	1014.0	29.4	18.9	24.0	-1.2	33.9	20	13.3	14+	5	0	17.8	73	140	21	82	12	8	0	0	4.0	SSE	14.8	NE	7	3	16	11	6.4	59
OREGON																																
ASTORIA	2	1018.6	1019.3	16.7	8.9	12.7	-1.1	21.1	7	4.4	6	0	0	9.4	81	47	- 29	22	7	0	0	0	4.6	NNW	13.0*	SSW	2	4	9	17	7.2	
BURNS U	1265	872.3		24.4	6.7	15.6	0.1	32.2	24	- 3.9	4	1	3	1.1	40	1	- 21	1	2	1	T	T						14	10	6	4.0	
EUGENE	110	1004.4		23.3	7.8	15.5	-0.6	29.4	24	3.9	3	0	0			17	- 19	11	3	0	0	0	3.6		10.7*	WNW	2	12	11	7	4.5	
MEACHAM	1234			18.9	4.4	11.8	-0.2	28.9	24	- 1.7	4	0	3			7	- 55	4	6	1	5	T						14	7	9	4.6	
MEDFORD	396	968.8	1016.1	28.3	6.7	17.5	-0.4	35.6	22	1.1	4	9	0	6.1	52	4	- 22	4	1	1	0	0	2.8	WNW	10.3*	WNW	25	20	7	3	2.7	
PENDLETON	452	961.7	1015.0	26.7	10.0	18.4	-0.1	36.1	24	3.3	13	4	0	3.3	40	4	- 26	2	2	2	0	0	4.3	WNW	13.0*	WNW	25	16	9	5	3.5	
PORTLAND	6	1012.2	1017.7	22.8	10.6	16.4	-0.2	29.4	23	6.7	9	0	0	8.9	63	20	- 23	12	4	0	0	0	3.8	NW	10.7	S	2	8	14	8	5.4	63
PORTLAND U	9			22.2	11.7	16.9	-0.6	30.0	23	7.2	4	0	0			22	- 21	13	5		0	0										
ROSEBURG	154	999.0		25.0	7.2	16.3	-0.1	30.6	24+	3.9	6+	0	0			12	- 26	12	2	0	0	0	2.5	N$	8.0	N	21	13	12	5	4.2	80
SALEM	59	1010.8	1018.2	23.3	7.2	15.2	-1.3	30.0	23	2.8	4	0	0	8.9	68	18	- 19	11	4	0	0	0	3.1	NW	11.2*	S	2	10	12	8	5.0	
SEXTON SUMMIT R	1169	884.9		19.4	6.7	13.0	-0.2	27.2	28	- 1.1	3	0	3			10	- 29	10	2	0	T	0	5.3	N				19	8	3	3.0	
PACIFIC AREA																																
CANTON ISLAND	2	1009.6	1010.0	31.1	25.6	28.5	-0.3	32.2	25+	23.9	13	2	0	22.2	72	13	- 55	5	7	0	0	0	4.1	E	9.4*	NNE	24	17	10	3	3.8	
ENIWETOK	5	1009.5		31.1	26.1	28.6	0.4	32.2	26+	23.3	7	4	0	23.9	76	88	3	48	19	0	0	0	5.5									
TAGUAC GUAM R	110			30.0	22.2	26.1	-0.7	31.1	21+	20.0	20+	0	0			202	53	51	25	3	0	0	2.2	E$	8.5	E	14					60
KOROR R	29	1006.0	1009.8	31.1	23.9	27.7	0.4	32.2	28+	22.2	29	6	0	24.4	86	218	-112	49	23	4	0	0	2.1	E	7.6	S	26+	0	1	29	9.7	41
MAJURO	3	1008.8	1009.2	30.0	25.6	27.9	1.0	31.1	18+	22.8	14	0	0	23.9	81	305	- 19	149	20	1	0	0	5.6	ENE	17.0	E	21	1	14	16	7.5	68
PONAPE R	37	1004.7	1009.5	31.1	23.3	27.1	0.4	32.2	19	21.7	15+	1	0	23.9	85	302	-122	81	25	9	0	0	1.6	NE	7.2	E	8	0	7	23	8.8	53
TRUK MOEN ISLAND	2	1009.0	1009.3	30.6	23.9	27.2	0.1	31.7	7	21.7	27	0	0	23.9	82	312	10	62	21	9	0	0	1.8	NNE	14.3	SE	24	1	11	18	8.0	18
WAKE ISLAND	3	1012.7	1013.1	30.6	24.4	27.6	0.1	31.7	29+	22.2	8+	0	0	23.3	79	132	84	51	17	2	0	0	4.5	ENE	11.6*	NE	7	3	17	10	6.3	
YAP R	17	1007.0	1009.0	31.1	23.9	27.4	-0.3	32.2	6+	22.8	26+	3	0	24.4	85	202	- 70	44	19	4	0	0	2.5	NE	13.0	E	14+	0	0	30	9.9	86

See footnotes at end of table

CLIMATOLOGICAL DATA

METRIC UNITS

State and Station	Elevation (ground)	Pressure		Temperature											Average relative humidity	Precipitation							Wind					No. of days (sunrise to sunset)			Sky cover, tenths (sunrise to sunset)	Possible sunshine
												No. of days							No. of days		Snow, Sleet				Fastest mile (1.6 kilometers)							
		Station Ø	Sea level	Average maximum	Average minimum	Average	Departure from normal	Highest	Date	Lowest	Date	Max 32.2 °C or above	Min. 0 °C or lower	Average dew point		Total	Departure from normal	Greatest in 24 hours	.25 mm. or more	With thunderstorms	Total	Maximum depth on ground	Average speed	Prevailing direction	Speed	Direction	Date	Clear, 0-3	Partly cloudy, 4-7	Cloudy, 8-10		
	M.	Mb.	Mb.	C.	C.	C.	C.	C.		C.				C.	%	Mm.	Mm.	Mm.			Mm.	Mm.	M p.s.		M.p.s.							%
PENNSYLVANIA																																
ALLENTOWN	115	1002.8	1017.0	27.2	15.6	21.3	0.6	33.3	18	10.6	3	2	0	14.4	68	90	- 14	42	8	6	0	0	3.6	SSW	17.9*	NW	15	8	9	13	5.9	
ERIE	223	990.8	1016.9	24.4	14.4	19.3	0.1	31.1	9	7.8	3	0	0	13.3	71	126	49	63	9	4	0	0	4.9	S	15.6*	SW	10	12	9	9	5.0	
HARRISBURG	102	1002.7	1016.6	28.3	16.7	22.3	0.4	33.9	18	11.1	7	3	0	15.6	68	102	15	30	10	3	0	0	2.5	W	15.2	NW	1	7	10	13	6.4	64
PHILADELPHIA	2	1012.0	1016.6	27.2	16.7	22.1	0.4	32.8	18	12.2	15	2	0	16.1	71	188	85	92	10	6	0	0	3.4	WSW	9.8	W	19+	6	9	15	6.7	58
PHILADELPHIA U	11			27.8	18.3	23.1	0.5	35.0	18	13.3	13	5	0			0		0														
PITTSBURGH	351	987.0	1017.7	27.2	14.4	20.7	0.5	32.8	30+	10.0	21+	2	0	14.4	70	46	- 50	22	6	5	0	0	3.1	NNE	13.0*	NNW	1	6	9	15	6.5	61
PITTSBURGH U	228			27.8	17.2	22.4	0.3	32.8	23	11.7	3	3	0			57	- 43	25	7		0	0										60
READING U	81	1004.4	1015.0	27.8	17.2	22.5	0.2	33.9	18	12.8	3	2	0			37	- 57	16	8	2	0	0	3.5	S$	16.1	NW	1	9	10	11	5.8	66
SCRANTON	287	983.0	1017.0	26.1	14.4	20.3	0.7	32.2	18	8.3	3	1	0	12.8	65	43	- 56	11	8	5	0	0	3.3	WSW	8.5	SW	1	6	10	14	6.6	63
WILLIAMSPORT	161	998.7	1017.8	27.2	13.9	20.4	-0.3	33.9	18	8.9	7+	1	0	13.9	69	54	- 28	15	9	6	0	0	2.5	N	12.1*	WNW	1	5	12	13	6.6	
RHODE ISLAND																																
BLOCK ISLAND	34	1011.5		21.7	14.4	17.9	0.8	27.8	26	10.0	3	0	0			173	108	57	9	2	0	0						10	9	11	5.6	
PROVIDENCE	17	1010.1	1016.3	24.4	13.9	19.2	0.2	31.7	1	10.0	28+	0	0	13.3	73	140	70	51	11	6	0	0	4.6	SSW	11.2*	SW	10	7	8	15	6.5	61
SOUTH CAROLINA																																
CHARLESTON	12	1014.3	1016.3	29.4	20.0	24.6	-1.1	33.3	24	16.7	30	1	0	20.0	80	408	282	101	18	13	0	0	3.2	S	16.5Y	SW	24	4	10	16	7.0	69
CHARLESTON U	3			28.3	21.7	24.9	-1.5	32.2	24	18.9	30	1	0			363	255	68	18		0	0	4.5		18.8	NW	26					
COLUMBIA	66	1003.5	1016.2	31.1	19.4	25.2	-1.3	36.1	24	12.8	30	9	0	18.9	75	121	24	52	10	8	0	0	3.0	ENE	15.6*	WNW	20	5	11	14	6.5	40
FLORENCE	45	1010.7	1016.5	30.6	19.4	25.1	-0.9	36.1	24	16.1	30+	9	0	19.4	77	116	7	29	13	10	0	0	3.5	NNE	11.2*	NNW	24	4	13	13	6.6	
GREENVILLE	308	979.7	1016.4	30.0	19.4	24.7	-1.4	35.6	24	13.9	30	8	0	18.9	77	179	107	61	11	9	0	0	2.8	NE	8.5	W	24	8	8	14	6.6	49
SPARTANBURG	244	987.2	1016.6	29.4	18.9	23.9	-1.4	33.9	24	13.9	30	7	0	17.8	75	278	203	63	17	11	0	0	2.7	NE	11.2*	NNW	26	6	10	14	6.4	
SOUTH DAKOTA																																
HURON	391	968.2	1014.8	24.4	13.9	19.1	-0.9	32.2	28	5.0	1	1	0	15.6	81	144	64	31	13	8	0	0	4.6	SSE	21.0	S	14	8	10	12	6.4	58
RAPID CITY	965	901.2	1013.8	24.4	12.2	18.5	0.2	32.2	27	5.0	5	1	0	12.2	71	102	24	32	15	13	0	0	4.7	SSE	24.1	SW	14	5	15	10	6.0	48
SIOUX FALLS	433	963.8	1015.0	25.6	14.4	19.8	-0.3	32.8	28	7.2	1	1	0	14.4	74	101	- 9	40	10	6	0	0	4.1	SSE	17.9*	WSW	5	5	12	13	6.4	
TENNESSEE																																
BRISTOL	459	963.3	1017.1	28.3	16.7	22.4	-0.2	32.2	19	12.8	30	1	0	16.1	73	85	- 1	24	11	9	0	0	1.7	NE	10.3*	NNW	19	6	11	13	6.3	
CHATTANOOGA	204	989.1	1016.4	30.6	18.9	24.5	-0.3	35.0	24	13.3	15	7	0	18.9	77	135	41	35	15	10	0	0	2.5	S	15.6	S	25	7	10	13	6.2	60
KNOXVILLE	290	981.8	1016.9	29.4	17.8	23.6	-1.0	32.8	19	13.3	30+	3	0	17.2	71	128	44	43	12	9	0	0	3.0	NE	16.5	E	27	7	10	13	6.1	57
MEMPHIS	80	1000.7	1015.2	30.0	20.0	25.1	-1.1	35.0	18	15.6	15+	6	0	20.0	77	145	52	46	12	11	0	0	3.3	S	13.9	S	1	6	8	16	6.3	65
MEMPHIS U	83			30.0	21.1	25.4	-0.8	34.4	17	16.7	15+	6	0			129	30	39	13		0	0										
NASHVILLE	176	996.0	1015.7	30.0	18.3	23.9	-1.3	33.9	23+	12.8	14	6	0	18.3	77	185	103	60	12	14	0	0	2.4	S	14.8	NW	23	5	13	12	6.0	63
OAK RIDGE	276	983.8		28.9	17.2	22.9	-1.0	32.2	18	11.7	15	1	0			205	123	51	14	10	0	0	1.3		20.6		19	10	11	9	5.4	
TEXAS																																
ABILENE	536	952.1	1012.3	31.7	18.9	25.2	-1.7	36.1	6	14.4	3	15	0	17.8	66	194	126	53	11	11	0	0	4.7	SSE	20.6	NW	9	11	12	7	4.5	67
AMARILLO	1099	888.1	1011.4	29.4	15.6	22.4	-1.7	35.6	23	10.6	3	9	0	13.9	66	258	185	112	12	15	0	0	6.8	SSE	23.2	S	23	11	12	7	5.0	66
AUSTIN	182	991.7	1013.3	32.2	21.7	26.8	-0.9	36.7	19	17.8	3	20	0	20.6	74	209	127	49	12	13	0	0	3.2	SSE	16.1	NE	13	4	15	11	6.1	65
BROWNSVILLE	5	1010.0	1012.5	32.2	23.9	27.9	-0.3	33.3	20+	20.6	26+	20	0	22.8	76	101	26	68	9	4	0	0	5.9	SE	16.5	NE	2	5	18	7	5.4	61
CORPUS CHRISTI	13	1011.9	1013.1	32.2	23.3	27.9	-0.1	36.1	19	18.9	2	22	0	22.8	77	74	14	20	8	6	0	0	5.1	SE	25.0	SE	1	7	12	11	6.1	62
DALLAS	147	995.6	1013.8	31.7	21.1	26.2	-1.2	35.0	24+	17.8	3	14	0	19.4	69	118	35	37	12	10	0	0	5.0	SSE	13.9	SE	8	7	10	13	6.2	60
DEL RIO U	292			34.4	22.8	28.5	0.3	38.9	20	16.7	1	25	0			28	- 33	[illegible]	6	5	0	0										
EL PASO	1194	883.6	1007.7	35.0	18.3	26.7	-0.3	38.9	23	13.3	17	29	0	2.2	23	T	- 18	T	0	1	0	0	3.4	ESE	18.8	E	25+	29	0	1	1.4	94
FORT WORTH	166	993.1	1013.5	32.2	21.1	26.6	-0.9	36.1	24+	17.8	3	17	0	19.4	69	176	101	72	15	13	0	0	4.9	SE	15.6*	SE	27	7	10	13	5.8	
GALVESTON U	2			29.4	24.4	26.9	-0.7	31.7	20	18.9	4	0	0			221	154	76	11	9	0	0	4.6		17.9	NW	19+					80
GALVESTON	2	1012.5	1014.7	30.6	24.4	27.4	-0.4	32.2	24+	19.4	4+	3	0	21.1	70	137	74	35	14	12	0	0	4.2	SE				5	15	10	5.8	
HOUSTON U	12			31.7	23.9	27.9		35.0	18	20.0	4	19	0			205	108	96	12	9	0	0										
HOUSTON	15	1011.3	1013.9	31.1	21.7	26.6	-1.6	33.3	23+	18.9	4	15	0	22.8	85	188	94	55	11	13	0	0	3.6	SSE				1	20	9	6.4	72
LAREDO	152	995.9	1011.1	36.1	23.3	29.8	-0.1	38.9	20	18.9	3+	27	0	20.0	61	40	[illegible]	16	7	7	0	0	6.0	SE	19.2*	S	10	11	14	5	4.5	
LUBBOCK	988	902.4	1012.1	31.1	[illegible]	23.8	-1.5	36.1	23+	11.1	3	15	0	14.4	61	65	1	23	9	8	0	0	7.3	S	24.6*	NNW	24	11	15	4	4.2	
MIDLAND	872	914.2	[illegible]	[illegible]	[illegible]	[illegible]	-1.3	37.2	21+	15.0	10+	22	0	14.4	53	46	[illegible]	14	4	7	0	0	5.7	SSE	20.6*	NW	11	14	12	4	[illegible]	
PORT ARTHUR	5	1012.8	[illegible]	31.7	21.7	[illegible]	-0.2	33.9	23+	18.9	4+	21	0	[illegible]	86	148	[illegible]	[illegible]	9	14	0	0	[illegible]	S	14.8	N	19	2	18	10	6.6	56
SAN ANGELO	[illegible]	946.2	[illegible]	34.4	[illegible]	[illegible]	-0.8	38.3	16	16.1	13	23	0	16.1	55	13	- 27	12	[illegible]	5	0	0	4.3	SSE	12.5*	NNE	16	16	7	7	4.2	
SAN ANTONIO	241	988.2	1012.7	[illegible]	[illegible]	[illegible]	-0.2	36.1	19	17.2	1	23	0	20.6	[illegible]	62	[illegible]	41	6	5	0	0	4.6	SE	13.9	SE	26	9	18	3	4.6	64
VICTORIA	32	1008.9		32.2	[illegible]	27.1	-0.3	34.4	21+	17.8	2	17	0	22.2	73	[illegible]	27	54	[illegible]	8	0	0	4.2		19.2*		2	3	17	10	6.4	
WACO	152	992.8	1013.6	31.7	21.7	26.6	-1.2	35.0	20	18.3	4+	18	0	20.6	73	119	51	32	[illegible]	11	0	0	5.2	SSE	15.6	WSW	1	7	16	7	5.6	
WICHITA FALLS	[illegible]	[illegible]	[illegible]	31.1	19.4	25.1	-1.0	35.6	[illegible]	15.6	3	14	0	[illegible]	72	211	[illegible]	67	11	12	0	0	4.1	SSE	21.5*	W	7	11	9	10	5.4	
UTAH																																
MILFORD	1533	842.9		28.9	6.7	17.8	-0.8	35.7	26	0.6	8	12				6	- 5	3	3	2	0	0						21	4	5	2.7	

See footnotes at end of table

CLIMATOLOGICAL DATA

METRIC UNITS

State and Station	Elevation (ground)	Pressure		Temperature											Average relative humidity	Precipitation							Wind					No. of days (sunrise to sunset)			Sky cover, tenths (sunrise to sunset)	Possible sunshine
												No. of days							No. of days		Snow, Sleet				Fastest mile (1.6 kilometers)							
		Station Ø	Sea level	Average maximum	Average minimum	Average	Departure from normal	Highest	Date	Lowest	Date	Max. 32.2 °C or above	Min. 0 °C or lower	Average dew point		Total	Departure from normal	Greatest in 24 hours	.25 mm. or more	With thunderstorms	Total	Maximum depth on ground	Average speed	Prevailing direction	Speed	Direction	Date	Clear, 0-3	Partly cloudy, 4-7	Cloudy, 8-10		
	M.	Mb.	Mb.	°C.	°C.	C.	°C.	°C.		C.				°C.	%	Mm.	Mm.	Mm.			Mm.	Mm.	M.p.s.		M.p.s.							%
UTAH																																
SALT LAKE CITY	1286	865.6	1011.5	28.9	11.1	20.1	0.7	37.8	27	1.7	7	11	0	4.4	41	12	-12	11	2	3	0	0	4.3	S	17.9	N	19	16	10	4	3.9	83
WENDOVER	1291	868.6		27.8	14.4	21.2	0.2	36.1	27	5.0	4	8	0			18	7	15	5	8	0	0						16	9	5	3.3	
VERMONT																																
BURLINGTON	101	1000.7	1015.3	25.6	11.1	18.1	-0.6	32.2	17	3.9	9+	1	0	11.7	68	68	-21	30	6	4	0	0	3.1	SSW	12.1	N	30	8	7	15	6.3	61
VIRGINIA																																
LYNCHBURG	289	992.2		26.7	16.7	21.7	-1.1	32.2	19	13.3	29+	1	0			125	22	44	9	6	0	0	3.0		13.4	NE	30	6	9	15	6.7	53
NORFOLK	8	1015.5	1017.0	27.8	18.3	23.0	-1.2	33.3	24+	11.7	9	3	0	17.8	76	77	-15	33	10	3	0	0	4.7	SW	17.9	NE	30	7	8	15	6.7	51
RICHMOND	49	1010.7	1017.0	29.4	17.2	23.3	-0.3	36.1	19	9.4	9	10	0	18.3	78	141	46	95	9	4	0	0	3.1	SW	11.2	NE	30	6	10	14	6.9	51
ROANOKE	358	975.7	1017.5	28.3	16.1	22.4	-0.6	33.3	19+	12.2	16+	6	0	16.1	72	78	-18	21	11	8	0	0	3.1	SE	11.2*	SE	27+	7	12	11	6.1	
WASHINGTON																																
OLYMPIA	58	1011.2	1018.4	22.2	6.7	14.3	-0.7	30.6	23	1.7	6	0	0	7.8	68	23	-23	15	6	0	0	0	3.0	SW	10.3*	SW	2	8	13	9	5.9	
SEATTLE TACOMA	122	1004.1	1018.0	21.1	10.0	15.5	0.3	29.4	23	5.0	4	0	0	7.8	65	17	-23	5	8	0	0	0	4.0	SW	10.7*	WSW	25+	8	9	13	6.0	
SEATTLE	4		1018.0											8.9	67	0		0					3.1	N								
SEATTLE U	4			21.1	11.7	16.2	-0.1	28.9	23	7.8	3	0	0			18	-18	5	9		0	0			14.8	SW	2					69
SPOKANE	718	945.8	1014.0	23.9	8.3	16.2	-0.2	33.3	24	1.1	6	2	0	4.4	50	20	-18	12	6	5	0	0	3.7	SW	13.9	W	25	12	12	6	4.4	81
STAMPEDE PASS R	1206	881.1		14.4	4.4	9.4	0.0	23.9	23	-1.1	4+	0	3			51	-53	24	10	2	203	559						7	8	15	6.4	
TATOOSH ISLAND	31	1016.3	1019.0	13.3	8.9	11.1	-1.1	15.6	27+	6.7	25+	0	0	9.4	89	45	-27	20	9	0	0	0	5.0	SW	32.6	S	2	2	13	15	7.1	45
WALLA WALLA U	289	978.7		26.1	12.2	19.2	-0.3	35.0	24	6.1	3	3	0			11	-20	5	4	2	0	0	2.4	W$	12.5	W	25	17	6	7	4.0	83
YAKIMA	323	975.6	1014.3	26.7	7.8	17.3	-0.7	34.4	24	0.6	4	4	0	4.4	44	2	-19	1	2	3	0	0	3.4	NNW	13.4*	NNW	12	15	9	6	4.0	
WEST INDIES																																
SAN JUAN P.R.	5	1014.3	1016.6	30.0	23.9	26.9	0.3	32.2	7	21.1	13	1	0	22.8	81	170	26	29	22	12	0	0	3.5	ENE	11.6	E	22	3	11	16	7.0	39
SWAN ISLAND	9	1010.6		29.4	25.0	27.4	-0.5	30.6	29+	22.8	9	0	0			151	-13	58	20	10	0	0						1	13	16	7.4	
WEST VIRGINIA																																
CHARLESTON	286	981.5	1016.6	28.3	17.2	22.8	0.8	32.2	23+	13.3	16	2	0	17.2	75	125	32	57	8	7	0	0	1.6	WSW	8.0*	WSW	23	3	13	14	7.0	
ELKINS	600	949.2	1018.0	25.6	12.2	18.9		28.9	23	7.2	30	0	0	14.4	78	110		38	7	4	0	0	1.8	S	9.4	N	5	2	11	17	7.5	
HUNTINGTON U	252	986.7	1016.8	27.2	15.6	21.3	-1.9	31.1	18	9.4	15	0	0	16.7	78	97	-11	39	13	5	0	0	2.0	SSW	7.6*	SW	23	7	9	14	6.4	
PARKERSBURG U	187			28.3	16.1	22.4	-0.1	32.2	30+	11.7	15	4	0			26	-82	7	9	5	0	0	2.3		12.1	W	23					58
WISCONSIN																																
GREEN BAY	208	994.1	1016.8	23.3	12.2	17.8	-0.3	29.4	28	5.6	2	0	0	12.8	75	110	25	31	9	6	0	0	2.8	NE	13.0	W	18	8	9	13	5.8	62
LA CROSSE	199	991.6		25.6	14.4	20.0	-0.4	32.8	28	8.9	3+	1	0	12.8	69	57	-50	20	10	8	0	0	3.8	S	15.6*	WSW	17	6	8	16	6.8	
MADISON	262	981.4	1016.3	26.1	12.8	19.3	0.3	32.8	17	5.6	13	2	0	13.3	70	53	-47	26	8	5	0	0	3.8	ENE	22.4	W	17	7	7	16	6.3	60
MILWAUKEE	205	992.8	1017.8	23.9	11.7	17.7	0.3	33.9	17	6.1	3	3	0	12.2	75	34	-59	10	9	8	0	0	4.5	NNE	15.6	N	11	9	7	14	5.9	61
WYOMING																																
CASPER	1621	837.5	1012.5	23.9	8.9	16.4	-0.9	33.9	27	1.7	7	2	0	6.1	57	44	13	12	12	14	T	0	4.0	WSW	16.5*	WNW	1	11	12	7	5.0	
CHEYENNE	1867	814.4	1013.4	22.8	8.3	15.5	-0.9	30.6	28	1.1	8	0	0	8.3	67	72	18	22	16	19	0	0	4.8	WNW	14.8	SW	16	5	15	10	5.9	52
LANDER	1696	835.1	1012.1	24.4	8.3	16.3	-0.3	34.4	26	1.1	7	2	0	4.4	50	12	-23	6	5	6	0	0	3.1	WSW	23.2	SW	3	7	17	6	5.2	75
SHERIDAN	1202	883.8	1009.7	23.9	8.9	16.2	-0.4	34.4	26	1.7	5	1	0	6.7	59	77	12	47	15	15	0	0	2.9	WNW	21.9	SW	3	9	10	11	5.7	67

Data from airport unless otherwise specified. U indicates Urban, R indicates Rural, sites.

* Value entered in column headed "Fastest Mile" is the highest observed wind speed. This station is not equipped with an automatic recording wind instrument.

A Maximum hourly average.

+ And also on an earlier date or dates.

Ø Station pressures apply to elevations shown in the "Elevations - Station Pressure" table of the annual issue of this publication.

B Number of days maximum 21.1°C. or above for Alaskan Stations.

$ Wind direction to 8 compass points only.

Y Peak Gust.

Data in this table is obtained by conversion from data in the English Units table.

MONTHLY AND SEASONAL HEATING DEGREE DAYS

(Base 65°F) 1961 - 1962

State and Station	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	Total for Season	Normals July-June
ALABAMA														
Birmingham	0	0	3	93	301	556	718	285	398	154	1	0	2509	2780
Huntsville	0	0	11	159	374	647	806	383	521	233	5	0	3139	
Mobile	0	0	0	42	193	339	511	141	270	83	0	0	1579	1612
Montgomery	0	0	2	91	267	453	564	196	330	134	2	0	2039	2137
ALASKA														
Anchorage	221	318	489	1112	1450	1884	1593	1267	1394	837	621	338	11524	10789
Annette	116	146	355	591	852	937	893	798	903	646	489	349	7075	7096
Barrow	825	911	927	1523	1897	2521	2089	1988	2437	2002	1492	906	19518	19994
Barter Island	752	825	951	1631	2100	2618	2140	1961	2446	1963	1467	878	19732	
Bethel	421	396	580	1195	1375	2176	2039	1278	1540	1240	885	449	13574	12880
Cold Bay	470	442	504	806	877	1192	1301	882	1042	987	821	606	9930	9687
Cordova	369	421	556	853	1067	1459	1191	1060	1229	798	704	490	10197	9615
Fairbanks	179	294	622	1353	2078	2759	2258	1620	1765	1040	617	201	14786	14158
Juneau	262	339	511	760	1027	1246	1182	1097	1095	756	627	447	9349	8888
King Salmon	385	399	521	1143	1302	1813	1761	1159	1513	968	736	395	12095	11229
Kotzebue	420	378	655	1362	1738	2463	2070	1622	1923	1580	1068	644	15923	16151
McGrath	311	389	616	1346	1893	2678	2318	1554	1670	1145	734	304	14958	14390
Nome	536	498	637	1198	1450	2186	1910	1363	1614	1391	1006	675	14464	14086
St. Paul	618	562	591	835	929	1320	1388	1004	1198	1074	961	726	11206	10839
Shemya	625	520	506	701	905	995	982	919	982	832	786	648	9401	
Yakutat	360	368	496	801	1040	1230	1179	1049	1174	816	692	496	9701	9354
ARIZONA														
Flagstaff	21	50	330	628	919	1203	1168	965	1135	517	518	213	7667	7525
Phoenix (U)	0	0	0	39	190	388	385	211	255	0	0	0	1468	1492
Phoenix	0	0	0	51	233	388	414	255	277	2	0	0	1620	1698
Prescott	0	1	51	288	645	890	899	670	748	208	217	31	4648	4533
Tucson	0	0	0	61	312	444	491	285	357	5	7	0	1962	1776
Winslow	0	0	33	312	662	1305	1278	789	712	194	152	10	5447	4702
Yuma	0	0	0	18	118	266	253	138	149	0	0	0	942	951
ARKANSAS														
Ft. Smith	0	0	14	125	454	769	952	498	501	204	4	0	3521	3188
Little Rock	0	0	10	120	425	719	857	445	471	198	5	0	3250	2982
Texarkana	0	0	4	90	371	611	756	314	395	133	1	0	2675	2362
CALIFORNIA														
Bakersfield	0	0	0	107	324	607	687	424	349	58	62	2	2620	2115
Bishop	0	0	39	264	655	834	819	674	695	184	214	20	4398	4222
Blue Canyon	32	10	155	396	642	784	708	875	929	445	516	137	5629	5719
Burbank	0	0	5	63	215	304	278	318	327	76	138	54	1778	1808
Eureka (U)	250	234	281	377	459	567	607	478	517	431	388	347	4936	4632
Fresno	0	0	0	126	382	654	724	461	392	66	65	6	2876	2532
Long Beach	0	0	0	23	153	357	314	336	346	89	105	43	1766	
Los Angeles (U)	0	0	2	32	161	243	240	309	298	66	97	61	1509	1451
Los Angeles	0	0	1	53	182	331	275	308	344	139	110	38	1781	2015
Mt. Shasta (R)	24	11	214	389	754	950	997	796	815	414	440	135	5939	5913
Oakland	50	19	39	152	345	540	514	406	396	197	211	108	2977	3163
Point Arguello (R)	205	159	181	220	319	430	453	441	484	369	330	274	3865	
Red Bluff	0	0	2	112	365	609	568	489	426	80	59	1	2711	2546
Sacramento (U)	0	0	7	117	342	597	642	458	375	97	88	6	2729	2600
Sacramento	0	0	6	122	378	640	709	482	425	121	82	4	2969	2822
Sandberg (R)	6	0	93	291	590	754	748	732	784	281	401	100	4780	4243
San Diego	0	0	0	33	152	269	257	231	280	103	77	33	1435	1574
San Francisco (U)	167	127	91	156	246	456	398	364	376	242	297	231	3151	3069
San Francisco	77	33	61	161	346	542	541	410	444	265	251	167	3298	3421
San Jose (U)	6	0	14	110	281	494	461	379	362	147	154	37	2445	2410
Santa Maria	59	38	106	182	348	421	444	407	461	257	327	209	3259	2934
COLORADO														
Alamosa	57	53	354	680	1080	1644	1539	969	1178	614	452	182	8802	8659
Colorado Springs	29	5	321	503	898	1246	1324	924	967	503	202	96	7018	6254
Denver	14	0	273	459	902	1150	1411	976	934	437	175	72	6803	6132
Grand Junction	0	0	196	367	809	1290	1295	752	819	286	148	18	5980	5796
Pueblo	4	0	184	383	810	1230	1278	815	864	364	103	28	6063	5709
CONNECTICUT														
Bridgeport	1	3	41	247	584	982	1094	1031	825	507	207	24	5546	5896
Hartford	5	8	78	322	706	1110	1225	1160	854	501	230	22	6221	6139
Middletown	4	1	68	305	657	657	1178	1133	917	526	271	45	5762	
New Haven	0	1	41	263	604	1001	1114	1044	824	522	226	24	5664	6026
DELAWARE														
Wilmington	0	0	36	250	553	976	1042	940	729	400	122	6	5054	4910
DIST. OF COLUMBIA														
Washington (U)	0	0	15	149	422	831	1014	791	588	279	68	0	4157	4258
Washington	0	0	16	181	459	882	932	848	642	302	60	0	4322	4333
FLORIDA														
Apalachicola (U)	0	0	0	25	105	253	408	119	199	58	0	0	1167	1307
Daytona Beach	0	0	0	8	33	192	259	88	179	55	0	0	814	868
Fort Myers	0	0	0	0	3	97	96	19	42	3	0	0	260	405
Jacksonville	0	0	0	34	96	268	363	128	206	65	0	0	1160	1243
Key West	0	0	0	0	0	20	24	2	1	0	0	0	47	77
Lakeland (U)	0	0	0	6	17	146	175	46	109	19	0	0	518	649
Miami	0	0	0	0	0	64	58	7	30	2	0	0	161	178
Miami Beach	0	0	0	0	0	38	41	2	15	0	0	0	96	123
Orlando	0	0	0	5	16	149	176	46	111	21	0	0	524	650
Pensacola (U)	0	0	0	32	154	296	463	139	245	76	0	0	1405	1435
Tallahassee	0	0	0	61	168	337	433	140	253	80	0	0	1472	1519
Tampa	0	0	0	5	15	137	175	55	106	19	0	0	512	674
West Palm Beach	0	0	0	1	3	80	69	14	39	3	0	0	209	248
GEORGIA														
Athens	0	0	9	126	284	650	710	416	491	234	2	0	2922	2800
Atlanta	0	0	12	150	310	658	736	410	525	235	4	0	3040	2826
Augusta	0	0	6	123	263	519	597	323	408	180	0	0	2419	2138
Columbus	0	0	0	84	248	501	610	238	391	163	0	0	2235	2396
Macon	0	0	3	79	222	479	577	237	364	142	0	0	2103	2049
Rome	0	0	16	212	353	697	812	429	535	278	7	0	3339	3138
Savannah	0	0	3	66	217	414	502	223	316	122	0	0	1863	1710
Thomasville (U)	0	0	0	41	148	340	442	120	258	83	0	0	1432	1472
IDAHO														
Boise	0	0	239	485	833	1052	1354	912	812	377	275	85	6424	5890
Idaho Falls 46W (R)	8	4	420	695	1048	1390	1699	1208	1203	568	426	153	8822	8556
Idaho Falls 42NW (R)	10	14	444	721	1050	1548	1816	1203	1295	585	391	156	9233	8925
Lewiston	0	0	169	476	864	954	1013	764	724	336	312	81	5693	5483
Pocatello	2	0	342	602	914	1181	1526	1001	1003	471	378	110	7530	6976
ILLINOIS														
Cairo (U)	0	0	16	156	514	810	985	626	630	266	4	0	4007	3756
Chicago (Midway)	3	2	77	293	718	1204	1450	1091	935	480	117	28	6398	6310
Chicago (O'Hare)	15	11	126	360	747	1223	1489	1128	970	504	147	50	6770	
Moline	1	0	121	309	722	1297	1510	1150	999	481	78	22	6690	6364
Peoria	2	5	120	347	752	1262	1501	1088	960	455	63	14	6569	6087
Rockford	9	3	133	372	796	1300	1559	1213	1038	527	134	34	7118	
Springfield	0	4	75	275	669	1150	1381	963	855	397	30	4	5803	5693

Data from airport unless otherwise specified.
U indicates Urban, R indicates Rural, sites.

MONTHLY AND SEASONAL HEATING DEGREE DAYS

(Base 65°F)

1961 - 1962

State and Station	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	Total for Season	Normals July-June
INDIANA														
Evansville	0	1	44	208	582	948	1131	706	667	325	3	0	4615	4360
Ft. Wayne	2	1	79	339	750	1222	1332	1080	897	484	86	7	6279	6287
Indianapolis	0	3	60	276	684	1108	1272	957	839	441	41	2	5683	5611
South Bend	7	5	79	342	740	1178	1413	1140	955	539	133	29	6560	6524
IOWA														
Burlington	0	0	125	308	729	1254	1476	1098	970	447	46	13	6466	6101
Des Moines	0	0	167	311	841	1434	1609	1239	1086	474	32	17	7210	6446
Dubuque	10	1	174	404	850	1419	1612	1304	1109	575	134	44	7636	7271
Sioux City	0	6	189	320	847	1491	1560	1254	1215	487	44	30	7443	7012
Waterloo	0	3	184	343	836	1436	1650	1345	1203	561	105	26	7692	7144
KANSAS														
Concordia (U)	0	0	145	225	740	1262	1275	917	871	361	11	23	5830	5323
Dodge City	0	1	126	247	777	1065	1188	777	739	344	13	34	5311	5058
Goodland	0	0	245	404	910	1215	1295	892	915	423	78	61	6438	6367
Topeka	0	5	116	257	714	1234	1352	896	803	393	10	4	5784	5209
Wichita	0	2	86	184	688	1097	1213	776	665	315	8	4	5038	4571
KENTUCKY														
Lexington	0	0	32	226	588	907	1081	726	718	411	21	3	4713	4979
Louisville	0	0	30	232	593	877	1065	720	694	385	16	0	4612	4439
LOUISIANA														
Alexandria	0	0	6	123	293	474	641	202	357	123	4	0	2223	
Baton Rouge	0	0	0	57	238	362	542	126	275	89	0	0	1689	1595
Lake Charles	0	0	0	32	205	331	525	141	264	71	0	0	1569	1543
New Orleans (U)	0	0	0	11	134	255	*451	90	229	67	0	0		
New Orleans	0	0	0	26	173	306	467	98	250	87	0	0	1407	1317
Shreveport	0	0	1	71	320	518	690	227	356	104	1	0	2288	2117
MAINE														
Caribou	61	104	188	580	905	1343	1713	1613	1054	858	492	161	9072	10173
Greenville (U)	90	87	166	586	932	1364	1694	1570	1165	849	527	182	9212	
Portland	66	47	104	433	751	1196	1369	1307	976	686	438	107	7480	7681
MARYLAND														
Baltimore (U)	0	0	12	153	451	867	939	878	649	298	73	0	4320	4203
Baltimore	0	0	30	230	533	975	1004	909	704	360	100	0	4845	4787
Frederick	1	2	61	288	563	1023	1072	970	792	410	111	1	5294	4854
MASSACHUSETTS														
Blue Hill Obs. (R)	12	20	69	315	692	1093	1208	1136	901	518	303	64	6331	
Boston	6	3	51	246	604	991	1118	1066	814	468	271	35	5673	5791
Nantucket	21	9	53	275	582	883	1018	947	866	576	384	113	5727	6102
Pittsfield	38	49	100	414	820	1227	1363	1286	999	636	329	91	7352	7694
Worcester	24	29	88	382	758	1175	1280	1195	943	596	329	70	6869	
MICHIGAN														
Alpena	55	88	172	514	868	1251	1514	1479	1169	758	334	185	8387	8073
Detroit (City AP)	4	2	64	276	705	1108	1318	1157	922	486	134	26	6202	6404
Detroit (M. Wayne Co.)	4	5	74	323	742	1124	1342	1190	978	558	170	26	6536	
Detroit (Willow Run)	2	3	83	361	779	1165	1346	1160	922	516	138	20	6495	6469
Escanaba (U)	31	38	208	501	872	1337	1598	1404	1155	803	355	161	8463	8657
Flint	24	21	103	369	798	1183	1455	1253	1021	595	205	61	7088	7128
Grand Rapids	4	14	89	374	741	1158	1409	1209	997	581	167	35	6778	7075
Lansing	17	26	100	392	772	1194	1459	1237	1023	603	194	56	7073	
Marquette (U)	55	41	224	494	873	1313	1568	1406	1128	801	372	259	8534	8529
Muskegon	10	8	80	363	703	1126	1345	1227	1022	607	184	33	6708	7089
S. Ste. Marie	66	65	214	532	913	1362	1687	1580	1149	809	383	186	8946	9475
MINNESOTA														
Duluth	58	32	343	597	1070	1612	1912	1609	1255	917	468	263	10136	9937
International Falls	30	49	395	647	1148	1707	2109	1722	1209	911	394	126	10447	10600
Minneapolis	0	10	239	396	938	1536	1794	1488	1248	691	198	68	8606	7853
Rochester	4	11	244	438	992	1540	1731	1442	1266	707	190	63	8628	8095
St. Cloud	8	9	278	506	1022	1618	1818	1518	1213	745	223	84	9042	8893
MISSISSIPPI														
Jackson	0	0	5	109	308	516	690	236	387	151	2	0	2404	2202
Meridian	0	0	7	131	315	513	671	255	401	142	5	0	2440	2333
Vicksburg (U)	0	0	6	88	316	500	691	218	379	146	0	0	2344	2000
MISSOURI														
Columbia	0	7	80	232	647	1099	1289	831	808	380	11	5	5389	5113
Kansas City	0	1	100	196	626	1124	1280	835	766	339	5	3	5275	4888
St. Joseph	0	0	121	262	723	1316	1423	988	888	405	13	8	6147	5336
St. Louis (RFC)	0	0	33	178	555	969	1144	752	733	327	16	0	4707	4469
St. Louis	0	0	52	211	623	1015	1242	792	783	370	25	1	5114	4699
Springfield	0	4	69	214	633	984	1169	682	719	375	14	2	4865	4693
MONTANA														
Billings	2	3	379	543	1008	1249	1402	1148	1094	428	304	89	7649	7106
Butte	44	41	606	813	1225	1498	1806	1319	1330	705	580	298	10265	9760
Glasgow	0	2	419	623	1116	1691	1643	1460	1410	530	347	66	9307	8690
Great Falls	4	9	449	566	1043	1378	1426	1236	1208	501	432	140	8392	7555
Havre	4	7	432	602	1158	1672	1513	1360	1373	529	360	86	9096	8213
Helena	1	7	476	652	1109	1311	1528	1133	1104	527	404	147	8399	8250
Kalispell	11	15	467	768	1146	1365	1488	1094	1089	570	439	222	8674	8055
Miles City	0	3	386	552	1046	1465	1497	1239	1199	471	259	53	8170	7850
Missoula	6	10	448	734	1128	1343	1541	1117	1048	580	455	234	8644	7873
NEBRASKA														
Grand Island	0	0	203	327	883	1399	1391	1097	1122	431	48	37	6938	6311
Lincoln (U)	0	4	183	268	793	1337	1372	1068	989	414	22	23	6473	5865
Norfolk	0	4	233	372	891	1455	1498	1228	1201	501	68	39	7490	7065
North Platte	0	0	278	479	926	1312	1333	1062	1017	463	90	57	7017	6546
Omaha	0	4	174	283	805	1384	1444	1116	1020	431	22	19	6702	6160
Omaha N. Omaha AP	0	6	204	322	848	1442	1507	1173	1087	467	34	26	7116	
Scottsbluff	1	0	291	501	961	1211	1361	1021	981	439	177	73	7017	6841
Valentine	0	0	301	474	915	1338	1441	1209	1196	510	167	69	7620	7075
NEVADA														
Elko	0	2	341	606	985	1177	1424	1018	974	504	453	164	7648	7335
Ely	6	19	368	661	1029	1230	1381	987	1098	522	490	176	7967	7443
Las Vegas	0	0	0	136	438	693	635	418	420	13	30	0	2783	2425
Reno	9	7	267	470	848	1024	1178	858	780	440	409	118	6408	6036
Tonopah	0	1	153	447	843	1051	1177	884	875	328	347	71	6177	5813
Winnemucca	3	0	297	512	915	1072	1351	966	890	441	374	113	6934	6369
NEW HAMPSHIRE														
Concord	21	25	86	389	756	1172	1369	1316	954	585	341	33	7047	7612
Mt. Washington Obs. (R)	503	502	466	924	1261	1657	1942	1669	1622	1263	847	579	13241	

Data from airport unless otherwise specified.
U indicates Urban, R indicates Rural, sites.
* Moved to Audubon Park.

MONTHLY AND SEASONAL HEATING DEGREE DAYS

(Base 65°F)

1961 - 1962

State and Station	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	Total for Season	Normals July-June
NEW JERSEY														
Atlantic City	0	0	29	226	525	920	977	860	743	392	134	12	4818	
Atlantic City (U)	0	0	10	155	435	762	919	847	768	432	202	38	4568	4741
Newark	0	0	21	200	526	960	1052	963	705	393	120	7	4947	5252
Trenton (U)	0	0	34	226	532	957	1031	950	722	386	134	10	4982	5068
NEW MEXICO														
Albuquerque	0	0	43	248	731	951	1030	629	730	214	78	2	4656	4389
Clayton	2	0	172	338	831	1013	1104	700	766	369	74	32	5401	5138
Raton	9	3	221	474	869	1180	1215	789	949	464	201	82	6456	6417
Roswell	0	0	21	194	730	768	964	447	537	160	19	0	3840	3424
Silver City	0	0	17	203	639	741	896	516	660	197	98	2	3969	
NEW YORK														
Albany	11	18	79	335	761	1152	1327	1240	933	552	211	27	6646	6962
Binghamton	38	37	117	362	825	1228	1392	1288	1049	639	246	73	7294	7537
Buffalo	30	17	76	323	722	1089	1310	1216	1002	609	195	66	6655	6838
New York (U)	0	0	20	168	490	907	997	921	675	370	123	12	4683	5050
New York (LaGuardia)	0	0	22	181	501	910	1006	952	735	412	129	7	4855	4989
Rochester	28	21	82	301	728	1092	1296	1215	969	589	181	52	6554	6863
Schenectady	9	15	77	351	744	1115	1299	1202	920	547	198	17	6494	7050
Syracuse	14	13	70	292	724	1107	1262	1211	937	552	172	25	6379	6520
NORTH CAROLINA														
Asheville (U)	2	0	49	295	433	778	851	531	664	371	27	1	4002	4072
Cape Hatteras (R)	0	0	0	124	281	477	579	478	563	208	34	0	2744	2392
Charlotte	0	0	8	133	323	685	787	509	512	230	5	0	3192	3205
Greensboro	0	2	23	215	413	783	898	625	630	310	15	0	3914	3810
Raleigh	0	0	19	197	403	730	810	584	598	261	11	0	3613	3369
Wilmington	0	0	0	119	303	499	609	387	449	176	4	3	2549	2323
Winston-Salem	0	2	27	177	392	755	876	623	587	290	12	0	3741	3721
NORTH DAKOTA														
Bismarck	11	3	385	524	1017	1701	1681	1529	1289	606	304	59	9109	9033
Devils Lake (U)	18	9	378	601	1128	1869	1920	1737	1416	774	425	88	10363	9940
Fargo	2	9	301	527	1039	1681	1880	1660	1304	749	258	61	9471	9274
Grand Forks CAA	13	[illegible]	289	546	1060	1776	1925	1700	1391	800	311	77	9894	
Pembina	24	8	306	560	1102	1911	2049	1823	1445	936		66		
Williston (U)	8	7	397	563	1046	1732	1681	1572	1358	587	399	65	9415	9068
OHIO														
Akron	14	3	74	311	701	1109	1265	1067	928	518	104	24	6118	6203
Cincinnati (U)	0	0	22	190	559	914	1056	790	692	337	24	2	4586	[illegible]
Cincinnati	0	0	22	190	622	909	1132	838	747	402	28	2	4892	5195
Cincinnati Obs.	0	0	40	225	612	973	1123	853	744	376	33	5	4984	4870
Cleveland	19	3	74	258	668	1085	1264	1085	958	547	124	43	6128	6006
Columbus	2	2	60	297	689	1087	1249	1005	866	496	76	2	5831	5615
Columbus (U)	0	0	43	237	633	1037	1183	954	803	431	59	6	5386	5277
Dayton	0	2	58	282	686	1088	1227	1000	865	460	70	21	5759	5597
Mansfield	15	4	83	309	725	1149	1284	1092	952	526	111	29	6279	
Sandusky (U)	1	0	48	242	647	1061	1247	1054	914	468	108	18	5808	5859
Toledo	27	12	87	344	775	1188	1323	1120	924	510	125	17	6452	6394
Youngstown	18	7	89	330	731	1150	1319	1109	952	559	140	36	6440	6172
OKLAHOMA														
Oklahoma City	0	0	40	106	547	868	1006	560	524	230	5	0	3886	3644
Tulsa	0	0	37	129	563	918	1072	628	586	250	3	0	4186	3584
OREGON														
Astoria	105	110	254	428	632	697	765	590	667	493	451	299	5491	4995
Burns (U)	9	10	350	586	937	1195	1359	992	932	513	493	177	7553	6918
Eugene	35	12	195	391	695	708	845	629	625	379	396	156	5066	4779
Meacham	48	32	446	668	965	1168	1242	1008	1026	645	689	347	8284	7888
Medford	9	1	144	369	696	905	1032	671	625	337	325	88	5202	4547
Pendleton	0	0	167	458	855	863	1006	699	660	333	334	86	5461	5204
Portland (U)	8	3	112	316	585	684	775	577	573	335	341	107	4416	4143
Portland	11	4	169	359	656	740	811	613	605	364	339	118	4789	4632
Roseburg	21	4	169	376	673	692	857	603	576	338	340	123	4772	4556
Salem	26	9	199	382	706	737	857	673	647	419	414	171	5240	4574
Sexton Summit (R)	84	50	334	513	752	914	863	808	894	552	652	290	6706	6217
PENNSYLVANIA														
Allentown	0	1	56	293	620	1184	1193	1056	800	454	148	6	5811	5880
Erie	23	10	66	276	648	1051	1266	1125	977	578	168	59	6247	6558
Harrisburg	0	2	41	244	569	1042	1139	1025	791	415	120	2	5390	5258
Philadelphia (U)	0	0	14	163	463	871	953	883	645	317	95	10	4414	4523
Philadelphia	0	0	45	283	593	1049	1078	963	748	408	133	7	5307	4866
Pittsburgh (U)	6	0	45	226	587	949	1100	887	791	442	63	2	5098	5048
Pittsburgh	17	2	71	302	666	1039	1197	1020	873	513	100	18	5818	5905
Reading (U)	0	0	32	209	540	958	1072	950	717	391	115	4	4988	5060
Scranton	3	7	80	370	743	1092	1236	1125	874	511	155	16	6209	6047
Williamsport	0	5	73	308	666	1069	1198	1063	846	479	137	8	5852	5898
RHODE ISLAND														
Block Island	7	4	39	257	577	932	1052	1015	881	591	313	65	5733	5843
Providence	0	6	49	284	633	1013	1123	1068	840	489	274	40	5819	6125
SOUTH CAROLINA														
Charleston (U)	0	0	1	44	187	363	505	246	347	117	0	0	1810	1769
Charleston	0	0	3	92	251	443	553	263	363	160	0	0	2128	1973
Columbia	0	0	7	123	272	550	620	360	430	183	0	0	2545	2435
Florence	0	0	7	112	285	529	629	396	421	165	1	0	2545	2507
Greenville	0	0	9	116	297	659	729	440	486	220	4	0	2960	3060
Spartanburg	0	0	18	138	310	679	751	480	497	228	5	0	3106	3044
SOUTH DAKOTA														
Huron	0	2	276	452	971	1592	1675	1480	1367	601	175	60	8651	7902
Pierre	0	2	269	412	913	1447	1546	1327	1295	502	150	58	7921	
Rapid City	2	0	327	469	898	1295	1414	1139	1121	483	213	60	7421	7535
Sioux Falls	0	5	236	422	943	1512	1616	1333	1245	593	117	42	8064	7848
TENNESSEE														
Bristol	2	0	27	263	446	795	906	572	622	383	18	0	4034	4148
Chattanooga	0	0	9	178	372	703	813	430	523	268	5	0	3301	3384
Knoxville	0	0	15	222	405	771	862	492	556	324	5	0	3652	3590
Memphis (U)	0	0	10	118	443	676	866	442	530	216	0	0	3301	3006
Memphis	0	0	8	148	467	690	887	410	543	229	5	0	3387	3137
Nashville	0	0	23	186	471	734	916	523	605	303	5	0	3766	3513
Oak Ridge	0	0	22	237	435	755	891	536	583	339	19	0	3817	4028
TEXAS														
Abilene	0	0	20	71	449	618	777	310	379	115	8	0	2747	2657
Amarillo	0	0	63	189	702	879	1026	540	563	254	23	15	4254	4345
Austin	0	0	0	21	270	404	598	161	243	48	0	0	1745	1713
Brownsville	0	0	0	1	37	138	292	23	79	7	0	0	577	617
Corpus Christi	0	0	0	4	123	220	448	51	142	10	0	0	998	1011
Dallas	0	0	1	49	382	573	748	293	338	109	2	0	2495	2272
Del Rio (U)	0	0	1	9	246	347	559	96	163	21	0	0	1442	
El Paso	0	0	0	82	513	575	754	318	433	36	3	0	2714	2641

Data from airport unless otherwise specified.
U indicates Urban, R indicates Rural, sites.

MONTHLY AND SEASONAL HEATING DEGREE DAYS

(Base 65°F)

1961 - 1962

State and Station	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	Total for Season	Normals July-June
TEXAS (Cont'd.)														
Ft. Worth	0	0	0	50	381	590	781	328	345	107	2	0	2584	2361
Galveston (U)	0	0	0	7	148	231	461	98	166	24	0	0	1135	1211
Galveston	0	0	0	4	142	233	489	107	171	22	0	0	1168	1233
Houston (U)	0	0	0	6	132	219	417	71	137	11	0	0	993	1276
Houston	0	0	0	16	184	287	480	99	209	32	0	0	1307	1388
Laredo	0	0	0	0	131	224	422	41	102	2	0	0	922	781
Lubbock	0	0	24	150	602	790	942	457	535	176	13	3	3692	3587
Midland	0	0	12	66	481	625	796	309	394	96	7	0	2786	2565
Port Arthur	0	0	0	33	198	306	543	110	230	42	0	0	1462	1517
San Angelo	0	0	8	66	437	575	719	265	331	83	6	0	2490	2107
San Antonio	0	0	0	19	223	351	586	108	206	27	0	0	1520	1579
Victoria	0	0	0	15	168	287	501	90	178	20	0	0	1259	1126
Waco	0	0	0	37	326	489	674	234	282	67	1	0	2110	2025
Wichita Falls	0	0	4	62	499	723	875	408	427	139	3	0	3140	3025
UTAH														
Milford	0	0	223	519	945	1126	1407	924	941	425	310	97	6917	6445
Salt Lake City	0	0	207	461	881	1132	1373	936	921	369	220	75	6575	5866
Wendover	0	0	160	436	906	1093	1265	923	835	306	211	66	6201	
VERMONT														
Burlington	34	47	104	468	849	1266	1529	1433	1109	690	324	73	7926	7865
VIRGINIA														
Lynchburg	0	2	37	208	476	846	945	723	684	342	50	0	4313	4153
Norfolk	0	0	7	155	368	722	800	668	655	288	50	0	3713	3454
Richmond	0	0	27	218	459	860	875	702	623	276	32	0	4072	3955
Roanoke	0	0	36	211	485	856	904	678	658	354	32	1	4215	4152
WASHINGTON														
Olympia	62	19	266	508	771	816	878	674	748	476	469	212	5899	5501
Seattle (U)	16	2	134	365	594	698	722	545	603	350	327	122	4478	4438
Seattle	8	3	167	401	644	726	781	576	643	364	336	124	4773	4785
Seattle-Tacoma	23	8	197	437	689	789	821	610	668	443	438	167	5290	5275
Spokane	1	0	268	604	1025	1180	1309	905	932	450	430	149	7253	6852
Stampede Pass (R)	225	153	546	785	1117	1240	1182	1010	1095	809	834	477	9473	9149
Tatoosh Island (R)	235	251	348	479	603	701	712	582	683	533	482	382	5991	5724
Walla Walla	0	0	134	419	871	895	1004	749	660	319	317	76	5444	
Walla Walla (U)	0	0	119	385	826	852	963	715	683	284	284	64	5175	4848
Yakima	6	3	202	524	931	1032	1081	818	768	388	344	117	6214	5845
WEST VIRGINIA														
Charleston	3	0	57	275	559	853	965	687	656	424	37	0	4516	4417
Huntington (U)	0	0	35	213	535	828	972	715	709	409	36	10	4462	4073
Parkersburg (U)	0	0	50	234	569	921	1068	808	718	404	32	3	4807	4750
WISCONSIN														
Green Bay	14	29	183	455	900	1484	1657	1426	1161	646	221	94	8270	8259
La Crosse	1	0	188	375	891	1440	1613	1345	1105	598	158	38	7752	7650
Madison	11	18	188	444	876	1426	1630	1337	1093	601	185	54	7863	7417
Milwaukee	18	9	134	422	815	1303	1561	1224	1067	623	254	119	7549	7205
WYOMING														
Casper	24	0	409	622	1033	1341	1537	1071	1072	544	324	139	8116	7638
Cheyenne	17	8	405	622	977	1285	1419	1056	1106	576	303	167	7941	7562
Lander	13	0	426	691	1250	1457	1746	1127	1038	531	337	149	8765	8303
Sheridan	9	5	434	651	111	1361	1515	1146	1127	521	339	138	7357	7903

Data from airport unless otherwise specified. U indicates Urban, R indicates Rural, sites.

Note: "Heating Degree Days" has been discontinued in the June issues of this publication. Data which would usually be shown in that table for June are shown in the last three columns of the above Table.

STORM SUMMARY

JUNE 1962

STATE	TORNADOES					HAILSTORMS				WINDSTORMS				LIGHTNING				‡ HEAVY SNOWSTORMS AND BLIZZARDS				# ICE STORMS				∅ ALL OTHER			
								†DAMAGE				†DAMAGE				†DAMAGE				†DAMAGE				†DAMAGE				†DAMAGE	
	NUMBER	DAYS	DEATHS	INJURIES	†DAMAGE	DEATHS	INJURIES	PROPERTY	CROPS	DEATHS	INJURIES	PROPERTY	CROPS	DEATHS	INJURIES	PROPERTY	CROPS	DEATHS	INJURIES	PROPERTY	CROPS	DEATHS	INJURIES	PROPERTY	CROPS	DEATHS	INJURIES	PROPERTY	CROPS
Alabama														0	0	4	0												
Alaska																										1	0	4	0
Arizona						0	2	3	0																				
Arkansas	1	1	0	0	0	0	0	3	2	0	0	3	0	0	1	0	0												
California *																													
Colorado	12	6	0	0	4	0	0	5	6	0	0	3	5	1	2	3	0									1	1	1	4
Connecticut	1	1	0	0	P3 C4	0	0	0	5	0	0	3	3	2	0	4	0												
Delaware	1	1	0	0	4																								
Florida	1	1	0	0	4	0	0	0	D					2	3	4	0												
Georgia	1	1	0	0	5	0	0	3	5	0	0	4	4	0	0	4	0									0	0	4	4
Hawaii *																													
Idaho								3	5	0	2			0	1	0	0												
Illinois	2	2	0	2	6	0	0	2	4																				
Indiana	1	1	0	0	5									1	0	0	0												
Iowa	1	1	0	0	4	0	0	5	5	0	43	6	5	2	3	4	0												
Kansas	13	9		3	4			5	6			4				5													
Kentucky														1	1	2	0												
Louisiana	2	2	0	0	?	0	0	?	?	0	0	2	0																
Maine														0	0	5	0												
Maryland	2	2	0	0	4									0	1	4	0												
Massachusetts						0	0	0	3	0	1	4	0	0	0	5	0									0	0	3	0
Michigan						0	0	3	4	0	0	5	4	0	2	5	0												
Minnesota	1	1	0	0	4	0	0	6	6	0	1	5	4	0	4	0	0									0	0	4	0
Mississippi						0	0	?	?	0	0	3	0																
Missouri	8	8	0	0	4	0	0	4	5	0	1	4	5	0	1	4	0												
Montana						0	0	5	6	0	0	4	4	0	1	0	0												
Nebraska	9	5	0	13	5	0	0	6	6	0	0	5	5	1	0	0	0									0	0	5	5
Nevada *																													
New Hampshire														1	1	4	0												
New Jersey						0	0	5	C	0	0	4	C																
New Mexico	2	2	0	0	3	0	0	3	5	0	0	2	0																
New York												4		1		5										2		5	
North Carolina	2	1	0	0	4	0	0	3	6	0	0	5	5	4	7	5	0									0	0	5	7
North Dakota	1	1	0	0	0	0	0	0	5																				
Ohio *																													
Oklahoma	21	7	0	1	4	0	0	3	4	0	0	5	3	1	3	4	0									2	0	5	0
Oregon	1	1	0	0	0																								
Pennsylvania	1	1	0	0	3									1	0	5	0												
Puerto Rico																										0	0	4	
Rhode Island *																													
South Carolina *																													
South Dakota	U10	6	0	?	?	0	?	?	?	0	?	?	?	1	1	?	?												
Tennessee						0	0	0	4	0	0	4	0	1	3	4	0												
Texas	56	17	0	5	P5	0	0	7	7	0	5	6	5	0	2	0	0									0	0	5	6
Utah *																													
Vermont						0	0	0	3	0	0	4	0	0	0	4	0									0	0	3	0
U.S. Virgin Is. *																													
Virginia	2	2	0	0	4					0	0	4	?	0	0	4	0												
Washington *																													
West Virginia *																													
Wisconsin	4	2	0	0	3	0	0	4	6	0	6	5	5																
Wyoming	11	5	0	4	5	0	0	°6	C					0	1	0	0												

* No occurrence of storms or unusual weather phenomena.
‡ Includes heavy sleet storm.
# Freezing drizzle and freezing rain, commonly known as glaze.
∅ For breakdown of "All Others", and for detailed listing of other storms, see the U. S. Weather Bureau monthly publication STORM DATA.
C Crop Damage
° Includes Crop Damage
P Property Damage
D Damage occurred, no estimates available.
U 1 Unconfirmed

† Storm damages are placed in categories varying from 1 to 9 as follows:

1	Less than $50
2	$50 to $500
3	$500 to $5,000
4	$5,000 to $50,000
5	$50,000 to $500,000
6	$500,000 to $5,000,000
7	$5,000,000 to $50,000,000
8	$50,000,000 to $500,000,000
9	$500,000,000 to $5,000,000,000

GENERAL SUMMARY OF RIVER AND FLOOD CONDITIONS

JUNE 1962

Near record stages for recent times occurred on the North Fork of the Smoky Hill River in northwest Kansas during June. Heavy tributary flooding was also reported in this area on Beaver and Sappa Creeks. Severe flash floods were reported in Oklahoma. Flooding reported elsewhere in the 48 contiguous states was mostly light with some moderate flooding.

Serious flooding occurred in some areas of Alaska during June. Most of the flooding resulted from runoff along the main stem of the Yukon. About June 1, the Black River overflowed in the vicinity of Chalkyitsik, necessitating the evacuation of most of the residents, some of whom were flown out of the area because of unavailable housing on higher ground. Water 2 to 3 feet deep flowed across the floor of the village school, and most of the native houses were quite badly damaged. Runoff from the Black River, combined with that from other tributaries of the Porcupine River, caused a sharp rise in the Yukon River at Fort Yukon. By June 2, the flood waters at Fort Yukon climbed to a new high for the season. The overflow reached depths of 5 feet in some sections of the Village and spread over the airport runway. Considerable damage resulted to native housing, runway, and other facilities. At Beaver, downstream from Fort Yukon, some flooding occurred as the crest moved downstream from Fort Yukon. A more serious situation developed at this point when the flow from the Chandalar River brought a rapid rise about the 11-12th. Downstream at Stevens Village, major flooding occurred as a result of the crest which passed Fort Yukon around June 1. This crest reached Stevens Village on the night of the 5-6th, and most of the residents were evacuated by helicopter to Fairbanks on the 7th. Flooding in Yukon tributaries continued until late June. Heavy runoff from the upper Nenana Basin caused rather serious flood conditions. A railroad bridge was washed out on the spur line running from Healy to the Suntrana Coal Mines, which remained out of service until June 18. Restoration of railroad facilities in the Nenana and Tanana Valleys was hampered considerably by the occurrence of a number of slides affecting track facilities from the 15th to the 25th. Damages to railroad property have been estimated at around $60,000.

HUDSON BAY DRAINAGE

Low-lying sections of cities along the Red River of the North were flooded for the third time in 3 months. The main stem of the Red River of the North after receding below flood stage at Grand Forks, N. Dak., on the 7th began rising again in the headwaters at Wahpeton, N. Dak., to above flood stage on the 8th. Flooding occurred in the reach at Moorhead, Minn., and Fargo, N. Dak., on the 9th and at Grand Forks, N. Dak., on the 12th. Flood stage was reached at Drayton, N. Dak., on the 16th. The crests during this rise ranged up to 1 1/2 feet higher than the previous rise. The crests ranged from 4 feet above flood stage at Wahpeton, N. Dak., to 11.4 feet above flood stage at Moorhead.

ATLANTIC SLOPE DRAINAGE

Thunderstorms during the late afternoon of the 23d produced excessive amounts of rainfall in the southwestern portion of New Jersey within an area 5 to 10 miles wide and 30 miles long extending from a few miles north of Camden southwestward along the Delaware River. There was unusual flooding of roads and in urban areas, streets and cellars. Unofficial estimates of rainfall amounts were as much as 3 inches in 1 hour. Rainfall in excess of 2 inches occurred the following afternoon (24th) in roughly the same area plus an additional narrow band across Central New Jersey from just north of Trenton to Long Island, New York.

The light flooding on the Roanoke River in Virginia between the 14th and 16th was due to heavy rain on the 12-14th. Two to 6 inches of rain fell over the Roanoke and Dan River Basins during this storm. Stages along the lower Roanoke Basin were controlled by Kerr Dam holding stages well below bankfull, except slightly above bankfull at Williamston, N. C., during the last 10 days of June. Sharp rises occurred on all streams in eastern North Carolina, but no flooding occurred. Considerable crop damage occurred due to direct effect of heavy rains in the area around Pamlico Sound and its estuaries.

The Saluda River reached bankfull stage at Pelzer, S. C., on the 3d. Light flooding occurred on the Broad River at Gaffney on the 13th and at Blair, S. C., on the 14th. There was considerable damage to roads and bridges on secondary roads.

Minor flooding occurred on the North Fork of the Edisto at Orangeburg, S. C., between the 4th and 7th. No damage occurred and only minor inconvenience resulted at the Park and boat landing at Orangeburg. The middle and lower Yadkin, the Rocky, and Pee Dee Rivers approached flood stage during the middle of the month.

MISSISSIPPI SYSTEM

Upper Mississippi Basin.--The Minnesota River was in flood in the reach from Carver to Mendota, Minn., in the beginning of the month. It receded within its banks at Carver and Mendota on the 2d and at Savage, Minn., on the 6th. This rise was due to general rainfall of 2 to 4 inches on May 22-23 over the Upper Mississippi Basin.

Minor flooding occurred on the Iowa River at Wapello, Iowa, from May 31 to June 1.

Heavy rains occurred over the upper reaches of the Raccoon River in Iowa on the night of the 7th. These were followed by heavy rains over south-central Iowa, which extended into the weekend of the 9th and 10th. Minor flooding of agricultural land occurred along the Raccoon, North, Middle, and South and along the lower Des Moines. No property damage was reported.

Minor flooding occurred on the Illinois River at Meredosia, Ill., on the 9th to the 11th and on the Sangamon River at Monticello, Mo., on the 12th and 13th. This rise was due to heavy general rains from the 7th to the 10th. No damage resulted from the flooding.

Missouri Basin.--There was some minor flash flooding early in June on the Powder River at Broadus, Mont.

A heavy rain on the 12th caused Bullhook Creek to overflow at Havre, Mont. Considerable inconvenience and some damage resulted from the flooding. Heavy rains in northeastern Fergus County on the 15-16th caused heavy flooding on Box Elder Creek in Montana.

Heavy rains during the first part of June caused minor flooding on the Floyd River at Alton, Iowa, on the 5th. Scattered heavy thunderstorms along the Big Sioux and the Rock River from the 15th to the 17th caused 1- to 1 1/2-

foot overflow along the Big Sioux from the mouth of Rock River to about 15 miles above Sioux City, Iowa. Since many farm levees were washed out in the earlier March-April flood, and had not yet been repaired, this shallow flooding caused considerable crop damage on fields that were already saturated from rains. Local overflows occurred along the James River between Jamestown, N. Dak., and Ashton, S. Dak., during June with the passing of scattered large thunderstorms. The overflow was not general and was confined mostly to pastureland. Stages at Huron and Ashton, S. Dak., remained slightly below bankfull throughout the month. Due to frequent heavy rains on tributaries to the James, below Huron, and due to the James being a very flat and sluggish stream, there was considerable overflow from Mitchell, S. Dak., downstream during much of June. Some overflow occurred in May.

Heavy rains, averaging 2 1/2 to 3 inches, fell during the last 10 days of May over the eastern Sand Hills area of Nebraska and caused the Elkhorn River to rise to 1 foot above bankfull in the O'Neill-Ewing-Clearwater area by June 1. Additional rains, averaging 2 1/2 inches from Neligh, Nebr., westward to the upper reaches of the Elkhorn, caused widespread flooding of pastures and hayland between Ainsworth and Bassett southeastward to Neligh. The Elkhorn reached 2 feet above bankfull stage at Clearwater, Nebr., on the 9th. Floodwaters in the western Elkhorn Basin began to recede on the 10th and streams were generally within banks by the 14th. No appreciable flooding was noted below Neligh. Heavy runoff occurred on the North Branch of the Elkhorn from rainfall averaging 2 1/2 inches on the 6-7th. At Pierce, Nebr., the river crested nearly 2 feet above flood stage on the 10th and at Hadar, Nebr., 3 feet above bankfull stage on the 9th. A second rise occurred on the 18-19th, following general rains of 1.50 to 1.75 inches. The crests during this rise ranged from 1 to 2 feet lower than the first rise.

There were several periods of locally heavy rains associated with thunderstorms in parts of the Loup River and the central portion of the Platte River Basin in Nebraska and over the upper reaches of the Little Sioux River in northwestern Iowa. In general, the streams stayed below bankfull, but some local highwater occurred along the Platte River at Lexington and Gothenburg. Some local flooding occurred on the North and Middle Loup Rivers above St. Paul, Columbus, and at Ord, Nebr. Very little damage occurred due to the high water.

The Nishnabotna River at Hamburg, Iowa, continued in flood from May 29 to June 1 from the heavy rains during the night of May 28-29. Another rise occurred on the Nishnabotna from the heavy showers that accompanied the thunderstorms during the night of June 10-11. Only minor flooding resulted.

Heavy tributary flooding occurred in northwestern Kansas on Beaver and Sappa Creeks and the North Fork of the Smoky Hill River on the 8th. Flows were reported up to a quarter of a mile wide on the South Fork of Beaver Creek north of Edison and also on the South Fork of Sappa Creek 10 miles east of Brewster. Near record stages for recent times occurred on the North Fork of the Smoky Hill River at McAllaster. Light to moderate overflows of the principal river channels occurred on the Solomon River from Beloit to Glasco, Kans., and on the Republican River from Cambridge to Orleans, Nebr. The heavier tributary flooding in northwestern Kansas developed from rains of 4 to 6 inches on the 7-8th. Monthly totals in the area were the second greatest of record, averaging 7.07 inches. Heavy local damages occurred in northwestern Kansas. Losses elsewhere were relatively light.

Minor flooding occurred on the Thompson Fork and on the Grand River in Missouri from thunderstorms that produced rainfall amounts of locally over 3 inches in northern Missouri during the night of the 10-11th.

Local flooding occurred on the main stem of the Missouri at St. Joseph, Mo., on the 10th and 11th and at Waverly, Mo., on the 11th. There was little damage as farm levees were generally not overtopped. There was also some local flooding at Hermann, Mo., on the 1st.

Ohio Basin.--Minor flooding occurred on the Little Wabash near Wilcox, Ill., on the 12th and 13th and moderate overflow on the 20-24th. The latter rise was due to locally heavy rain during the night of the 18-19th. No losses were reported.

Arkansas Basin.--The flooding in the Arkansas Basin was due to heavy rainfall on the 1st and 2d which followed closely the late May rains. The Little Arkansas, the Cottonwood, and the upper Neosho that received the most precipitation during the last 7 days of May again received heavy amounts. Major flooding resulted on the Little Arkansas at Sedgwick, Kans., for the second consecutive month. The flooding lasted from the 2d to the 6th, with a crest 6.4 feet above flood stage on the 2d. This was about 0.7 foot higher than the crest in May. The immediate Wichita area was again saved from flooding by the extensive diversion ditch system around the city. Only minor flooding occurred on the Cottonwood, Neosho, Deep Fork, and the main stem of the Arkansas. No significant damage occurred, except along the lower reaches of the Little Arkansas River.

Flash floods were reported at Sapula, Guthrie, and near Kingfisher, Oklahoma, during June. Heyburn Reservoir reported 5.74 inches of rain on the morning of the 7th, with reports of 7.5 to 8.0 inches between the reservoir and Sapula. This flash rise washed a country home into the Euchee Creek and drowned 2 persons. Portions of the Sapula Municipal Golf Course were flooded, with an unofficial report that it was the highest since completion of Heyburn Dam. Heavy rains in the vicinity of Kingfisher, Okla., on the 8th caused Uncle John's Creek to crest 0.2 foot above flood stage. Kingfisher Creek crested below flood stage. These streams were the highest since September 1961. Torrential rains on the 9th caused streams around Guthrie, Okla., to rise rapidly. Cottonwood Creek showed 4 feet of flooding, driving nearly 200 families to higher ground. This was the highest Cottonwood Creek had been since October 1959. There was some damage to unharvested wheat fields in the areas near Guthrie and Kingfisher.

Red River Basin.--Heavy rains from June 1 through June 10 over the Beaver Creek watershed of the Red River produced major flooding in Waurika, Okla., on the 10th. About 100 blocks and 250 homes were flooded at Waurika as the creek rose to slightly over 6 feet above flood stage. Approximately 400 people were evacuated. Heavy damage occurred to buildings, roads, and agriculture. Minor local flooding occurred on the Washita River below Clinton to Carnegie on the 11th from heavy rains on the 9th. Minor damage occurred to crops in bottom lands.

WEST GULF OF MEXICO DRAINAGE

Minor flooding occurred on Aquilla Creek near Waco, Tex., on the 9th from heavy rains ranging from 2 to 5 inches in the upper and middle Brazos Basin from the 8th to the 10th.

PACIFIC SLOPE DRAINAGE

Columbia Basin.--Minor flooding occurred on the Columbia River at Vancouver, Wash., from May 31 to June 7. The crest of 16.8 feet on the 6th was the third lowest peak of the past 20 years.

FLOOD STAGE DATA

(All dates in June unless otherwise specified)

JUNE 1962

River and station	Flood stage	Above flood stages -dates		Crest*	
		From–	To–	Stage	Date
	Ft.			Ft.	
HUDSON BAY DRAINAGE					
Red River of the North Basin					
Red Lake River: Crookston, Minn.	15	9	16	21.9	11
Red River of the North: Wahpeton, N. Dak.	10	8	14	14.0	11
Moorhead, Minn	17	May 20 8	4 25	27.5 28.4	May 29 14
Grand Forks, N. Dak.	28	May 25 11	7 26	33.9 35.5	May 29 16
Drayton, N. Dak.	32	3 16	7 27	32.5 33.8	5-6 23
ATLANTIC SLOPE DRAINAGE					
Roanoke: Altavista, Va.	18	14	14	18.7	14
Randolph, Va.	21	14	16	21.45	15
Saluda: Pelzer, S. C.	6	3	3	6.0	3
Broad: Gaffney, S. C.	10	13	13	11.3	13
Blair, S. C.	14	14	14	16.7	14
North Fork Edisto: Orangeburg, S. C.	8	4	7	E9.0	6
MISSISSIPPI SYSTEM					
Upper Mississippi Basin					
Minnesota: Carver, Minn.	18	May 25	2	19.6	May 28
Savage, Minn.	698	May 24	6	702.05	May 30
Mendota, Minn.	699	May 27	2	700.2	May 30
Iowa: Wapello, Iowa	10	May 31	1	11.4	May 31
North Raccoon: Jefferson, Iowa	10	9	11	11.9	10
North: Norwalk, Iowa	14	10	11	20.3	11
Middle: Indianola (NR), Iowa	15	10	10	15.1	10
South: Ackworth, Iowa	15	10	11	24.3	10
Des Moines: Tracy, Iowa	14	11	13	19.7	12
Eddyville, Iowa	15	11	13	21.2	12
Ottumwa, Iowa	9	11	13	13.3	13
Sangamon: Monticello, Ill.	11	12	13	11.2	13
Illinois: Meredosia, Ill.	428	9	11	428.4	10
Missouri Basin					
Big Sioux: Hawarden, Iowa	15	18	19	16.1	18
Akron, Iowa	16	17	21	17.5	19
Floyd: Alton, Iowa	12	5	5	13.0	5
North Branch Elkhorn: Pierce, Nebr.	12	7 18	10 19	14.0 13.0	8 18
Hadar, Nebr.	12	8 18	10 19	15.0 12.7	9 19
Nishnabotna: Hamburg, Iowa	18	May 29 10	1 11	#24.3 19.2	May 29 11
South Fork Solomon: Hill City, Kans.	8	8	8	8.6	8
Osborne, Kans.	12	2 24	3	14.5 15.25	3 24
Solomon: Beloit, Kans.	20	3	5	24.45	4
Glasco, Kans.	22	3	6	24.85	5
MISSISSIPPI SYSTEM (Cont'd.)					
Missouri Basin (Cont'd.)					
Lyons Creek: Woodbine, Kans.	17	1	1	17.2	1
North Fork Smoky Hill: McAllaster, Kans.	10			Ø11.75	8
Republican: Cambridge, Nebr.	9	8	8	9.1	8
Orleans, Nebr.	9	9	10	#11.2	10
Fancy Creek: Winkler, Kans.	11	7	7	11.0	7
Black Vermillion: Frankfort, Kans.	19	4 24	4 24	24.0 19.4	4 24
Vermillion Creek: Wamego, Kans.	24	24	24	24.25	24
Thompson Fork: Trenton, Mo.	20	11	11	20.7	11
Grand: Chillicothe, Mo.	24	11	12	27.5	12
Sumner, Mo.	26	May 29 11	2 14	31.3 30.3	May 31 13
Brunswick, Mo.	12	May 30 12	2 13	E16.0 13.05	May 31 12
Missouri: Hermann, Mo.	21	1	1	21.6	1
St. Joseph, Mo.	17	10	11	17.6	10
Waverly, Mo.	18	11	11	18.2	11
Ohio Basin					
Little Wabash: Wilcox (NR), Ill.	16	12 20	13 24		
Arkansas Basin					
Little Arkansas: Sedgwick, Kans.	18	May 29 2	May 31 6	23.75 24.4	May 30 2
Ripley, Kans.	12	1	2	15.3	2
Cottonwood: Emporia, Kans.	20	4	7	22.4	[illegible]
Neosho: Burlington, Kans.	27	May 31	1	30.0	1
Leroy, Kans.	23	1	1	23.45	1
Commerce, Okla.	15	5	5	#15.35	5
Deep Fork: Dewar, Okla.	18	10	20	19.6	10
Arkansas: Arkansas City, Kans.	16	2	4	17.4	3
Red River Basin					
Beaver Creek: Waurika (NR), Okla.	870	10	14	876.2	10
Washita: Carnegie, Okla.	18	11	11	19.4	11
PACIFIC SLOPE DRAINAGE					
Columbia Basin					
Columbia: Vancouver, Wash.	16	May 31	7	16.8	6

* Provisional
# Highest Stage Observed
Ø High Water Mark
E Estimated

RAWINSONDE DATA

Average monthly values

ALBANY, N. Y.
1006 MB

Standard pressure surface (mb)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind Direction	Wind Speed
SURFACE	30	86	15.9	80	225	1.4
1000	30	140	15.4	77	225	1.4
950	30	572	14.9	68	307	5.1
900	30	1,033	13.0	66	302	10.3
850	30	1,511	10.4	65	304	13.6
800	30	2,014	7.9	60	304	14.2
750	30	2,538	5.4	52	296	15.0
700	30	3,107	2.7	44	290	17.7
650	30	3,696	- .4	36	286	21.0
600	30	4,340	- 3.9		283	23.3
550	30	5,008	- 8.2	34	284	26.6
500	30	5,756	-12.8		282	29.5
450	30	6,542	-18.2		280	31.3
400	30	7,421	-24.4	34	276	33.2
350	30	8,381	-31.3		275	37.1
300	30	9,456	-39.4		273	43.1
250	30	10,680	-48.8		273	48.2
200	29	12,121	-58.6		273	51.7
175	29	12,953	-61.9		275	44.7
150	29	13,911	-60.0		274	37.3
125	28	15,052	-59.9		273	30.1
100	28	16,445	-59.9		279	20.2
80	28	17,845	-58.2		289	10.9
70	28	18,685	-57.6		300	4.7
60	28	19,664	-56.0		82	.8
50	28	20,829	-54.1		59	2.9
40	28	22,268	-52.1		84	7.0
30	28	24,142	-49.7		89	9.3
25	25	25,339	-47.9		87	10.3
20	21	26,824	-46.1		81	11.3
15	12	28,720	-42.7			

ALBUQUERQUE, N. MEX.
838 MB

Standard pressure surface (mb)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind Direction	Wind Speed
SURFACE	30	1,619	15.1	47	87	3.3
1000	30	88				
950	30	531				
900	30	1,002				
850	30	1,498				
800	30	2,016	16.6	34	168	2.5
750	30	2,555	13.2	35	225	4.9
700	30	3,139	9.2	36	264	7.6
650	30	3,741	4.7	36	262	9.1
600	30	4,394	- .4	38	249	11.1
550	30	5,071	- 6.2	45	240	13.0
500	30	5,822	-11.7	41	239	14.2
450	30	6,614	-17.4		245	17.5
400	30	7,494	-23.6		251	18.8
350	30	8,456	-30.6		253	20.4
300	30	9,533	-38.8		257	22.7
250	30	10,761	-47.9		262	29.9
200	30	12,205	-56.2		268	38.5
175	30	13,048	-58.9		267	38.7
150	30	14,010	-61.3		267	35.6
125	30	15,133	-64.2		262	27.0
100	30	16,494	-65.5		267	13.6
80	30	17,857	-64.3		157	2.3
70	30	18,678	-63.0		98	6.2
60	30	19,631	-60.5		92	9.9
50	30	20,776	-57.6		85	13.2
40	30	22,198	-54.2		86	14.4
30	28	24,053	-51.8		88	16.3
25	28	25,242	-49.6		81	14.8
20	28	26,712	-47.1		79	13.6
15	27	28,632	-43.7		81	15.7
	16	31,369	-38.9		78	10.9

AMARILLO, TEXAS
892 MB

Standard pressure surface (mb)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind Direction	Wind Speed
SURFACE	30	1,095	16.3	86	164	4.9
1000	30	102				
950	30	548				
900	30	1,019				
850	30	1,505	17.1	66	191	13.4
800	30	2,021	15.1	59	218	12.0
750	30	2,562	12.6	49	237	9.9
700	30	3,141	8.4	53	264	9.1
650	30	3,743	4.0	53	265	9.5
600	30	4,395	- .8	52	267	9.7
550	30	5,077	- 5.7	50	268	12.6
500	30	5,826	-10.6	45	275	12.2
450	30	6,623	-16.2	38	277	11.9
400	30	7,506	-22.2		275	15.3
350	30	8,473	-29.4		267	20.2
300	30	9,555	-37.7		259	24.5
250	30	10,788	-47.1		255	29.1
200	30	12,232	-56.7		255	30.9
175	29	13,075	-59.7		261	36.5
150	29	14,035	-61.7		263	31.9
125	29	15,157	-64.4		263	24.5
100	28	16,513	-65.9		254	11.3
80	28	17,871	-65.0		188	1.0
70	28	18,697	-62.7		88	6.2
60	28	19,646	-59.9		85	9.7
50	28	20,792	-57.3		93	11.9
40	28	22,213	-54.3		91	10.9
30	26	24,068	-51.0		84	13.8
25	25	25,259	-48.6		87	12.2
20	19	26,724	-46.7		79	9.9
15	11	28,634	-43.9			

ANCHORAGE, ALASKA
1010 MB

Standard pressure surface (mb)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind Direction	Wind Speed
SURFACE	30	29	9.7	81	153	2.5
1000	30	108	9.9	80	167	3.7
950	30	531	8.6	71	167	4.5
900	30	979	6.3	70	160	2.9
850	30	1,446	3.5	72	146	1.7
800	30	1,936	.6	74	118	2.1
750	30	2,447	- 2.7	73	86	1.4
700	30	2,995	- 5.8	73	59	1.4
650	30	3,568	- 9.2	65	78	2.1
600	30	4,188	-13.0	63	40	1.6
550	30	4,843	-16.9	56	15	3.7
500	30	5,555	-21.5	51	1	4.7
450	30	6,316	-27.0	49	352	7.6
400	30	7,162	-32.9	47	349	9.9
350	30	8,090	-40.2		352	14.4
300	30	9,122	-46.9		347	18.5
250	30	10,317	-50.7		335	17.7
200	30	11,772	-49.8		334	12.6
175	30	12,647	-48.8		338	10.7
150	30	13,660	-48.8		337	8.7
125	30	14,855	-49.5		345	5.8
100	30	16,315	-49.8		359	2.1
80	30	17,777	-49.4		71	3.7
70	30	18,657	-49.1		81	4.9
60	30	19,665	-48.7		79	7.2
50	30	20,864	-48.3		88	8.4
40	30	22,336	-47.7		91	10.9
30	30	24,241	-46.3		93	14.8
25	29	25,455	-44.6		92	17.3
20	21	26,929	-42.0		98	19.2
15	10	28,827	-38.7			

ANNETTE, ALASKA
1013 MB

Standard pressure surface (mb)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind Direction	Wind Speed
SURFACE	30	37	9.4	85	158	1.6
1000	30	146	9.0	83	157	2.1
950	30	568	6.3	79	173	3.3
900	30	1,012	3.7	79	177	5.1
850	30	1,474	.9	81	184	5.6
800	30	1,959	- 1.7	79	201	6.0
750	30	2,467	- 4.5	73	214	5.8
700	30	3,012	- 7.4	63	233	5.6
650	30	3,581	-10.6	58	235	7.2
600	30	4,198	-14.3	56	240	7.8
550	30	4,851	-18.4	49	250	8.7
500	30	5,559	-23.0	44	248	9.1
450	30	6,318	-28.5	44	240	11.3
400	30	7,158	-34.9	43	248	12.6
350	30	[illegible],077	-41.4		257	9.7
300	30	9,109	-47.2		261	15.0
250	30	10,306	-50.3		265	15.3
200	30	11,762	-49.9		271	13.4
175	30	12,636	-49.2		261	10.9
150	30	13,646	-49.5		260	7.8
125	30	14,838	-50.2		247	6.0
100	30	16,293	-50.7		216	5.2
80	29	17,742	-50.9		172	3.7
70	29	18,611	-51.1		155	3.3
60	29	19,612	-51.2		125	4.9
50	28	20,800	-51.0		102	7.2
40	28	22,254	-50.1		99	8.9
30	28	24,140	-48.6		93	15.3
25	28	25,341	-47.5		95	15.7
20	28	26,821	-45.5		93	17.9
15	27	28,753	-42.1		89	22.5
	27	31,530	-36.6		85	28.0
	25	34,034	-32.5		89	35.8
	17	36,375	-28.2			

ATHENS, GA.
989 MB

Standard pressure surface (mb)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind Direction	Wind Speed
SURFACE	30	246	20.2	91	69	1.7
1000	30	148				
950	30	592	20.3	79	120	1.2
900	30	1,060	18.2	72	204	3.1
850	30	1,548	15.2	73	235	4.7
800	30	2,060	11.9	70	247	5.6
750	30	2,594	8.6	68	251	6.2
700	30	3,166	5.4	59	265	7.2
650	30	3,767	2.4	51	266	7.2
600	29	4,413	- 1.0	46	256	7.0
550	29	5,096	- 4.8	42	253	7.0
500	29	5,847	- 9.2	39	258	8.4
450	29	6,650	-14.4	35	262	9.9
400	29	7,537	-20.3		267	10.7
350	29	8,512	-27.4		273	13.0
300	29	9,603	-35.8		276	16.5
250	29	10,844	-45.6		282	19.6
200	28	12,293	-56.5		285	22.0
175	27	13,131	-61.4		285	19.6
150	26	14,082	-64.4		272	22.2
125	26	15,191	-66.4		283	18.1
100	26	16,539	-67.0		301	8.5
80	25	17,893	-65.6		11	5.4
70	24	18,711	-63.9		49	6.6
60	24	19,660	-60.8		69	10.5
50	23	20,803	-57.3		85	13.0
40	23	22,225	-54.0		93	18.1
30	20	24,086	-50.6		94	15.7
25	16	25,275	-48.8		91	13.2
20	14	26,752	-46.8		87	14.6
15	7	28,644	-43.8			
10	5	31,396	-39.2			

BARROW, ALASKA
1014 MB

Standard pressure surface (mb)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind Direction	Wind Speed
SURFACE	30	8	- .2	90	68	1.9
1000	30	119	1.9	86	107	2.5
950	30	534	2.3	74	170	1.4
900	30	971	1.5	61	259	2.5
850	30	1,430	- .1	56	259	5.2
800	30	1,915	- 2.2	55	247	6.8
750	30	2,420	- 4.7	52	251	8.2
700	30	2,966	- 7.6	52	256	10.5
650	30	3,532	-10.8	51	248	11.7
600	30	4,151	-14.4	46	249	12.2
550	30	4,801	-18.5	43	245	12.2
500	30	5,512	-23.0	44	254	12.6
450	30	6,284	-28.4	45	257	14.4
400	30	7,111	-34.7	44	256	16.7
350	30	8,032	-41.0		261	18.5
300	30	9,064	-47.8		266	21.6
250	30	10,255	-51.0		269	22.7
200	30	11,717	-47.4		273	15.9
175	30	12,603	-46.2		276	12.8
150	30	13,628	-46.2		275	9.5
125	29	14,844	-46.8		280	7.2
100	29	16,323	-46.4		268	3.7
80	29	17,807	-45.9		311	1.7
70	29	18,694	-45.6		25	.8
60	28	19,719	-45.2		68	3.7
50	27	20,941	-45.1		81	5.4
40	27	22,433	-44.8		76	7.2
30	24	24,362	-43.4		79	11.7
25	24	25,593	-41.9		78	14.4
20	24	27,110	-40.1		87	16.9
15	22	29,088	-37.4		84	14.6
10	21	31,910	-33.4		86	18.1
	19	34,434	-29.6		79	21.4
	15	36,832	-25.9			

BARTER IS., ALASKA
1012 MB

Standard pressure surface (mb)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind Direction	Wind Speed
SURFACE	30	15	.5	91	63	1.0
1000	30	113	1.8	85	60	.6
950	30	529	4.3	72	291	4.1
900	30	969	3.3	63	295	8.2
850	30	1,432	1.6	57	281	8.0
800	30	1,918	- 1.0	58	271	8.2
750	30	2,426	- 4.0	55	271	6.4
700	30	2,971	- 7.4	51	271	5.1
650	30	3,540	-10.8	48	278	5.6
600	30	4,156	-14.7	49	285	6.0
550	30	4,802	-19.0	46	285	7.4
500	30	5,512	-23.7	39	293	7.0
450	30	6,267	-29.3		297	7.8
400	30	7,104	-35.6	40	263	8.2
350	30	8,020	-42.4		305	6.6
300	30	9,045	-49.1		308	8.4
250	30	10,234	-50.3		306	9.1
200	30	11,699	-47.7		284	7.6
175	30	12,583	-46.[illegible]		274	7.4
150	30	13,604	-47.0		282	5.8
125	30	14,810	-47.4		281	3.7
100	30	16,285	-46.9		287	2.1
80	30	17,766	-46.4		63	1.2
70	30	18,651	-46.2		60	2.7
60	30	19,678	-45.9		88	3.5
50	29	20,895	-45.7		81	5.6
40	29	22,383	-45.4		83	8.5
30	29	24,307	-44.2		85	10.9
25	29	25,533	-43.0		90	14.8
20	28	27,045	-40.7		91	16.5
15	24	29,006	-37.4		92	18.5
10	14	31,844	-33.7		91	20.4
	11	34,336	-30.3		91	21.8
	10	36,738	-27.2			

BETHEL, ALASKA
1009 MB

Standard pressure surface (mb)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind Direction	Wind Speed
SURFACE	30	39	7.3	89	288	5.6
1000	30	114	8.8	80	307	6.4
950	30	535	6.9	71	287	3.5
900	30	980	4.7	67	236	3.9
850	30	1,445	2.8	61	244	4.7
800	30	1,934	.7	59	259	5.1
750	30	2,445	- 2.0	60	272	6.4
700	30	2,997	- 4.8	58	284	7.8
650	30	3,572	- 7.9	55	296	8.5
600	30	4,196	-11.5	51	297	8.5
550	30	4,854	-15.5	49	301	8.9
500	30	5,573	-20.0	46	299	9.3
450	30	6,341	-25.2	42	301	10.7
400	30	7,194	-31.1		308	15.9
350	30	8,127	-37.8		310	16.3
300	30	9,174	-44.7		302	13.8
250	30	10,379	-49.8		311	14.2
200	30	11,631	-51.8		318	14.2
175	29	12,694	-51.1		306	11.1
150	29	13,699	-50.5		300	9.3
125	29	14,886	-51.5		298	6.8
100	29	16,334	-51.6		357	2.5
80	28	17,785	-50.8		99	1.6
70	28	18,651	-50.4		76	3.3
60	28	19,663	-49.9		84	5.8
50	28	20,856	-49.5		86	8.4
40	26	22,312	-48.[illegible]		88	11.9
30	24	24,200	-47.6		86	12.0
25	22	25,409	-46.1		88	15.5
20	22	26,901	-43.7		88	18.8
15	14	28,857	-39.5		87	22.9

BISMARCK, N. DAK.
955 MB

Standard pressure surface (mb)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind Direction	Wind Speed
SURFACE	30	505	13.2	94	196	1.0
1000	30	116				
950	30	553	13.3	87	184	2.5
900	30	1,008	13.7	73	198	4.7
850	30	1,489	12.0	67	256	2.5
800	30	1,995	9.1	61	267	4.5
750	30	2,525	6.0	58	266	6.8
700	30	3,089	2.7	54	269	8.0
650	30	3,681	- .7	53	268	11.9
600	30	4,321	- 4.4	40	257	13.8
550	30	4,996	- 8.6	35	253	12.0
500	30	5,734	-13.7		254	14.2
450	30	6,518	-19.4		259	16.7
400	30	7,392	-25.7		261	19.4
350	30	8,346	-33.0		262	23.1
300	30	9,412	-41.2		259	27.8
250	30	10,627	-50.3		253	34.2
200	30	12,054	-58.2		251	38.7
175	30	12,895	-58.0		259	31.3
150	30	13,871	-56.1		257	26.8
125	30	15,030	-56.6		256	20.0
100	30	16,443	-57.2		265	14.8
80	30	17,853	-57.9		269	5.6
70	30	18,702	-57.4		346	2.1
60	30	19,676	-55.7		60	3.5
50	30	20,841	-54.1		72	6.2
40	30	22,279	-52.7		75	11.9
30	29	24,146	-50.4		78	14.4
25	28	25,340	-48.8		82	16.1
20	27	26,817	-45.9		83	17.9
15	22	28,736	-43.1		95	23.7

BOISE, IDAHO
914 MB

Standard pressure surface (mb)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind Direction	Wind Speed
SURFACE	30	868	11.5	68	170	1.4
1000	30	104				
950	30	541				
900	30	997	14.2	56	267	1.0
850	30	1,481	14.8	44	326	5.2
800	30	1,991	11.7	45	303	3.9
750	30	2,524	8.1	46	272	4.9
700	30	3,094	4.1	47	261	8.7
650	30	3,687	- .4	49	254	12.4
600	30	4,327	- 5.1	52	253	16.9
550	30	4,996	-10.0	47	253	19.8
500	30	5,734	-15.2	34	251	22.5
450	30	6,511	-20.9	33	248	25.5
400	30	7,383	-27.1		249	25.5
350	30	8,333	-34.0		246	28.4
300	30	9,393	-42.0		248	31.1
250	29	10,609	-50.7		246	32.8
200	29	12,039	-57.4		250	34.0
175	29	12,883	-56.9		252	32.1
150	29	13,861	-56.1		252	28.0
125	29	15,020	-56.1		250	20.4
100	29	16,435	-57.4		240	13.4
80	29	17,845	-57.2		229	5.1
70	29	18,693	-56.7		200	1.9
60	29	19,671	-55.6		116	2.7
50	28	20,839	-54.4		84	7.0
40	28	22,274	-52.8		85	9.5
30	28	24,142	-50.0		79	10.1
25	27	25,343	-47.9		77	14.2
20	23	26,829	-45.1		79	13.8
15	17	28,748	-41.3		91	15.5

BROWNSVILLE, TEXAS
1012 MB

Standard pressure surface (mb)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind Direction	Wind Speed
SURFACE	29	7	24.5	93	138	6.2
1000	29	109	24.7	89	143	10.7
950	29	555	22.4	84	159	25.5
900	29	1,029	19.7	79	166	27.2
850	29	1,521	17.9	64	166	23.9
800	29	2,038	15.3	55	163	17.1
750	29	2,575	12.4	49	166	12.2
700	29	3,159	9.5	41	145	5.1
650	29	3,763	5.7	40	77	2.7
600	29	4,420	1.3	42	357	3.3
550	29	5,107	- 3.2	39	335	9.9
500	29	5,862	- 7.9		319	10.9
450	29	6,668	-12.6		323	11.9
400	29	7,563	-18.6		323	16.3
350	29	[illegible],545	-25.7		309	18.8
300	29	9,645	-33.7		299	24.9
250	28	10,898	-43.3		298	28.4
200	28	12,366	-53.8		294	33.8
175	28	13,212	-59.6		293	33.0
150	27	14,160	-65.5		298	27.2
125	25	15,250	-70.7		305	18.7
100	25	16,562	-73.3		356	7.8
80	24	17,875	-69.5		73	19.2
70	24	18,680	-66.3		84	23.3
60	22	19,626	-62.2		96	27.2
50	22	20,762	-58.7		89	31.5
40	22	22,177	-54.7		89	34.0
30	20	24,031	-50.5		88	36.7
25	19	25,223	-48.7		89	38.7
20	18	26,696	-46.2		86	36.5
15	16	28,634	-41.6		85	36.7
	13	31,415	-36.1		86	41.0
	9	33,899	-32.5			

BUFFALO, N. Y.
992 MB

Standard pressure surface (mb)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind Direction	Wind Speed
SURFACE	30	218	14.9	79	202	3.5
1000	30	149				
950	30	586	16.2	69	244	8.7
900	30	1,044	14.2	65	272	7.4
850	30	1,524	11.2	66	275	9.3
800	30	2,028	8.4	58	281	12.4
750	30	2,555	6.1	52	283	14.4
700	30	3,123	3.6	41	283	15.2
650	30	3,718	.4		280	17.1
600	30	4,359	- 3.4		277	19.[illegible]
550	30	5,036	- 7.8		276	21.2
500	30	5,777	-12.6		276	24.7
450	30	6,563	-18.2		274	24.1
400	30	7,443	-24.4		274	27.4
350	30	8,402	-31.3		271	31.9
300	30	9,477	-39.5		271	34.8
250	30	10,701	-48.6		272	38.3
200	30	12,138	-58.0		276	41.0
175	30	12,976	-60.0		280	38.5
150	30	13,939	-59.4		277	30.1
125	30	15,082	-59.4		280	26.0
100	30	16,478	-60.0		286	20.6
80	30	17,873	-59.2		302	10.3
70	30	18,709	-57.9		304	7.4
60	30	19,688	-55.9		331	3.3
50	30	20,854	-53.7		62	5.1
40	30	22,296	-51.5		78	6.0
30	30	24,172	-49.3		78	8.5
25	30	25,371	-47.7		80	9.3
20	30	26,851	-45.4		79	9.9
15	25	28,780	-42.2		83	13.4
	12	31,492	-37.4			

BURRWOOD, LA.
1015 MB

Standard pressure surface (mb)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind Direction	Wind Speed
SURFACE	30	3	26.0	84	193	3.3
1000	30	133	25.2	82	191	4.1
950	30	582	22.2	80	186	3.3
900	30	1,053	19.5	75	166	3.1
850	30	1,544	16.8	68	151	3.7
800	30	2,059	13.8	65	169	2.9
750	30	2,595	10.6	63	204	3.3
700	30	3,173	7.4	56	242	4.1
650	30	3,774	3.5	55	269	6.4
600	30	4,425	- .7	58	287	8.4
550	30	5,109	- 4.5	51	283	7.2
500	30	5,861	- 8.8	45	287	7.4
450	30	6,668	-13.7	46	288	9.1
400	30	7,556	-19.1	41	285	11.1
350	30	8,536	-26.0	37	276	11.5
300	30	9,634	-34.1	34	268	12.0
250	30	10,885	-43.9		259	12.6
200	30	12,347	-54.7		276	16.7
175	30	13,192	-59.4		282	16.5
150	30	14,146	-64.6		288	16.1
125	30	15,248	-68.8		291	11.9
100	30	16,578	-70.3		348	6.6
80	30	17,910	-67.7		66	11.1
70	30	18,724	-64.9		78	13.6
60	30	19,667	-61.3		82	18.1
50	29	20,811	-57.0		85	22.7
40	28	22,236	-53.8		89	25.1
30	28	24,102	-49.7		91	24.5
25	28	25,300	-47.9		89	24.2
20	28	26,780	-44.9		85	26.6
15	28	28,720	-40.9		81	28.6
	27	31,500	-36.8		85	36.9
	21	33,978	-32.1		89	36.5

CANTON IS., PACIFIC AREA
1010 MB

Standard pressure surface (mb)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind Direction	Wind Speed
SURFACE	30	4	26.8	77	78	7.6
1000	30	96	26.4	77	83	8.9
950	30	544	23.1	77	95	13.0
900	30	1,019	20.0	73	94	12.8
850	30	1,510	17.1	66	90	13.2
800	30	2,026	14.8	52	92	13.4
750	30	2,569	12.6	37	76	16.5
700	30	3,146	9.5	27	68	14.4
650	30	3,752	6.0		93	14.2
600	30	4,409	2.4		87	15.3
550	30	5,102	- 1.7		89	14.6
500	30	5,859	- 6.1		87	14.2
450	30	6,671	-10.9		82	14.6
400	30	7,573	-16.7		87	14.4
350	30	8,563	-23.8		92	8.7
300	30	9,671	-32.2		89	6.6
250	30	10,931	-42.5		81	5.4
200	30	12,401	-54.4		39	4.1
175	30	13,244	-61.3		22	4.5
150	30	14,185	-68.3		276	1.9
125	29	15,258	-75.5		40	1.2
100	28	16,534	-78.6		317	3.3
80	26	17,820	-73.9		276	25.8
70	26	18,609	-69.1		272	26.1
60	26	19,536	-65.9		269	37.3
50	26	20,652	-63.0		269	26.2
40	26	22,036	-60.0		97	9.3
30	26	23,851	-56.3		89	44.1
25	25	25,018	-53.6		88	52.1
20	24	26,464	-49.8		89	56.7
15	2	28,362	-46.3		91	62.8
	19	31,086	-41.1		90	50.5
	15	33,540	-35.3		76	18.5
	12	35,88[illegible]	-33.8			

See reference note at end of table

RAWINSONDE DATA

Average monthly values

CAPE HATTERAS, N. C.
1016 MB

Standard pressure surface (mb)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind	
					Direction	Speed
SURFACE	29	4	22.3	88	356	.8
1000	29	140	22.0	84	335	.6
950	29	582	19.2	79	247	3.3
900	29	1,048	16.5	72	245	3.5
850	29	1,533	13.5	71	247	3.1
800	29	2,042	11.3	56	253	3.5
750	29	2,578	9.0	50	246	5.1
700	29	3,149	6.4	44	246	6.2
650	29	3,748	3.1	45	243	7.4
600	29	4,398	- .5	43	240	8.7
550	28	5,081	- 4.5		246	9.5
500	28	5,832	- 8.9		248	11.9
450	28	6,636	-14.1		252	12.2
400	28	7,525	-20.3	38	250	13.4
350	28	8,500	-27.3	36	258	14.8
300	28	9,592	-35.4	35	259	17.9
250	28	10,836	-45.4		271	19.2
200	28	12,287	-56.8		277	23.5
175	28	13,122	-62.0		280	24.5
150	28	14,069	-64.3		279	24.5
125	28	15,182	-64.9		282	19.8
100	28	16,540	-65.6		289	12.0
80	28	17,905	-63.2		354	5.2
70	28	18,735	-61.4		41	4.5
60	28	19,691	-58.5		80	8.4
50	28	20,847	-55.0		87	13.2
40	28	22,282	-52.1		94	14.8
30	26	24,160	-48.5		91	14.6
25	25	25,366	-46.3		84	14.8
20	24	26,860	-44.2		84	14.4
15	22	28,803	-40.8		91	16.5
10	19	31,580	-35.3		90	20.6
7	12	34,114	-30.0			

CARIBOU, ME.
992 MB

Standard pressure surface (mb)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind	
					Direction	Speed
SURFACE	30	191	12.3	84	223	2.5
1000	30	121				
950	30	551	12.9	65	272	6.2
900	30	1,006	11.3	62	292	8.9
850	30	1,481	8.4	65	294	11.1
800	30	1,980	5.2	66	294	13.0
750	30	2,505	2.3	60	287	15.3
700	30	3,060	- .4	55	287	17.3
650	30	3,646	- 3.5	50	285	20.2
600	30	4,278	- 7.1	47	282	22.0
550	30	4,947	-11.1	41	282	23.9
500	30	5,678	-15.6		280	26.4
450	30	6,460	-21.0		277	30.1
400	30	7,325	-27.0		274	34.6
350	30	8,275	-33.8		272	38.7
300	30	9,338	-41.7		273	42.7
250	30	10,553	-49.5		273	49.5
200	29	11,988	-54.9		275	47.2
175	29	12,840	-55.3		273	40.8
150	29	13,823	-55.3		274	34.4
125	29	14,987	-55.2		275	27.6
100	29	16,412	-55.3		276	18.1
80	29	17,837	-55.0		281	11.9
70	29	18,700	-53.9		288	7.4
60	29	19,687	-52.3		297	2.7
50	29	20,871	-50.9		82	1.9
40	29	22,329	-49.7		85	4.9
30	29	24,222	-47.6		92	12.4
25	27	25,430	-46.0		92	14.0
20	26	26,921	-43.6		88	14.2
15	24	28,877	-39.8		88	19.8
10	21	31,697	-32.2		94	28.6
7	17	34,251	-23.0			

CHARLESTON, S. C.
1015 MB

Standard pressure surface (mb)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind	
					Direction	Speed
SURFACE	30	13	21.2	91	8	1.7
1000	30	142	22.1	85	76	1.2
950	30	586	20.6	79	201	1.7
900	30	1,055	18.0	76	258	2.3
850	30	1,543	15.0	75	262	2.9
800	30	2,055	12.1	71	252	3.5
750	30	2,593	9.5	57	244	4.9
700	30	3,165	6.5	54	251	6.4
650	30	3,767	3.1	54	247	7.6
600	30	4,415	- .3	48	250	7.8
550	30	5,100	- 4.3	42	256	7.8
500	30	5,853	- 8.7	40	254	8.7
450	30	6,658	-13.9	38	255	9.9
400	30	7,548	-19.9	39	255	10.9
350	30	8,525	-26.9	40	253	13.8
300	30	9,618	-35.2	35	262	16.9
250	30	10,864	-44.9		260	18.8
200	30	12,318	-56.2		267	20.6
175	30	13,156	-61.4		268	22.3
150	30	14,104	-64.9		276	22.7
125	30	15,212	-66.6		282	15.5
100	30	16,559	-67.4		305	8.4
80	30	17,912	-64.9		23	5.4
70	30	18,736	-62.8		55	7.6
60	30	19,688	-59.6		73	10.3
50	30	20,838	-56.5		87	15.2
40	30	22,267	-53.0		92	17.5
30	29	24,137	-49.3		93	18.1
25	28	25,341	-47.0		91	17.9
20	27	26,826	-45.3		86	16.9
15	14	28,765	-42.0		81	22.2

COLD BAY, ALASKA
1014 MB

Standard pressure surface (mb)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind	
					Direction	Speed
SURFACE	30	30	5.0	92	263	4.1
1000	30	147	4.6	85	274	4.9
950	30	570	4.0	75	291	6.4
900	30	1,005	3.7	66	298	5.6
850	30	1,469	2.9	57	301	8.5
800	30	1,958	1.3	50	286	10.1
750	30	2,477	- 1.1	43	303	12.6
700	30	3,023	- 3.5	38	298	13.2
650	30	3,604	- 6.5	37	298	14.2
600	30	4,227	- 9.9	36	298	15.9
550	30	4,891	-13.7	36	298	16.7
500	30	5,610	-18.3		299	22.0
450	30	6,379	-23.8		294	21.8
400	30	7,238	-30.0	42	294	23.1
350	30	8,175	-36.7		301	22.7
300	30	9,225	-44.2		289	27.0
250	30	10,427	-51.1		294	27.2
200	30	11,862	-55.1		307	22.9
175	30	12,717	-54.3		315	17.9
150	30	13,707	-53.7		303	14.6
125	28	14,878	-54.2		316	9.5
100	28	16,308	-53.9		324	4.1
80	28	17,743	-53.2		23	3.3
70	28	18,604	-52.8		50	4.1
60	27	19,597	-52.3		53	4.9
50	25	20,778	-51.9		82	8.4
40	25	22,226	-51.2		78	8.9
30	25	24,100	-50.1		94	12.2
25	25	25,295	-48.4		90	11.9
20	23	26,775	-46.1		84	15.2
15	21	28,693	-43.3		81	16.3
10	16	31,472	-38.9		75	19.4
7	9	33,907	-34.9			
	7	36,299	-31.0			

COLUMBIA, MO.
987 MB

Standard pressure surface (mb)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind	
					Direction	Speed
SURFACE	30	238	17.4	94	122	3.3
1000	30	124				
950	30	568	20.2	76	190	5.4
900	30	1,033	17.9	72	217	6.8
850	30	1,520	15.0	66	235	7.2
800	30	2,032	12.6	57	236	6.8
750	30	2,567	9.4	51	241	7.2
700	30	3,140	6.1	45	246	7.4
650	30	3,745	2.5	40	258	7.4
600	30	4,386	- 1.5	36	250	6.8
550	30	5,064	- 5.7		248	6.6
500	30	5,815	-10.1		261	6.6
450	30	6,612	-15.4		261	7.8
400	30	7,500	-22.0		259	10.5
350	30	8,468	-29.1		265	13.0
300	30	9,552	-37.3		272	18.5
250	30	10,786	-46.9		282	27.2
200	30	12,230	-57.3		277	35.0
175	28	13,064	-60.7		275	35.0
150	28	14,019	-61.9		273	28.4
125	28	15,147	-62.4		270	21.4
100	28	16,520	-63.7		273	15.2
80	28	17,890	-63.1		299	6.6
70	28	18,714	-61.8		331	3.7
60	28	19,673	-59.4		53	7.2
50	28	20,824	-55.9		75	10.5
40	28	22,254	-53.0		86	10.5
30	28	24,119	-50.7		91	11.3
25	27	25,317	-48.5		88	11.1
20	23	26,788	-46.0		84	13.8

DAYTON, OHIO
983 MB

Standard pressure surface (mb)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind	
					Direction	Speed
SURFACE	30	297	16.9	84	100	1.0
1000	30	147				
950	30	588	18.9	69	216	3.3
900	30	1,052	16.8	68	265	5.6
850	30	1,538	13.5	70	270	6.6
800	30	2,046	10.4	61	274	7.8
750	30	2,575	7.5	46	268	8.4
700	29	3,143	4.6	39	262	8.4
650	29	3,739	1.3	37	259	9.7
600	29	4,385	- 2.3		264	10.7
550	29	5,065	- 6.3		265	13.4
500	29	5,811	-11.1		264	14.0
450	29	6,606	-16.6		267	15.7
400	29	7,487	-22.9		274	17.5
350	29	8,453	-29.9		279	21.6
300	29	9,533	-38.3		274	24.5
250	29	10,764	-47.4		274	29.0
200	29	12,207	-56.9		278	33.0
175	29	13,046	-60.5		281	33.4
150	29	14,004	-61.2		280	29.1
125	29	15,135	-61.9		278	23.9
100	29	16,513	-62.3		289	17.5
80	29	17,892	-61.5		304	8.4
70	29	18,726	-60.3		333	4.3
60	29	19,687	-57.9		33	4.3
50	29	20,843	-55.4		69	6.4
40	28	22,275	-53.1		78	8.9
30	26	24,143	-50.2		79	11.5
25	26	25,338	-48.2		84	11.7
20	25	26,810	-45.9		89	11.7
15	18	28,721	-43.5		80	10.3

DENVER, COLO.
838 MB

Standard pressure surface (mb)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind	
					Direction	Speed
SURFACE	30	1,611	11.2	71	210	1.7
1000	30	104				
950	30	545				
900	30	1,009				
850	30	1,492				
800	30	2,004	13.3	59	238	3.3
750	30	2,545	11.2	52	213	3.5
700	30	3,118	7.8	49	250	5.1
650	30	3,721	3.7	45	264	6.4
600	30	4,369	- 1.3	48	267	8.4
550	30	5,049	- 6.8	49	265	13.0
500	30	5,792	-12.4	44	259	15.9
450	30	6,583	-18.3	36	253	16.9
400	30	7,457	-24.6		247	18.7
350	30	8,419	-31.7		241	22.9
300	30	9,487	-40.0		237	26.2
250	30	10,708	-48.9		240	28.8
200	30	12,146	-56.9		245	31.5
175	30	12,987	-58.6		253	33.0
150	30	13,956	-58.2		253	29.1
125	30	15,101	-60.0		253	20.8
100	30	16,492	-61.1		250	11.9
80	30	17,878	-61.1		222	4.5
70	30	18,717	-60.2		173	2.1
60	30	19,676	-58.0		92	3.5
50	30	20,831	-56.0		81	6.6
40	30	22,258	-53.9		79	8.5
30	30	24,117	-51.2		84	10.9
25	30	25,309	-49.2		89	11.3
20	28	26,776	-47.3		82	12.4
15	27	28,689	-44.7		85	11.3
	10	31,431	-41.3			

DODGE CITY, KANS.
924 MB

Standard pressure surface (mb)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind	
					Direction	Speed
SURFACE	30	792	16.4	89	158	2.1
1000	30	114				
950	30	555				
900	30	1,020	18.0	70	183	6.4
850	30	1,510	17.3	59	209	10.3
800	30	2,026	14.9	54	208	8.7
750	30	2,564	11.4	54	203	7.2
700	30	3,143	7.4	57	220	5.4
650	30	3,744	3.1	55	241	5.2
600	30	4,392	- 1.4	51	252	5.2
550	30	5,074	- 6.3	49	279	9.7
500	30	5,819	-11.5	49	272	9.3
450	30	6,616	-16.5	39	270	10.5
400	30	7,496	-22.5		273	13.4
350	30	8,462	-29.7		254	15.3
300	30	9,543	-38.1		248	21.6
250	30	10,773	-47.6		243	23.9
200	30	12,214	-57.2		240	33.4
175	30	13,051	-60.1		245	33.8
150	30	14,013	-60.1		258	28.8
125	30	15,146	-62.0		265	21.8
100	30	16,519	-63.9		255	11.1
80	29	17,891	-63.1		234	2.5
70	29	18,724	-61.1		70	2.1
60	29	19,677	-59.1		76	5.1
50	29	20,827	-56.5		87	8.0
40	29	22,251	-54.1		85	9.1
30	29	24,112	-50.8		81	13.2
25	28	25,299	-48.8		93	11.9
20	20	26,759	-46.9		91	10.1
15	9	28,664	-43.0			

EL PASO, TEXAS
881 MB

Standard pressure surface (mb)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind	
					Direction	Speed
SURFACE	30	1,193	20.0	39		.0
1000	30	77				
950	30	528				
900	30	1,007				
850	30	1,501	21.3	33	150	2.1
800	30	2,024	18.4	33	196	4.1
750	30	2,567	14.7	31	221	5.1
700	30	3,153	10.4	31	227	4.7
650	30	3,755	5.5	33	249	6.6
600	30	4,413	.3	36	248	9.1
550	30	5,089	- 5.2	37	241	12.0
500	30	5,846	-10.6	34	245	13.8
450	30	6,644	-16.3		253	18.7
400	30	7,528	-22.1		254	24.1
350	30	8,496	-29.0		259	27.2
300	30	9,580	-37.2		261	34.2
250	30	10,817	-46.0		265	41.8
200	30	12,269	-55.4		266	48.2
175	30	13,113	-59.5		266	45.1
150	29	14,072	-63.4		264	39.6
125	29	15,181	-68.0		256	27.6
100	29	16,514	-69.4		251	13.0
80	29	17,853	-67.5		104	4.1
70	29	18,661	-65.0		107	9.1
60	29	19,609	-61.9		94	13.8
50	29	20,749	-58.2		93	15.5
40	29	22,164	-55.5		93	17.3
30	29	24,011	-52.1		88	21.4
25	29	25,198	-49.9		84	22.3
20	27	26,672	-46.9		87	22.0
15	25	28,594	-44.4		85	22.7
	6	31,361	-41.5			

ELY, NEV.
809 MB

Standard pressure surface (mb)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind	
					Direction	Speed
SURFACE	30	1,908	7.2	56	188	4.7
1000	30	114				
950	30	551				
900	30	1,009				
850	30	1,494				
800	30	1,999	11.4	46	186	4.7
750	30	2,542	11.2	36	169	3.1
700	30	3,111	7.5	33	247	4.5
650	30	3,711	3.0	35	242	8.9
600	30	4,359	- 2.2	39	236	9.1
550	30	5,035	- 7.7	40	231	11.5
500	30	5,776	-13.1	37	243	12.2
450	30	6,567	-18.5		253	16.1
400	30	7,439	-25.1		263	15.3
350	30	8,394	-32.7		267	17.7
300	30	9,460	-41.4		259	22.2
250	30	10,675	-50.0		257	27.6
200	29	12,108	-57.1		257	30.9
175	29	12,950	-58.1		252	33.2
150	29	13,921	-58.3		251	30.3
125	29	15,065	-59.5		249	22.0
100	29	16,457	-61.0		251	9.7
80	29	17,847	-59.5		216	4.9
70	29	18,696	-58.3		133	1.9
60	29	19,657	-57.2		97	4.1
50	29	20,815	-55.7		90	7.4
40	29	22,244	-53.4		79	9.7
30	29	24,111	-49.8		85	11.3
25	29	25,310	-47.6		81	10.9
20	25	26,786	-45.1		86	11.7
15	23	28,724	-40.6		85	13.0
	10	31,544	-35.8			

FAIRBANKS, ALASKA
995 MB

Standard pressure surface (mb)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind	
					Direction	Speed
SURFACE	30	135	10.9	78	321	2.5
1000	30	89	15.5			
950	30	515	11.9	54	307	3.7
900	30	970	9.1	53	289	4.1
850	30	1,441	5.6	56	273	3.5
800	30	1,934	2.0	60	271	1.9
750	30	2,446	- 2.0	64	229	1.0
700	30	2,996	- 5.9	68	257	1.9
650	30	3,568	- 9.5	67	300	2.3
600	30	4,188	-13.3	63	320	3.3
550	30	4,840	-17.7	58	323	4.1
500	30	5,552	-22.5	55	314	2.9
450	30	6,309	-28.0	47	323	6.4
400	30	7,154	-34.3	42	330	7.4
350	30	8,074	-41.1		328	9.9
300	30	9,107	-47.5		326	13.0
250	30	10,299	-50.9		329	13.8
200	29	11,745	-48.5		325	10.7
175	29	12,626	-47.4		327	8.5
150	29	13,643	-47.9		324	6.6
125	29	14,845	-48.5		335	2.7
100	29	16,314	-48.0		338	2.1
80	29	17,785	-47.8		56	3.1
70	29	18,668	-47.6		77	3.7
60	29	19,686	-47.2		89	5.6
50	28	20,890	-47.0		103	7.2
40	28	22,369	-46.6		88	9.7
30	26	24,278	-45.4		88	14.0
25	26	25,497	-44.1		88	15.7
20	26	27,000	-42.0		90	17.7
15	25	28,963	-38.5		87	17.5
10	24	31,773	-34.4		83	21.8
7	18	34,308	-30.9		74	29.1
5	11	36,693	-28.1			

FLINT, MICH.
991 MB

Standard pressure surface (mb)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind	
					Direction	Speed
SURFACE	30	234	14.8	87	215	1.0
1000	30	152				
950	30	590	16.5	66	255	4.5
900	30	1,048	14.3	59	278	7.2
850	30	1,530	12.2	53	283	8.7
800	30	2,036	9.5	51	277	10.5
750	30	2,569	6.6	49	277	11.7
700	30	3,132	3.7	45	276	13.4
650	30	3,730	.3	43	275	14.8
600	30	4,369	- 3.3		272	15.7
550	30	5,051	- 7.5		276	15.9
500	30	5,788	-12.4		276	19.0
450	30	6,580	-18.0		279	21.2
400	30	7,454	-24.4		283	21.6
350	30	8,413	-31.4		283	24.5
300	30	9,486	-39.4		289	29.0
250	30	10,709	-48.5		288	32.8
200	30	12,146	-57.1		286	37.1
175	30	12,985	-59.4		285	37.1
150	30	13,950	-59.3		285	32.8
125	30	15,092	-59.4		280	24.5
100	30	16,487	-59.9		291	18.1
80	30	17,882	-59.4		304	11.5
70	30	18,724	-58.2		324	7.0
60	30	19,696	-56.3		16	3.5
50	30	20,860	-54.4		54	5.6
40	30	22,298	-52.4		75	8.2
30	30	24,172	-49.6		82	8.9
25	29	25,370	-48.1		83	10.7
20	26	26,845	-45.8		80	12.2
15	18	28,737	-42.7		84	16.3
10	8	31,521	-37.7			

FORT WORTH, TEXAS
993 MB

Standard pressure surface (mb)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind	
					Direction	Speed
SURFACE	30	180	21.4	86	178	1.6
1000	30	119				
950	30	571	21.9	75	194	10.3
900	30	1,036	20.2	70	197	12.8
850	30	1,528	17.6	66	208	11.7
800	30	2,045	14.9	58	218	9.9
750	30	2,589	11.5	54	225	8.5
700	30	3,162	7.6	53	236	7.6
650	30	3,765	3.4	56	257	7.2
600	30	4,413	- 1.1	52	282	8.2
550	30	5,096	- 5.7	49	289	9.5
500	30	5,843	-10.1	43	282	10.3
450	30	6,644	-15.1		280	12.6
400	30	7,529	-21.1		276	15.3
350	30	8,502	-28.1		275	18.3
300	30	9,590	-36.4		268	18.1
250	30	10,829	-46.0		270	17.3
200	30	12,279	-56.0		269	23.5
175	29	13,118	-60.2		267	29.7
150	29	14,074	-63.0		272	27.6
125	29	15,186	-66.5		275	21.0
100	29	16,529	-67.9		277	5.6
80	29	17,871	-66.6		75	4.1
70	29	18,687	-64.7		83	10.3
60	29	19,630	-60.9		92	13.4
50	29	20,772	-57.5		96	16.1
40	29	22,192	-54.4		94	16.1
30	29	24,047	-51.1		88	17.5
25	28	25,240	-49.1		87	18.3
20	27	26,712	-46.4		82	17.9
15	21	28,627	-43.3		75	20.6

GLASGOW, MONT.
932 MB

Standard pressure surface (mb)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind	
					Direction	Speed
SURFACE	30	696	12.7	81	87	3.7
1000	30	101				
950	30	536				
900	30	995	15.1	62	201	2.5
850	30	1,478	13.3	53	269	3.9
800	30	1,986	9.9	55	265	6.6
750	30	2,514	6.3	54	260	8.9
700	30	3,082	2.6	53	266	11.1
650	30	3,672	- 1.2	47	266	13.2
600	30	4,311	- 5.2	42	262	15.2
550	30	4,983	- 9.8	40	266	16.9
500	30	5,717	-15.1	39	259	17.7
450	30	6,498	-20.8	40	259	18.7
400	30	7,365	-27.3	38	256	20.6
350	30	8,312	-34.6		253	23.5
300	30	9,370	-42.7		249	30.3
250	30	10,578	-51.0		248	30.7
200	29	12,003	-57.2		250	32.6
175	29	12,847	-56.4		253	28.4
150	29	13,830	-54.5		252	23.9
125	29	14,996	-55.0		252	16.7
100	28	16,414	-56.4		256	13.2
80	28	17,830	-56.3		259	4.7
70	28	18,681	-55.9		271	2.7
60	28	19,661	-55.0		63	.8
50	27	20,827	-53.7		120	4.9
40	27	22,265	-52.2		88	8.2
30	27	24,133	-50.6		82	10.9
25	27	25,326	-48.5		78	13.4
20	26	26,804	-45.9		83	16.9
15	20	28,712	-42.4		95	20.4
10	13	31,442	-37.6			

GRAND JUNCTION, COLO.
851 MB

Standard pressure surface (mb)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind	
					Direction	Speed
SURFACE	30	1,474	16.0	33	126	4.1
1000	30	71				
950	30	512				
900	30	985				
850	30	1,481	16.5	35	119	3.9
800	30	1,999	16.6	30	129	6.4
750	30	2,540	13.3	30	178	4.9
700	30	3,121	9.0	33	224	5.1
650	30	3,723	3.5	38	243	8.5
600	30	4,373	- 1.7	46	240	10.1
550	30	5,049	- 7.4	48	233	15.0
500	30	5,794	-13.2	46	235	16.9
450	30	6,581	-19.1	38	241	19.0
400	30	7,454	-25.1		249	20.8
350	30	8,409	-32.4		245	23.1
300	30	9,477	-40.7		247	26.8
250	30	10,695	-49.2		251	27.8
200	30	12,131	-57.0		259	31.5
175	30	12,972	-58.7		260	33.0
150	30	13,938	-59.4		256	31.7
125	30	15,078	-60.2		253	23.3
100	29	16,467	-61.8		248	12.0
80	29	17,847	-62.0		202	4.5
70	29	18,682	-61.1		145	3.9
60	29	19,636	-58.8		104	5.8
50	28	20,787	-56.3		81	8.4
40	28	22,211	-54.3		78	10.5
30	27	24,063	-51.8		89	10.9
25	26	25,249	-49.6		83	11.9
20	26	26,718	-47.1		88	11.9
15	25	28,637	-44.7		89	14.0
10	22	31,385	-39.2		90	13.0
7	21	33,859	-34.9		84	18.3
5	19	36,206	-31.5			

See reference note at end of table

RAWINSONDE DATA

Average monthly values

Standard pressure surface (mb.)	GREAT FALLS, MONT. 887 MB					
	Number of observations	Dynamic height	Temperature	Relative humidity	Wind Direction	Wind Speed
SURFACE	30	1,123	10.1	75	227	5.1
1000	30	102				
950	30	537				
900	30	995				
850	30	1,477	12.6	48	243	9.9
800	30	1,982	9.6	49	248	8.2
750	30	2,510	5.9	52	285	9.7
700	30	3,076	2.4	51	248	10.1
650	30	3,665	- 1.8	52	249	12.4
600	30	4,301	- 6.2	47	247	15.5
550	30	4,970	-10.9	41	248	19.4
500	30	5,704	-15.5	38	244	21.6
450	30	6,482	-21.1	35	244	22.7
400	30	7,348	-27.5	33	247	23.3
350	30	8,294	-34.9		244	28.8
300	30	9,351	-42.9		242	28.4
250	30	10,559	-51.6		244	33.6
200	30	11,985	-57.0		246	33.4
175	30	12,833	-55.5		247	30.3
150	30	13,820	-54.2		246	26.2
125	30	14,989	-54.3		250	20.8
100	30	16,416	-55.7		242	13.2
80	30	17,836	-55.8		239	5.1
70	30	18,685	-55.5		229	1.6
60	30	19,670	-54.8		127	1.0
50	30	20,838	-53.6		92	3.7
40	30	22,276	-52.4		80	6.4
30	30	24,143	-50.2		61	15.0
25	30	25,337	-48.6		86	13.8
20	29	26,809	-46.3		83	15.0
15	27	28,735	-42.8		89	15.7
10	22	31,509	-37.4		90	17.5
7	20	33,989	-33.7		90	21.2
5	17	36,365	-30.1			

Standard pressure surface (mb.)	GREEN BAY, WIS. 992 MB					
	Number of observations	Dynamic height	Temperature	Relative humidity	Wind Direction	Wind Speed
SURFACE	30	210	13.6	87	12	1.0
1000	30	139				
950	30	573	15.4	67	245	2.9
900	30	1,031	13.2	68	256	5.1
850	30	1,510	10.6	66	266	6.0
800	30	2,014	8.5	56	273	6.6
750	30	2,543	6.1	48	271	8.5
700	30	3,108	3.1	42	271	10.9
650	30	3,700	- .1	36	274	12.4
600	30	4,342	- 3.7	34	268	13.8
550	30	5,014	- 8.1		274	16.1
500	30	5,758	-13.0		273	17.9
450	30	6,545	-18.5		275	20.8
400	30	7,421	-24.8		277	22.9
350	30	8,379	-31.9		281	24.3
300	30	9,452	-39.8		281	27.8
250	29	10,673	-48.8		282	33.6
200	28	12,110	-57.1		286	39.8
175	28	12,950	-59.4		281	38.3
150	28	13,918	-58.6		280	30.3
125	28	15,065	-58.4		277	23.5
100	28	16,466	-59.1		287	18.3
80	28	17,865	-58.9		299	12.2
70	28	18,709	-58.0		319	8.4
60	28	19,680	-56.2		360	5.4
50	28	20,842	-54.4		39	6.4
40	28	22,278	-52.4		66	8.2
30	26	24,146	-49.9		85	11.7
25	26	25,341	-48.4		86	12.4
20	25	26,814	-45.6		84	13.0
15	15	28,748	-42.3		88	14.0
10						
7						
5						

Standard pressure surface (mb.)	GREENSBORO, N. C. 986 MB					
	Number of observations	Dynamic height	Temperature	Relative humidity	Wind Direction	Wind Speed
SURFACE	30	273	18.4	93		.0
1000	30	151				
950	30	593	18.8	79	267	1.4
900	30	1,056	17.0	72	321	2.5
850	30	1,542	14.1	72	303	4.1
800	30	2,051	11.1	70	295	5.6
750	30	2,588	8.4	63	279	6.6
700	30	3,156	5.5	58	269	7.2
650	30	3,757	2.3	52	259	7.2
600	30	4,402	- 1.2	47	254	8.2
550	30	5,089	- 4.9	43	245	9.9
500	30	5,835	- 9.6	42	244	10.9
450	30	6,638	-14.7		249	12.0
400	30	7,524	-20.8		255	13.2
350	30	8,497	-28.0		256	15.0
300	30	9,586	-36.5		259	16.9
250	30	10,823	-46.3		263	18.5
200	30	12,270	-57.2		269	23.7
175	30	13,106	-61.9		274	25.1
150	30	14,055	-64.0		273	25.8
125	30	15,169	-64.9		275	20.8
100	30	16,529	-65.2		288	13.6
80	30	17,893	-63.8		337	4.3
70	30	18,723	-61.4		33	4.3
60	29	19,679	-58.8		63	7.2
50	29	20,832	-55.8		77	11.1
40	29	22,264	-52.9		87	13.2
30	29	24,136	-49.5		90	12.2
25	24	25,343	-47.4		93	12.2
20	12	26,850	-45.0			
15						
10						
7						
5						

Standard pressure surface (mb.)	GUAM, MARIANA IS. 999 MB					
	Number of observations	Dynamic height	Temperature	Relative humidity	Wind Direction	Wind Speed
SURFACE	30	111	24.6	93	89	3.1
1000	30	99	24.7			
950	30	552	23.6	79	92	12.0
900	30	1,023	21.3	75	96	12.8
850	30	1,517	18.7	70	97	10.7
800	30	2,036	15.7	70	97	10.3
750	30	2,580	12.7	66	99	10.5
700	30	3,159	9.4	62	98	10.1
650	30	3,769	5.8	59	99	9.7
600	30	4,421	1.9	58	93	9.5
550	30	5,115	- 2.1	54	86	8.7
500	30	5,870	- 6.2	49	85	7.4
450	30	6,683	-11.6	44	77	8.4
400	30	7,579	-17.2	42	77	7.2
350	30	8,567	-24.1		79	5.2
300	30	9,672	-32.6		78	1.7
250	30	10,929	-42.8		271	2.1
200	30	12,394	-55.0		267	6.8
175	30	13,233	-61.8		276	9.5
150	30	14,171	-68.9		271	8.4
125	30	15,242	-75.3		300	4.3
100	30	16,523	-77.0		72	10.1
80	29	17,814	-73.8		85	17.1
70	29	18,599	-70.4		84	18.8
60	29	19,527	-65.9		82	20.8
50	29	20,645	-61.9		84	24.7
40	29	22,039	-57.8		85	31.5
30	29	23,872	-54.1		88	41.4
25	27	25,051	-51.6		89	47.2
20	26	26,509	-49.6		90	54.4
15	18	28,409	-46.0		89	59.5
10	8	31,140	-42.8			
7						
5						

Standard pressure surface (mb.)	HILO, HAWAII 1016 MB					
	Number of observations	Dynamic height	Temperature	Relative humidity	Wind Direction	Wind Speed
SURFACE	30	11	20.7	87	236	4.3
1000	30	153	21.8	78	203	3.9
950	30	595	18.7	78	122	6.6
900	30	1,060	15.4	83	112	7.2
850	30	1,543	12.7	80	114	6.4
800	30	2,051	11.2	56	104	7.4
750	30	2,594	10.3	31	102	9.1
700	30	3,161	8.0	29	104	8.5
650	30	3,770	4.8		105	7.4
600	30	4,417	1.5		89	4.9
550	30	5,104	- 2.3		71	2.3
500	30	5,862	- 7.4		325	1.7
450	30	6,668	-13.0		290	4.1
400	30	7,562	-19.3		289	8.7
350	30	8,540	-26.6		283	14.4
300	29	9,635	-34.9		280	19.0
250	29	10,881	-44.7		273	25.6
200	29	12,336	-56.1		267	32.6
175	29	13,173	-62.2		267	35.6
150	29	14,112	-68.2		261	33.0
125	29	15,191	-73.3		256	27.4
100	28	16,492	-73.3		240	10.7
80	27	17,809	-70.3		115	9.3
70	27	18,605	-67.6		97	15.9
60	27	19,540	-64.4		96	22.5
50	26	20,666	-60.6		90	26.0
40	26	22,063	-56.7		92	32.3
30	26	23,911	-53.1		91	33.8
25	26	25,091	-51.3		90	38.5
20	26	26,549	-49.0		90	41.6
15	25	28,452	-45.6		90	43.3
10	24	31,188	-40.9		90	45.7
7	21	33,641	-39.0		93	49.7
5	15	35,930	-37.6		95	52.3

Standard pressure surface (mb.)	HUNTINGTON, W. VA. 988 MB					
	Number of observations	Dynamic height	Temperature	Relative humidity	Wind Direction	Wind Speed
SURFACE	29	246	16.6	89	204	.6
1000	29	145				
950	29	590	18.9	74	243	4.1
900	29	1,050	16.8	70	266	5.2
850	29	1,536	13.6	71	281	6.4
800	29	2,044	10.4	65	273	7.4
750	29	2,578	8.0	50	267	6.4
700	29	3,146	4.9	43	254	6.4
650	29	3,744	1.9		252	8.5
600	29	4,390	- 1.6		257	8.5
550	29	5,072	- 5.7		255	11.1
500	29	5,819	-10.4		258	11.5
450	29	6,615	-15.8		263	12.6
400	29	7,500	-22.1		269	15.2
350	29	8,469	-29.1		273	16.9
300	29	9,553	-37.4		268	19.8
250	29	10,787	-47.2		269	24.7
200	29	12,231	-57.2		280	27.6
175	29	13,067	-61.7		285	28.6
150	29	14,018	-63.1		279	26.2
125	29	15,140	-63.0		277	21.6
100	29	16,510	-63.8		292	14.8
80	29	17,883	-62.4		310	6.6
70	29	18,716	-61.0		337	4.5
60	28	19,675	-58.3		42	4.7
50	27	20,829	-55.5		76	6.6
40	27	22,262	-52.9		81	8.9
30	27	24,131	-50.0		89	10.5
25	27	25,329	-48.0		82	11.3
20	24	26,809	-45.4		87	13.8
15	18	28,746	-41.8		89	15.0

Standard pressure surface (mb.)	INTERNAT. FALLS, MINN. 973 MB					
	Number of observations	Dynamic height	Temperature	Relative humidity	Wind Direction	Wind Speed
SURFACE	30	360	11.7	81	160	1.7
1000	30	131				
950	30	563	13.9	70	189	6.2
900	30	1,021	12.9	67	221	9.3
850	30	1,499	10.4	69	229	7.4
800	30	2,002	7.7	65	236	6.6
750	30	2,533	5.3	58	250	8.2
700	30	3,094	2.4	52	252	7.6
650	30	3,686	- 1.0	50	259	8.2
600	30	4,324	- 4.7	45	266	9.9
550	30	4,994	- 8.8	36	268	11.3
500	30	5,736	-13.6		275	13.0
450	30	6,524	-19.2		276	13.8
400	30	7,396	-25.6		276	15.3
350	30	8,351	-32.8		283	18.7
300	30	9,418	-41.3		286	24.5
250	30	10,632	-50.5		283	29.9
200	30	12,063	-57.1		274	34.8
175	30	12,909	-57.1		275	31.9
150	29	13,893	-56.0		280	26.8
125	29	15,056	-55.6		278	20.6
100	29	16,476	-56.1		287	13.8
80	29	17,895	-56.0		300	9.1
70	29	18,751	-55.1		318	6.8
60	28	19,735	-54.1		355	4.7
50	28	20,910	-52.5		60	5.4
40	27	22,361	-50.8		74	9.9
30	27	24,246	-48.4		77	13.2
25	26	25,456	-46.4		81	15.9
20	26	26,946	-43.9		83	19.0
15	22	28,879	-40.3		89	21.2
10	18	31,667	-34.8		90	22.5
7	12	34,188	-29.8		91	25.3

Standard pressure surface (mb.)	JACKSON, MISS. 1004 MB					
	Number of observations	Dynamic height	Temperature	Relative humidity	Wind Direction	Wind Speed
SURFACE	30	94	21.0	89	130	.8
1000	30	132	21.2	89	153	1.0
950	30	577	21.5	74	196	4.5
900	30	1,046	19.1	70	218	4.3
850	30	1,536	16.2	69	232	4.7
800	30	2,050	12.9	68	250	5.2
750	30	2,585	9.5	67	253	6.2
700	30	3,159	5.8	61	250	7.4
650	30	3,756	2.4	54	262	7.4
600	30	4,406	- 1.3	47	276	7.8
550	30	5,085	- 5.4	44	280	7.4
500	30	5,837	- 9.7	40	273	7.8
450	30	6,637	-14.5		284	7.0
400	30	7,527	-20.2	35	270	8.7
350	30	8,503	-27.4		265	9.9
300	30	9,595	-35.6		261	10.9
250	30	10,839	-45.2		263	14.8
200	30	12,295	-55.7		271	17.7
175	30	13,136	-60.4		276	18.1
150	30	14,089	-63.9		279	20.8
125	30	15,198	-67.2		276	15.5
100	30	16,539	-68.3		308	7.6
80	30	17,880	-67.0		43	6.2
70	29	18,694	-64.3		73	9.9
60	28	19,639	-61.7		81	12.8
50	28	20,777	-58.2		88	16.1
40	28	22,194	-54.2		92	17.7
30	28	24,054	-50.6		88	17.7
25	26	25,248	-48.7		84	17.9
20	24	26,717	-46.3		84	19.4
15	17	28,625	-43.9		87	17.3

Standard pressure surface (mb.)	JACKSONVILLE, FLA. 1016 MB					
	Number of observations	Dynamic height	Temperature	Relative humidity	Wind Direction	Wind Speed
SURFACE	30	5	23.1	93	264	.6
1000	30	146	22.9	88	217	1.7
950	30	595	21.4	78	219	4.9
900	30	1,062	18.7	74	225	3.7
850	30	1,551	15.8	71	228	3.7
800	30	2,064	12.7	69	246	4.1
750	30	2,603	9.7	67	237	5.6
700	30	3,174	6.5	65	241	7.6
650	30	3,775	3.2	59	244	7.8
600	30	4,425	- .3	55	256	8.9
550	30	5,110	- 3.8	45	260	8.5
500	30	5,865	- 8.3	41	259	10.1
450	30	6,672	-13.2	39	260	10.5
400	30	7,563	-19.2	40	256	9.9
350	30	8,543	-26.1	39	266	10.9
300	30	9,640	-34.5	35	267	13.4
250	30	10,888	-44.4		272	17.7
200	30	12,347	-55.6		271	20.4
175	30	13,187	-61.3		278	18.8
150	30	14,134	-65.1		283	18.1
125	30	15,236	-67.9		303	13.2
100	30	16,575	-68.7		331	5.4
80	29	17,915	-66.4		55	8.9
70	29	18,736	-63.3		71	11.3
60	29	19,683	-60.2		83	16.9
50	29	20,829	-56.4		88	19.0
40	29	22,256	-53.0		94	21.6
30	29	24,125	-48.9		93	21.8
25	29	25,328	-46.7		87	22.0
20	27	26,817	-44.5		82	23.5
15	23	28,758	-41.2		85	29.0
10	17	31,542	-35.0		97	28.8
7	7	34,034	-30.7			

Standard pressure surface (mb.)	KING SALMON, ALASKA 1012 MB					
	Number of observations	Dynamic height	Temperature	Relative humidity	Wind Direction	Wind Speed
SURFACE	30	15	7.0	89	202	6.0
1000	30	111	7.3	85	210	7.0
950	30	532	8.0	74	260	5.2
900	30	980	6.1	73	290	4.5
850	30	1,446	3.4	72	276	4.3
800	30	1,936	.8	72	279	5.1
750	30	2,449	- 2.0	70	285	5.1
700	30	2,999	- 4.9	64	306	6.4
650	30	3,573	- 8.0	58	313	8.2
600	30	4,197	-11.7	54	318	7.8
550	30	4,854	-15.6	50	318	9.3
500	30	5,572	-19.9	43	309	9.7
450	30	6,340	-25.4	37	311	10.5
400	30	7,191	-31.6	39	320	12.8
350	30	8,123	-38.1		318	15.7
300	30	9,169	-44.9		321	18.7
250	30	10,373	-50.1		317	22.3
200	30	11,821	-51.8		326	19.8
175	30	12,689	-50.9		325	16.1
150	30	13,694	-50.5		326	12.8
125	30	14,881	-51.3		330	8.7
100	30	16,329	-51.4		339	6.2
80	30	17,782	-50.7		10	4.5
70	30	18,649	-50.6		49	3.7
60	30	19,658	-50.6		68	5.1
50	30	20,848	-50.1		74	7.8
40	30	22,309	-49.5		81	9.9
30	30	24,200	-48.0		83	12.8
25	30	25,407	-46.7		85	14.8
20	28	26,889	-44.6		86	17.1
15	25	28,832	-41.8		85	19.6
10	7	31,583	-37.7			

Standard pressure surface (mb.)	KOTZEBUE, ALASKA 1012 MB					
	Number of observations	Dynamic height	Temperature	Relative humidity	Wind Direction	Wind Speed
SURFACE	30	5	4.8	92	271	2.1
1000	30	106	6.8	86	280	2.9
950	30	525	6.5	76	261	2.3
900	30	970	4.3	74	239	2.5
850	30	1,434	1.9	71	236	2.1
800	30	1,920	- .4	68	195	3.1
750	30	2,432	- 3.1	65	218	4.5
700	30	2,978	- 6.1	61	217	5.4
650	30	3,548	- 9.2	56	218	6.0
600	30	4,169	-12.8	55	229	5.8
550	30	4,822	-16.7	53	252	6.8
500	30	5,537	-21.3	50	269	7.4
450	30	6,298	-26.7	47	274	9.5
400	30	7,146	-32.8	45	282	12.4
350	30	8,073	-39.8		291	16.1
300	30	9,111	-46.3		291	17.5
250	30	10,309	-50.2		293	20.4
200	30	11,764	-50.0		292	17.9
175	30	12,639	-48.6		289	14.2
150	30	13,653	-48.4		286	10.1
125	30	14,852	-48.7		291	7.4
100	30	16,319	-48.4		302	3.5
80	30	17,788	-47.9		339	1.6
70	30	18,673	-47.4		62	2.9
60	30	19,689	-47.1		86	4.7
50	30	20,896	-46.8		79	6.6
40	30	22,376	-46.3		84	8.7
30	30	24,290	-45.1		80	11.7
25	28	25,513	-43.2		84	13.6
20	25	27,016	-41.0		82	18.1
15	22	28,977	-38.1		82	20.2
10	8	31,773	-34.1			

Standard pressure surface (mb.)	LAKE CHARLES, LA. 1015 MB					
	Number of observations	Dynamic height	Temperature	Relative humidity	Wind Direction	Wind Speed
SURFACE	29	5	22.7	98	100	2.1
1000	29	133	24.5	86	145	3.5
950	29	587	22.4	81	186	7.6
900	29	1,053	19.5	77	180	8.0
850	29	1,544	16.7	72	187	6.4
800	29	2,059	13.8	64	207	5.1
750	29	2,602	10.7	57	226	4.1
700	29	3,172	7.4	50	271	4.7
650	29	3,781	3.4	52	290	5.1
600	29	4,424	- .5	44	286	4.1
550	29	5,110	- 4.3	37	292	6.6
500	29	5,860	- 9.1	36	294	6.8
450	29	6,671	-13.9		296	8.2
400	29	7,554	-19.7		301	11.9
350	29	8,532	-26.7		298	12.2
300	29	9,626	-34.7		299	14.6
250	29	10,875	-44.3		295	16.5
200	29	12,336	-54.5		286	19.2
175	28	13,185	-59.8		286	21.2
150	28	14,137	-64.5		288	18.3
125	28	15,242	-68.1		286	12.2
100	27	16,572	-70.6		353	6.6
80	27	17,901	-68.3		69	11.5
70	27	18,716	-65.6		78	14.6
60	27	19,653	-62.5		84	18.5
50	27	20,790	-58.0		91	22.5
40	26	22,208	-54.5		94	22.3
30	25	24,065	-50.7		87	24.1
25	21	25,266	-48.9		89	24.1
20	20	26,740	-46.8		87	22.5
15	15	28,654	-44.1		84	26.6

Standard pressure surface (mb.)	LANDER, WYO. 829 MB					
	Number of observations	Dynamic height	Temperature	Relative humidity	Wind Direction	Wind Speed
SURFACE	30	1,696	10.1	63	249	3.5
1000	30	106				
950	30	543				
900	30	1,002				
850	30	1,489				
800	30	1,997	12.1	48	252	3.3
750	30	2,531	9.5	46	258	3.1
700	30	3,105	6.1	44	249	6.2
650	30	3,700	1.6	45	252	8.5
600	30	4,347	- 3.4	46	254	13.8
550	30	5,020	- 8.4	43	257	17.3
500	30	5,762	-13.9	40	261	18.5
450	30	6,547	-19.6		255	19.4
400	30	7,419	-25.9		255	20.6
350	30	8,372	-33.2		250	23.9
300	30	9,437	-41.4		249	26.6
250	30	10,652	-50.2		252	31.9
200	30	12,086	-56.6		251	31.1
175	30	12,932	-57.2		253	30.5
150	29	13,910	-56.2		253	27.6
125	29	15,068	-57.0		250	19.6
100	29	16,472	-58.5		243	11.5
80	29	17,879	-58.3		224	5.6
70	29	18,722	-57.5		198	3.3
60	29	19,695	-56.7		127	2.7
50	29	20,855	-54.9		89	6.0
40	28	22,285	-52.7		79	10.7
30	28	24,153	-49.7		80	12.2
25	26	25,343	-48.0		83	14.2
20	22	26,821	-45.5		92	14.6
15	7	28,802	-42.0			

Standard pressure surface (mb.)	LAS VEGAS, NEV. 934 MB					
	Number of observations	Dynamic height	Temperature	Relative humidity	Wind Direction	Wind Speed
SURFACE	30	660	22.0	23	224	5.8
1000	30	57				
950	30	506				
900	30	982	24.3	22	219	6.4
850	30	1,479	21.3	23	237	6.2
800	30	1,999	17.4	24	233	5.8
750	30	2,541	13.1	27	211	5.2
700	30	3,121	8.3	31	189	7.2
650	30	3,722	3.5	32	190	7.2
600	30	4,372	- 1.4	31	202	7.0
550	30	5,052	- 6.2		237	8.2
500	30	5,798	-11.1		265	10.1
450	30	6,589	-17.2		269	11.5
400	30	7,471	-23.8		269	16.9
350	30	8,431	-31.2		266	20.0
300	30	9,505	-39.5		266	25.3
250	30	10,729	-48.8		266	30.1
200	30	12,168	-56.9		262	34.2
175	30	13,008	-59.2		262	37.5
150	30	13,971	-60.4		258	36.9
125	30	15,102	-62.0		256	28.0
100	29	16,479	-63.7		251	16.3
80	28	17,855	-62.5		216	4.7
70	27	18,689	-61.3		138	3.3
60	27	19,644	-59.2		98	7.0
50	26	20,795	-56.9		88	10.7
40	25	22,217	-54.1		84	12.2
30	25	24,075	-50.8		87	14.2
25	23	25,273	-48.7		84	13.8
20	22	26,748	-45.8		80	15.5
15	14	28,659	-42.6			

Standard pressure surface (mb.)	LIHUE, HAWAII 1014 MB					
	Number of observations	Dynamic height	Temperature	Relative humidity	Wind Direction	Wind Speed
SURFACE	30	36	23.6	78	68	6.4
1000	30	154	22.8	78	73	9.3
950	30	601	19.3	81	86	11.3
900	30	1,063	15.8	83	86	9.9
850	30	1,547	12.4	79	91	9.1
800	30	2,056	12.1	54	100	9.9
750	30	2,595	10.4	43	107	8.4
700	30	3,167	7.5	35	110	7.0
650	30	3,769	4.1		110	4.9
600	30	4,420	.7		95	1.2
550	30	5,109	- 3.7		255	3.3
500	30	5,860	- 8.4		267	6.2
450	30	6,666	-13.9	32	270	10.3
400	30	7,554	-20.4		272	14.2
350	30	8,528	-27.7		271	17.1
300	30	9,618	-36.2		273	20.4
250	30	10,856	-46.1		273	25.1
200	29	12,307	-57.3		273	31.3
175	28	13,140	-62.6		266	35.8
150	28	14,078	-67.7		265	34.2
125	26	15,164	-71.6		257	27.0
100	26	16,479	-71.1		250	16.3
80	26	17,809	-67.9		126	5.2
70	26	18,614	-66.0		90	12.8
60	25	19,553	-62.8		91	19.4
50	24	20,684	-60.1		90	25.8
40	23	22,091	-56.4		90	29.3
30	22	23,934	-52.8		86	31.9
25	22	25,116	-51.0		87	33.8
20	21	26,578	-48.7		87	36.1
15	20	28,483	-45.4		89	36.3
10	19	31,206	-41.7		88	40.6
7	15	33,635	-39.5		88	43.9
5	10	35,966	-36.6			

See reference note at end of table

RAWINSONDE DATA

Average monthly values

JUNE 1962

Standard pressure surface (mb)	LITTLE ROCK, ARK. 1006 MB						MCGRATH, ALASKA 1000 MB						MAJURA, MARSHALL IS. 1010 MB						MEDFORD, OREG. 970 MB						MIAMI, FLA. 1016 MB					
					Wind						Wind						Wind						Wind						Wind	
	Number of observations	Dynamic height	Temperature	Relative humidity	Direction	Speed	Number of observations	Dynamic height	Temperature	Relative humidity	Direction	Speed	Number of observations	Dynamic height	Temperature	Relative humidity	Direction	Speed	Number of observations	Dynamic height	Temperature	Relative humidity	Direction	Speed	Number of observations	Dynamic height	Temperature	Relative humidity	Direction	Speed
SURFACE	30	79	20.3	91	198	.8	30	103	9.6	78	247	1.7	30	3	26.9	81	71	5.8	30	401	8.9	79	279	.6	30	4	24.0	89	155	.8
1000	30	129	20.6	89	209	2.5	30	106	13.8		303	3.5	30	95	26.3	81	70	7.4	30	148					30	143	24.5	81	180	1.9
950	30	576	20.8	74	209	6.0	30	535	9.6	61	296	3.1	30	544	23.2	80	78	10.3	30	580	12.2	66	281	3.1	30	594	21.9	80	178	5.8
900	30	1,041	18.1	73	229	6.8	30	981	6.7	62	248	3.1	30	1,019	20.4	78	85	11.5	30	1,031	11.3	63	300	2.1	30	1,061	19.0	79	187	5.8
850	30	1,530	15.0	72	238	7.4	30	1,448	3.6	66	207	3.9	30	1,512	17.6	76	87	11.7	30	1,507	9.4	61	311	1.6	30	1,552	16.1	75	200	4.1
800	30	2,042	12.2	63	241	7.8	30	1,937	.5	67	196	3.9	30	2,030	15.1	73	85	11.3	30	2,008	7.8	49	62	5.2	30	2,066	13.3	70	199	3.9
750	30	2,579	9.6	54	253	6.6	30	2,449	- 2.7	65	202	3.7	30	2,576	12.3	73	89	11.9	30	2,534	5.4	34	284	4.7	30	2,602	10.3	67	201	4.1
700	30	3,152	6.3	50	267	5.2	30	2,997	- 5.5	59	213	2.5	30	3,152	9.5	69	85	12.6	30	3,100	2.3	33	269	8.2	30	3,180	7.3	66	208	4.1
650	30	3,752	2.7	46	260	5.6	30	3,568	- 8.7	56	281	2.9	30	3,764	6.0	66	82	14.4	30	3,693	- .9	27	276	10.1	30	3,785	3.7	66	215	5.1
600	30	4,400	- 1.3	43	267	5.4	30	4,191	-12.3	53	297	2.9	30	4,417	2.3	64	85	15.0	30	4,330	- 4.9	25	271	13.4	30	4,435	.1	62	224	5.4
550	30	5,080	- 5.4	41	266	6.4	30	4,842	-16.5	55	320	3.1	30	5,111	- 1.6	59	87	13.0	30	5,003	- 9.3	27	270	17.9	30	5,122	- 3.8	53	241	4.9
500	30	5,832	- 9.8		262	6.6	30	5,561	-21.0	53	304	3.7	30	5,869	- 6.0	53	86	11.3	30	5,739	-14.4	28	271	21.2	30	5,876	- 8.1	50	263	5.6
450	30	6,632	-15.1		257	7.8	30	6,317	-26.4	51	312	6.4	30	6,686	-11.0	47	79	8.9	30	6,521	-20.4		268	23.3	30	6,683	-13.0	49	259	6.0
400	30	7,520	-21.1		261	8.4	30	7,172	-32.7	49	315	8.2	30	7,584	-16.6	45	91	6.6	30	7,393	-27.0		269	24.7	30	7,578	-18.8	47	267	8.2
350	30	8,492	-27.9		263	12.0	30	8,099	-39.3		316	11.5	30	8,574	-23.7	44	119	6.2	30	8,342	-34.2		272	27.0	30	8,560	-25.6	41	265	7.0
300	30	9,580	-36.2		277	14.8	30	9,139	-46.2		320	16.9	30	9,682	-32.0	42	148	7.0	30	9,404	-42.2		274	28.4	30	9,659	-34.0		265	7.8
250	30	10,820	-45.7		282	18.7	30	10,337	-50.4		316	15.3	30	10,942	-42.2		167	7.6	30	10,613	-50.9		273	32.6	30	10,909	-44.2		268	11.9
200	30	12,271	-56.6		285	21.8	30	11,791	-50.3		324	13.6	30	12,411	-54.7		204	6.2	30	12,040	-58.2		270	35.0	29	12,367	-55.8		282	15.7
175	30	13,107	-61.6		280	23.1	30	12,664	-49.2		319	10.9	30	13,252	-61.6		237	5.2	30	12,880	-58.5		266	31.7	29	13,205	-61.7		290	17.7
150	30	14,059	-62.8		276	20.6	30	13,675	-49.2		320	8.5	30	14,191	-68.8		259	5.8	30	13,852	-57.3		258	28.6	29	14,147	-67.5		309	14.0
125	30	15,177	-64.6		279	15.9	30	14,870	-49.7		326	5.8	30	15,263	-75.5		262	6.4	30	15,005	-57.4		251	23.3	29	15,235	-70.8		321	8.5
100	30	16,533	-66.7		290	8.7	30	16,331	-49.6		318	1.6	29	16,544	-78.4		260	7.8	30	16,414	-57.5		247	14.4	29	16,556	-71.3		24	7.6
80	29	17,884	-65.4		29	4.3	30	17,794	-48.9		25	1.0	29	17,830	-73.5		279	6.2	30	17,821	-57.5		236	7.2	28	17,882	-68.4		68	12.2
70	29	18,704	-62.9		62	5.8	30	18,671	-48.6		86	2.5	29	18,616	-70.4		288	3.7	30	18,667	-57.2		196	2.7	28	18,695	-65.8		75	17.3
60	29	19,658	-59.7		82	9.9	29	19,690	-48.1		93	5.1	27	19,538	-67.1		340	2.1	30	19,641	-56.3		109	2.1	28	19,633	-61.9		85	21.6
50	29	20,807	-56.6		93	12.2	29	20,893	-47.6		96	5.6	26	20,649	-63.3		70	9.1	30	20,802	-55.0		92	5.4	28	20,769	-58.4		92	26.4
40	27	22,232	-53.2		96	12.6	29	22,369	-46.9		90	7.8	26	22,035	-59.2		88	24.3	30	22,231	-53.9		77	6.4	28	22,187	-54.0		97	28.4
30	27	24,096	-50.9		86	15.0	28	24,290	-45.5		86	10.9	25	23,850	-55.6		85	47.0	30	24,086	-51.7		87	9.5	27	24,048	-49.9		93	29.1
25	25	25,287	-48.7		88	15.2	28	25,509	-44.0		89	12.2	22	25,018	-53.6		89	58.7	30	25,273	-49.8		86	9.3	26	25,247	-47.2		89	28.4
20	23	26,766	-45.6		87	15.5	26	27,009	-42.0		95	14.6	21	26,466	-50.1		91	64.1	30	26,742	-47.1		82	12.2	25	26,729	-45.1		84	30.1
15	18	28,691	-43.7		80	17.7	20	28,952	-38.7		91	17.1	20	28,359	-47.0		89	69.0	30	28,657	-44.6		85	13.2	24	28,663	-42.4		83	35.2
10	11	31,443	-38.7										16	31,079	-42.5		88	73.1	30	31,404	-38.9		87	14.0	22	31,437	-36.5		91	37.7
													15	33,523	-38.0		86	66.3	29	33,875	-34.6		84	17.7	10	33,913	-31.6			
													10	35,860	-34.7				27	36,245	-30.8		84	23.3						

Standard pressure surface (mb)	MIDLAND, TEXAS 914 MB						MONTGOMERY, ALA. 1009 MB						NANTUCKET, MASS. 1015 MB						NASHVILLE, TENN. 996 MB						N. Y. INT. AP. IDLEWILD 1017 MB					
					Wind						Wind						Wind						Wind						Wind	
	Number of observations	Dynamic height	Temperature	Relative humidity	Direction	Speed	Number of observations	Dynamic height	Temperature	Relative humidity	Direction	Speed	Number of observations	Dynamic height	Temperature	Relative humidity	Direction	Speed	Number of observations	Dynamic height	Temperature	Relative humidity	Direction	Speed	Number of observations	Dynamic height	Temperature	Relative humidity	Direction	Speed
SURFACE	29	874	19.9	76	124	5.8	30	61	21.3	92	69	1.2	30	14	15.9	89	255	3.5	30	177	19.0	93	131	.8	30	5	19.2	79	311	3.5
1000	29	88					30	141	21.4	88	81	1.7	30	142	16.2	80	263	5.1	30	139					30	148	18.4	73	317	5.4
950	29	538					30	588	21.5	75	167	2.1	30	580	16.3	67	281	7.8	30	582	19.9	74	233	4.3	30	585	16.8	65	324	5.6
900	29	1,008	20.1	72	142	9.7	30	1,057	19.0	74	237	4.3	30	1,038	14.4	62	280	8.5	30	1,048	17.5	73	247	6.0	30	1,047	14.8	64	306	6.8
850	29	1,501	18.4	70	176	19.2	30	1,546	16.0	74	237	5.4	30	1,520	11.8	62	278	10.7	30	1,535	14.4	73	255	6.4	30	1,529	12.0	60	297	9.1
800	29	2,020	17.1	55	193	14.0	30	2,060	12.7	71	236	6.6	30	2,025	9.5	49	278	14.0	30	2,046	11.8	65	264	5.1	30	2,035	9.6	46	285	11.9
750	29	2,567	14.6	42	187	5.4	30	2,597	9.4	67	246	7.6	30	2,556	6.8	49	275	16.5	30	2,583	8.8	63	265	5.4	30	2,566	6.9	43	282	14.0
700	29	3,149	10.8	38	213	1.7	30	3,169	6.0	59	255	6.8	30	3,123	4.1	41	276	19.4	30	3,153	5.6	56	267	5.8	30	3,133	4.3		281	16.3
650	29	3,756	6.1	38	284	2.3	30	3,773	2.8	51	259	7.4	30	3,717	.6	42	275	22.2	30	3,753	2.2	51	262	5.2	30	3,728	1.2		280	18.8
600	29	4,411	.9	42	286	4.3	30	4,417	- .9	43	263	8.2	30	4,361	- 2.9	37	273	24.5	30	4,398	- 1.6	44	270	5.8	30	4,372	- 2.4		279	20.4
550	29	5,093	- 4.6	40	273	8.4	30	5,102	- 4.6	37	257	8.4	30	5,040	- 6.9		272	27.6	30	5,079	- 5.2	37	260	7.4	30	5,050	- 6.5		273	22.2
500	29	5,846	- 9.8	37	273	13.8	30	5,852	- 9.0	35	259	6.8	30	5,784	-11.1		274	31.9	30	5,829	- 9.7		261	9.1	30	5,796	-11.3		275	24.1
450	29	6,646	-15.1	29	278	16.3	30	6,659	-14.3	33	263	6.2	30	6,578	-16.4		270	33.0	30	6,632	-15.0		272	10.1	30	6,592	-16.7		270	24.9
400	29	7,533	-20.7		276	21.6	30	7,546	-19.9	32	262	6.8	30	7,461	-22.5		269	35.2	30	7,516	-20.8		272	11.9	30	7,471	-22.9		268	28.0
350	29	8,505	-28.1		267	24.5	30	8,523	-26.8		264	9.3	30	8,429	-29.6		269	36.5	30	8,490	-27.8		272	14.0	30	8,436	-29.8		270	31.9
300	29	9,593	-36.3		267	29.3	30	9,617	-35.2		272	12.8	30	9,510	-38.0		268	41.0	30	9,579	-36.1		274	16.9	30	9,517	-38.2		271	35.4
250	29	10,831	-45.7		265	33.0	30	10,862	-45.2		273	15.9	30	10,741	-47.7		267	43.7	30	10,820	-45.5		274	22.3	30	10,746	-48.0		273	38.5
200	29	12,284	-55.2		273	39.6	30	12,316	-56.2		279	20.4	30	12,180	-58.1		272	44.5	30	12,271	-56.7		275	28.0	30	12,182	-58.5		274	46.6
175	29	13,128	-59.5		273	41.0	30	13,154	-61.4		276	22.7	30	13,014	-61.8		274	40.8	30	13,109	-61.3		282	27.4	30	13,013	-62.6		275	45.9
150	29	14,084	-63.1		268	37.1	30	14,101	-64.9		284	20.4	30	13,967	-61.9		268	34.6	30	14,059	-63.7		279	25.5	30	13,963	-62.3		273	35.9
125	29	15,195	-67.0		264	23.5	29	15,206	-67.7		289	16.1	30	15,098	-60.9		272	29.0	30	15,176	-64.6		284	19.0	30	15,092	-61.8		276	27.4
100	29	16,536	-68.1		273	11.1	29	16,547	-68.1		329	7.2	30	16,485	-60.9		282	19.2	30	16,535	-65.7		292	13.4	29	16,475	-61.7		281	18.7
80	29	17,878	-66.9		88	6.2	29	17,891	-66.2		54	6.8	29	17,877	-59.0		290	8.9	30	17,894	-64.7		355	4.7	29	17,859	-60.4		295	9.9
70	29	18,695	-64.5		92	11.7	29	18,713	-64.2		67	10.1	28	18,721	-57.5		300	4.7	30	18,721	-63.1		23	5.4	29	18,701	-58.8		307	4.9
60	29	19,639	-60.8		96	14.8	29	19,656	-60.7		76	12.6	28	19,696	-55.7		27	3.3	30	19,667	-60.2		64	9.1	29	19,666	-56.7		2	1.7
50	29	20,782	-57.3		93	17.7	29	20,800	-57.3		83	16.9	28	20,863	-53.5		83	6.8	30	20,814	-56.8		78	9.9	29	20,827	-54.7		67	4.7
40	29	22,202	-54.5		95	18.7	29	22,223	-53.7		94	19.0	26	22,305	-51.6		91	10.7	30	22,239	-53.7		88	11.9	29	22,260	-52.9		85	7.6
30	27	24,049	-51.1		87	20.0	28	24,090	-50.1		89	18.8	26	24,182	-49.1		87	12.2	28	24,098	-50.5		86	12.2	29	24,126	-50.0		84	9.3
25	26	25,242	-48.4		87	20.4	28	25,288	-47.9		86	20.4	25	25,386	-47.3		86	14.2	28	25,292	-48.7		83	12.2	28	25,320	-48.2		83	11.1
20	26	26,718	-46.0		81	22.3	25	26,773	-46.1		85	23.1	25	26,872	-44.3		85	15.2	27	26,769	-46.7		84	13.0	26	26,792	-46.1		90	9.3
15	25	28,644	-43.3		85	23.1	16	28,713	-42.8		84	26.4	23	28,814	-40.4		93	16.9	24	28,694	-43.6		85	13.8	15	28,685	-43.7			
10	22	31,413	-37.9		90	28.6							19	31,620	-33.8		92	19.4	21	31,432	-39.4		91	15.3						
7	17	33,898	-32.8		94	31.1							5	34,112					21	33,895	-35.4		85	18.8						
5	11	36,236	-30.1																19	36,258	-31.5									

Standard pressure surface (mb)	NOME, ALASKA 1013 MB						NORFOLK, VA. 1016 MB						NORTH PLATTE, NEBR. 917 MB						OAKLAND, CALIF. 1013 MB						OKLAHOMA CITY, OKLA. 969 MB					
					Wind						Wind						Wind						Wind						Wind	
	Number of observations	Dynamic height	Temperature	Relative humidity	Direction	Speed	Number of observations	Dynamic height	Temperature	Relative humidity	Direction	Speed	Number of observations	Dynamic height	Temperature	Relative humidity	Direction	Speed	Number of observations	Dynamic height	Temperature	Relative humidity	Direction	Speed	Number of observations	Dynamic height	Temperature	Relative humidity	Direction	Speed
SURFACE	30	7	3.7	91	321	2.5	30	9	19.9	85	226	1.0	30	848	14.5	87	84	1.6	30	6	12.7	80	274	3.5	30	392	19.3	91	152	3.7
1000	30	113	6.4	80	305	4.3	30	148	20.1	81	257	2.1	30	109					30	111	12.2	81	257	3.9	30	122				
950	30	537	5.8	72	278	2.1	30	590	18.6	73	278	4.3	30	548					30	547	13.2	69	245	6.2	30	568	20.1	78	179	5.1
900	30	976	4.5	67	276	3.7	30	1,054	16.2	70	287	2.7	30	1,008	14.7	82	102	2.3	30	1,001	17.4	37	294	7.2	30	1,033	19.1	67	210	9.5
850	30	1,440	2.6	65	274	5.1	30	1,538	13.4	67	275	3.5	30	1,492	14.3	71	158	4.3	30	1,488	16.2	27	313	5.4	30	1,523	16.6	63	230	8.5
800	30	1,928	.2	61	255	5.1	30	2,047	10.9	60	263	5.2	30	2,003	12.4	68	205	6.4	30	2,000	13.2		299	4.1	30	2,038	13.6	63	227	8.4
750	30	2,444	- 2.4	60	245	5.4	30	2,581	8.6	52	262	6.8	30	2,542	9.5	61	232	6.6	30	2,539	10.1		282	4.7	30	2,577	10.4	59	238	7.6
700	30	2,989	- 5.2	54	251	6.6	30	3,152	5.6	50	264	8.4	30	3,113	6.1	58	254	9.1	30	3,110	6.5		272	6.2	30	3,151	6.6	57	253	7.2
650	30	3,564	- 8.3	50	254	6.8	30	3,750	2.5	47	256	9.7	30	3,711	1.9	55	254	10.5	30	3,711	2.7		278	6.8	30	3,751	2.6	58	258	7.6
600	30	4,182	-11.4	43	259	7.8	30	4,399	- 1.3	44	255	11.5	30	4,357	- 2.3	53	264	12.4	30	4,356	- 1.4		287	8.7	30	4,398	- 1.6	55	259	7.8
550	30	4,843	-15.4	45	275	8.4	30	5,078	- 5.4	41	252	12.4	30	5,037	- 7.0	50	267	14.0	30	5,040	- 6.3		281	11.7	30	5,079	- 5.7	52	251	7.8
500	30	5,562	-20.1	44	291	9.3	30	5,829	-10.1		252	12.4	30	5,780	-12.0	45	268	15.9	30	5,782	-11.4		275	12.8	30	5,828	-10.2	47	258	11.7
450	30	6,326	-25.6	46	297	8.4	30	6,628	-15.4		253	14.4	30	6,573	-17.4	41	263	17.1	30	6,573	-17.5		272	14.0	30	6,630	-15.4	42	268	10.9
400	30	7,179	-31.6	43	296	11.5	30	7,514	-21.2		254	15.9	30	7,451	-23.7	40	255	17.1	30	7,453	-24.5		270	17.9	30	7,513	-21.2	40	264	14.4
350	30	8,110	-38.4		299	10.7	30	8,486	-28.5		257	17.9	30	8,413	-30.8		249	19.0	30	8,412	-31.9		269	21.2	30	8,484	-28.5		255	16.9
300	30	9,154	-45.2		293	13.6	30	9,571	-36.9		256	21.8	30	9,488	-39.3		244	23.5	30	9,484	-40.1		269	24.3	30	9,570	-36.8		258	18.5
250	30	10,359	-49.5		293	15.7	30	10,806	-46.7		259	24.9	30	10,711	-48.9		239	27.2	30	10,705	-49.3		272	29.7	30	10,806	-46.6		258	21.2
200	30	11,816	-50.5		298	16.1	30	12,249	-57.8		267	27.6	30	12,145	-58.3		240	36.9	30	12,139	-58.3		268	35.4	30	12,250	-57.2		257	28.2
175	30	12,689	-49.5		301	13.4	30	13,081	-62.5		272	29.3	30	12,979	-60.1		245	38.3	30	12,975	-60.4		265	35.6	30	13,088	-60.2		260	30.5
150	30	13,699	-49.4		295	10.9	30	14,024	-64.7		276	26.2	30	13,944	-58.8		260	28.8	30	13,938	-60.0		261	33.2	30	14,044	-61.8		265	28.2
125	30	14,893	-49.6		296	8.4	30	15,138	-64.4		275	22.5	30	15,088	-59.7		262	19.2	30	15,077	-60.1		258	29.0	30	15,166	-64.3		270	19.2
100	30	16,352	-49.8		301	3.3	30	16,500	-64.7		289	13.0	30	16,476	-61.3		247	12.0	30	16,465	-61.2		261	17.1	29	16,523	-65.5		259	8.7
80	30	17,813	-49.1		35	1.0	29	17,870	-62.4		330	5.2	30	17,860	-61.3		264	2.7	30	17,852	-60.6		230	6.6	29	17,882	-65.2		37	.8
70	30	18,693	-48.5		67	2.5	29	18,704	-60.4		48	4.5	30	18,696	-60.1		303	1.4	30	18,690	-59.4		188	2.1	29	18,702	-62.6		70	5.2
60	30	19,704	-48.1		81	4.3	29	19,664	-57.7		76	6.8	30	19,658	-57.8		56	4.1	30	19,654	-57.9		100	5.2	29	19,659	-60.0		88	8.9
50	29	20,906	-47.6		88	7.8	29	20,821	-55.0		82	9.7	30	20,815	-55.0		80	6.6	30	20,808	-56.3		92	9.1	29	20,808	-56.9		92	13.0
40	29	22,280	-47.2		92	9.3	29	22,256	-52.0		89	12.6	30	22,248	-53.0		82	8.0	30	22,231	-54.6		83	11.9	28	22,237	-54.2		87	12.6
30	29	24,287	-46.0		87	11.1	29	24,134	-48.6		89	13.6	30	24,111	-51.0		89	8.9	30	24,083	-51.7		85	12.8	28	24,099	-51.1		83	16.7
25	28	25,514	-44.4		87	13.8	28	25,338	-46.7		86	11.9	30	25,303	-48.9		93	9.7	30	25,271	-49.8		84	13.4	26	25,294	-48.9		88	15.2
20	28	27,015	-42.1		85	16.5	25	26,820	-44.5		89	14.0	30	26,777	-46.5		87	11.5	29	26,743	-47.7		79	13.6	20	26,759	-46.6		81	13.4
15	27	28,972	-39.0		91	20.4	14	28,748	-41.4		95	15.7	28	28,704	-43.1		89	12.6	29	28,649	-44.5		80	12.8	7	28,671	-44.4			
10	12	31,785	-35.5										27	31,473	-36.9		89	14.2	25	31,386	-39.5		81	14.8						
													22	33,963	-33.5		89	16.5	24	33,850	-32.2		86	16.1						
													18	36,302	-28.5				17	36,201	-32.2									

See reference note at end of table

RAWINSONDE DATA

Average monthly values

OLYMPIA, WASH.
1011 MB

Standard pressure surface (mb.)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind	
					Direction	Speed
SURFACE	27	58	8.5	85	220	2.7
1000	27	152	9.9	79	198	3.3
950	27	582	9.7	71	172	.8
900	27	1,026	7.9	67	252	2.9
850	27	1,496	5.9	61	320	4.5
800	27	1,989	3.3	53	272	7.0
750	27	2,511	1.0	47	269	9.5
700	27	3,063	-2.0	42	271	12.0
650	26	3,648	-5.2	36	268	15.5
600	26	4,271	-8.9		264	17.9
550	26	4,937	-13.0		265	21.0
500	26	5,659	-17.9	37	261	23.5
450	26	6,434	-23.5	40	260	26.6
400	26	7,289	-29.9	39	262	31.3
350	26	8,227	-36.8		261	32.4
300	26	9,277	-44.1		261	36.7
250	26	10,479	-51.4		264	36.9
200	26	11,908	-56.1		260	36.1
175	26	12,758	-55.4		255	30.9
150	26	13,744	-54.2		251	25.6
125	26	14,913	-54.4		241	20.0
100	26	16,341	-54.8		234	15.0
80	26	17,769	-54.5		225	9.3
70	26	18,629	-54.7		207	4.7
60	26	19,611	-54.5		193	2.3
50	26	20,781	-53.7		148	3.1
40	26	22,219	-52.5		92	6.2
30	26	24,087	-50.4		79	7.6
25	25	25,284	-48.7		83	9.9
20	22	26,761	-46.7		80	12.0
15	16	28,662	-43.3		94	16.9
10	8	31,367	-36.8			

OMAHA, NEBR.
968 MB

Standard pressure surface (mb.)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind	
					Direction	Speed
SURFACE	30	403	16.5	89	121	2.3
1000	30	120				
950	30	563	17.5	78	152	4.1
900	30	1,023	16.5	68	212	8.2
850	30	1,509	14.6	60	227	9.1
800	30	2,020	12.0	55	247	7.6
750	30	2,553	8.8	53	248	8.9
700	30	3,125	5.3	49	249	9.7
650	30	3,720	1.5	41	246	10.9
600	30	4,367	-2.7	38	250	10.9
550	30	5,042	-7.2	34	256	11.7
500	30	5,789	-11.6		250	13.6
450	30	6,579	-17.0		249	15.0
400	30	7,463	-23.4		255	16.3
350	30	8,426	-30.4		268	19.0
300	30	9,503	-38.6		265	24.5
250	30	10,730	-48.4		259	34.2
200	30	12,164	-58.7		261	39.4
175	30	12,996	-61.5		262	37.3
150	30	13,953	-60.7		261	27.4
125	30	15,089	-60.7		260	21.2
100	29	16,476	-62.0		265	16.5
80	29	17,856	-61.7		285	6.4
70	29	18,691	-61.1		333	1.9
60	29	19,647	-58.9		30	3.3
50	29	20,798	-56.5		73	5.2
40	29	22,223	-53.5		79	6.2
30	28	24,085	-51.0		88	6.2
25	26	25,269	-49.5		93	6.8
20	19	26,717	-47.2		91	7.0

PEORIA, ILL.
993 MB

Standard pressure surface (mb.)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind	
					Direction	Speed
SURFACE	29	200	16.2	82	82	2.1
1000	29	139				
950	29	582	18.6	66	201	3.3
900	29	1,043	16.5	63	242	6.0
850	29	1,528	13.7	62	254	8.5
800	29	2,037	11.1	55	257	8.9
750	29	2,570	8.1	50	259	8.7
700	29	3,139	4.7	44	262	9.9
650	29	3,737	1.8		264	9.5
600	29	4,383	-1.7		265	6.9
550	29	5,063	-6.0		265	10.7
500	29	5,810	-10.6		273	12.2
450	29	6,604	-16.0		271	14.0
400	29	7,489	-22.4		273	16.3
350	29	8,456	-29.6		275	18.7
300	29	9,537	-38.1		281	22.0
250	29	10,767	-47.3		284	29.9
200	29	12,210	-57.2		281	38.3
175	29	13,046	-60.5		275	38.1
150	29	14,004	-61.0		275	32.3
125	28	15,141	-60.7		275	23.3
100	27	16,523	-62.1		282	17.3
80	27	17,906	-61.2		310	8.0
70	27	18,737	-60.0		340	4.9
60	27	19,706	-57.8		45	4.9
50	27	20,865	-55.0		67	8.0
40	27	22,300	-52.3		82	10.5
30	27	24,173	-49.8		85	10.7
25	26	25,373	-48.1		87	11.3
20	26	26,852	-45.8		87	11.9
15	26	28,783	-42.6		80	13.8
10	25	31,555	-37.4		88	18.1
	21	34,046	-34.0		89	18.3
	14	36,363	-30.2			

PITTSBURGH, PA.
977 MB

Standard pressure surface (mb.)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind	
					Direction	Speed
SURFACE	30	353	16.0	87		.0
1000	30	154				
950	30	593	17.0	76	225	2.9
900	30	1,053	15.0	74	271	5.2
850	30	1,535	12.2	72	280	7.6
800	30	2,042	9.4	68	283	9.9
750	30	2,573	7.2	56	280	11.1
700	30	3,140	4.4	44	275	12.4
650	30	3,737	.9	41	275	13.2
600	29	4,376	-2.7		268	15.7
550	29	5,053	-6.9		264	16.9
500	29	5,798	-11.8		270	18.1
450	29	6,590	-17.5		272	19.2
400	29	7,469	-23.6		269	23.1
350	29	8,431	-30.6		266	26.6
300	29	9,510	-38.6		263	30.7
250	28	10,744	-48.0		269	35.8
200	27	12,183	-58.4		272	41.8
175	25	13,023	-61.8		279	39.6
150	25	13,975	-62.2		281	32.4
125	25	15,104	-61.8		275	25.5
100	25	16,483	-62.5		290	18.7
80	25	17,862	-61.3		312	9.5
70	25	18,596	-59.7		359	4.9
60	25	19,662	-57.0		53	3.9
50	25	20,822	-54.5		76	6.8
40	25	22,258	-52.5		80	9.3
30	25	24,127	-49.8		86	10.7
25	24	25,323	-48.1		84	12.0
20	24	26,802	-45.2		81	14.8
15	24	28,739	-41.3		86	15.9
10	20	31,527	-35.4		96	14.8
	13	34,039	-31.1		92	16.1

POINT ARGUELLO, CALIF.
1000 MB

Standard pressure surface (mb.)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind	
					Direction	Speed
SURFACE	30	113	10.4	95	316	4.1
1000	30	116	10.5	94	324	4.9
950	30	545	12.7	63	338	8.9
900	30	1,003	17.2	29	7	10.9
850	30	1,490	16.4	22	359	9.9
800	30	2,003	14.1	19	339	8.5
750	30	2,539	11.4	19	320	6.0
700	30	3,117	8.1	17	278	4.9
650	30	3,718	4.3	15	276	6.4
600	30	4,371	.5	15	285	9.3
550	30	5,053	-4.4	15	282	11.1
500	30	5,806	-9.9	14	278	14.2
450	30	6,600	-16.2	14	273	15.9
400	30	7,486	-23.1	14	270	18.3
350	30	8,449	-30.8	15	266	22.2
300	30	9,524	-39.3	14	267	25.5
250	30	10,749	-48.4		262	26.0
200	30	12,188	-56.9		263	37.7
175	30	13,028	-60.0		260	40.6
150	30	13,986	-61.5		260	41.6
125	30	15,113	-63.0		257	33.2
100	29	16,484	-64.5		257	19.0
80	29	17,851	-63.1		239	4.5
70	29	18,679	-61.9		148	2.3
60	29	19,632	-60.0		109	7.0
50	28	20,778	-57.8		93	10.9
40	28	22,196	-55.0		87	14.4
30	28	24,045	-52.1		84	17.1
25	28	25,231	-50.0		84	15.5
20	28	26,697	-47.6		86	17.1
15	27	28,615	-44.0		84	16.3
10	26	31,364	-39.1		76	15.0
	18	33,825	-34.9		95	19.0
	10	36,186	-32.3			
	6	37,800	-30.7			

PONAPE, CAROLINE IS.
1005 MB

Standard pressure surface (mb.)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind	
					Direction	Speed
SURFACE	30	39	24.9	89	103	3.1
1000	30	81	25.4	88	110	4.7
950	30	529	23.6	86	84	9.5
900	30	1,006	20.6	84	81	10.9
850	30	1,500	18.1	80	84	10.5
800	30	2,018	15.5	76	86	9.9
750	30	2,562	12.5	69	88	10.5
700	30	3,142	9.5	62	90	11.5
650	30	3,755	6.1	65	86	13.0
600	30	4,407	2.2	66	82	13.6
550	30	5,103	-1.8	63	81	13.4
500	30	5,860	-6.1	58	84	12.6
450	30	6,671	-10.8	58	81	10.7
400	30	7,575	-16.7	52	81	7.8
350	30	8,565	-23.7	48	72	6.0
300	30	9,673	-31.9	42	66	3.3
250	30	10,934	-42.0		148	1.0
200	30	12,405	-54.4		263	2.1
175	30	13,248	-61.0		277	4.9
150	30	14,190	-67.8		266	8.2
125	28	15,269	-74.1		271	8.5
100	22	16,551	-77.0		273	8.0
80	21	17,846	-72.3		286	4.1
70	21	18,637	-69.2		350	3.3
60	20	19,568	-65.6		29	3.9
50	20	20,683	-62.8		74	8.7
40	20	22,072	-59.2		87	22.0
30	20	23,889	-55.8		87	47.2
25	18	25,050	-53.0		90	59.1
20	18	26,499	-50.2		89	65.9
15	18	28,393	-46.6		89	68.6
10	16	31,131	-40.7		88	68.8
7	11	33,594	-35.8		88	65.5
5	6	35,930	-34.6			

PORTLAND, ME.
1014 MB

Standard pressure surface (mb.)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind	
					Direction	Speed
SURFACE	30	20	15.4	83	293	2.1
1000	30	137	15.4	75	296	3.5
950	30	574	15.0	64	308	6.6
900	30	1,029	12.7	62	301	7.2
850	30	1,507	9.9	62	296	9.1
800	30	2,009	7.4	54	291	10.9
750	30	2,535	4.8	46	292	15.9
700	30	3,098	1.9	43	284	17.7
650	30	3,687	-1.6	43	283	21.0
600	30	4,326	-5.1	38	279	23.9
550	30	4,996	-8.9	31	278	28.0
500	30	5,738	-13.6		280	31.3
450	30	6,521	-19.0	32	279	32.3
400	30	7,400	-25.0		279	35.8
350	30	8,357	-31.9		276	40.0
300	30	9,430	-39.5		275	44.7
250	30	10,654	-48.6		276	53.2
200	29	12,093	-57.3		275	57.3
175	29	12,931	-59.6		275	48.0
150	29	13,896	-58.8		271	37.9
125	29	15,040	-58.9		275	29.5
100	29	16,439	-59.2		279	18.1
80	29	17,843	-57.5		290	7.8
70	29	18,693	-56.6		296	3.1
60	29	19,670	-54.9		44	1.6
50	29	20,841	-53.3		88	2.9
40	29	22,284	-51.5		82	3.9
30	25	24,163	-49.4		92	6.4
25	21	25,372	-47.6		101	5.2
20	16	26,852	-45.4		91	8.2

RAPID CITY, S. DAK.
905 MB

Standard pressure surface (mb.)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind	
					Direction	Speed
SURFACE	30	966	13.4	83		.0
1000	30	110				
950	30	548				
900	30	1,008	13.8	76	195	1.9
850	30	1,492	13.6	65	247	3.1
800	30	2,001	11.5	60	224	3.5
750	30	2,534	8.4	58	250	4.5
700	30	3,104	4.8	58	261	7.8
650	30	3,699	1.0	48	262	11.7
600	30	4,343	-3.4	47	260	16.1
550	30	5,020	-7.9	43	261	16.3
500	30	5,758	-13.2	40	261	18.5
450	30	6,545	-19.0	39	257	17.9
400	30	7,419	-25.0	36	257	20.6
350	30	8,375	-32.4		253	24.5
300	30	9,442	-40.8		251	28.2
250	30	10,658	-49.9		243	31.5
200	30	12,086	-58.2		240	36.3
175	30	12,924	-58.4		250	31.7
150	30	13,899	-57.4		253	25.1
125	30	15,049	-57.9		255	19.8
100	30	16,452	-58.6		258	13.6
80	30	17,853	-58.8		248	4.9
70	29	18,694	-57.6		204	1.9
60	29	19,668	-56.7		86	2.3
50	29	20,829	-55.0		80	5.2
40	29	22,261	-53.1		73	8.5
30	27	24,125	-50.4		78	11.5
25	27	25,321	-48.6		85	13.0
20	23	26,790	-46.4		94	12.2
15	18	28,715	-42.4			

ST. CLOUD, MINN.
979 MB

Standard pressure surface (mb.)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind	
					Direction	Speed
SURFACE	30	316	13.2	91	115	1.2
1000	30	135				
950	30	573	15.1	79	164	4.9
900	30	1,026	13.7	71	214	6.2
850	30	1,507	11.1	69	238	6.2
800	30	2,011	9.0	59	252	7.0
750	30	2,543	6.4	53	259	8.4
700	30	3,106	3.4	49	263	9.3
650	30	3,702	.1	46	263	11.9
600	30	4,341	-3.6	39	260	13.4
550	30	5,018	-7.9	35	260	13.6
500	30	5,758	-12.7		265	15.0
450	30	6,547	-18.3		266	15.2
400	30	7,421	-24.6		271	17.9
350	30	8,379	-32.0		274	21.0
300	30	9,448	-40.4		272	24.3
250	30	10,666	-49.5		272	29.3
200	30	12,097	-58.2		273	34.2
175	30	12,933	-59.7		273	31.7
150	30	13,900	-57.6		277	26.2
125	30	15,051	-57.8		275	19.6
100	30	16,455	-58.8		277	15.3
80	30	17,855	-58.9		287	8.5
70	30	18,693	-58.1		313	6.0
60	30	19,670	-56.4		23	3.3
50	30	20,833	-54.5		53	5.1
40	29	22,270	-52.3		69	8.0
30	29	24,140	-50.2		75	11.1
25	28	25,335	-47.9		83	12.6
20	27	26,813	-45.2		89	15.7
15	26	28,745	-42.0		88	15.0
10	23	31,528	-36.8		87	17.7
7	12	34,048	-31.8		93	21.8
5	7	36,488	-28.3			

ST. PAUL IS., ALASKA
1015 MB

Standard pressure surface (mb.)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind	
					Direction	Speed
SURFACE	30	10	3.3	97	239	2.9
1000	30	134	4.2	89	254	4.1
950	30	554	5.0	76	225	6.4
900	30	994	4.8	64	229	5.8
850	30	1,459	3.6	57	242	8.2
800	30	1,950	1.9	56	249	7.6
750	30	2,467	.0	50	261	7.4
700	30	3,020	-2.6	47	271	8.4
650	30	3,603	-5.7	46	277	8.5
600	30	4,229	-9.3	42	271	9.1
550	30	4,890	-13.4	37	282	7.6
500	30	5,617	-18.1		277	12.4
450	30	6,388	-23.3		285	9.3
400	30	7,248	-29.3		277	11.1
350	30	8,188	-36.1		288	12.4
300	30	9,242	-43.2		285	13.6
250	30	10,451	-50.0		297	17.5
200	30	11,891	-54.9		314	13.0
175	30	12,744	-54.2		315	11.1
150	30	13,736	-53.2		308	11.7
125	29	14,896	-53.4		314	8.7
100	28	16,342	-53.5		339	3.7
80	28	17,781	-52.3		42	2.5
70	28	18,648	-51.9		81	3.1
60	28	19,645	-51.4		87	4.3
50	28	20,830	-50.7		89	6.6
40	27	22,285	-50.0		87	9.5
30	27	24,170	-48.6		98	12.8
25	26	25,382	-46.8		95	16.3
20	25	26,866	-44.3		92	19.4
15	18	28,831	-40.8		94	22.0

SALEM, OREG.
1011 MB

Standard pressure surface (mb.)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind	
					Direction	Speed
SURFACE	30	61	9.0	89	261	1.2
1000	30	154	10.8	78	324	1.4
950	30	580	10.2	72	8	5.4
900	30	1,031	8.4	69	353	5.1
850	30	1,502	6.8	59	294	4.9
800	30	1,998	5.1	43	294	6.0
750	30	2,521	2.6	41	282	8.2
700	30	3,078	-.2	35	275	11.9
650	30	3,664	-3.5	32	279	12.6
600	30	4,296	-7.2	29	277	15.7
550	30	4,960	-11.3	30	273	17.7
500	30	5,694	-16.3	32	272	19.4
450	30	6,469	-21.9		273	22.5
400	30	7,334	-28.2		276	25.6
350	30	8,279	-35.0		279	28.2
300	30	9,337	-42.9		279	30.5
250	30	10,544	-51.1		278	33.4
200	30	11,974	-56.5		269	32.8
175	30	12,822	-56.2		259	31.5
150	30	13,804	-55.5		259	26.0
125	29	14,962	-55.6		252	19.6
100	28	16,383	-55.7		245	12.6
80	28	17,806	-55.5		230	8.2
70	28	18,659	-55.5		218	4.3
60	27	19,639	-54.7		184	1.9
50	27	20,808	-54.0		93	3.1
40	27	22,243	-53.1		86	6.0
30	26	24,110	-50.9		86	8.7
25	25	25,303	-49.2		83	10.5
20	25	26,773	-46.9		78	11.1
15	23	28,691	-43.9		75	13.2
10	13	31,476	-39.5			
7	5	33,874	-36.4			

SALT LAKE CITY, UTAH
870 MB

Standard pressure surface (mb.)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind	
					Direction	Speed
SURFACE	29	1,288	13.5	59	161	6.0
1000	29	98				
950	29	533				
900	29	999				
850	29	1,490	17.1	42	152	6.6
800	29	2,005	15.0	36	165	5.1
750	29	2,545	11.3	38	199	3.9
700	29	3,120	6.9	39	262	4.9
650	29	3,721	2.3	41	266	8.0
600	29	4,366	-2.6	40	259	11.5
550	29	5,043	-7.9	42	253	14.4
500	29	5,783	-13.7	45	248	15.3
450	29	6,573	-19.7	43	244	15.3
400	29	7,441	-26.0		247	18.5
350	29	8,394	-33.4		246	20.4
300	29	9,457	-41.7		246	24.1
250	29	10,671	-49.8		249	27.0
200	29	12,106	-56.7		250	32.4
175	29	12,949	-57.9		252	32.4
150	29	13,921	-57.8		251	28.8
125	29	15,069	-59.0		250	22.3
100	29	16,464	-59.7		244	12.6
80	29	17,858	-59.5		222	5.6
70	29	18,698	-58.6		181	3.3
60	29	19,666	-57.6		115	3.3
50	29	20,821	-56.0		92	6.0
40	28	22,248	-54.0		85	7.4
30	27	24,101	-51.8		84	9.1
25	27	25,289	-49.4		85	9.7
20	27	26,759	-47.2		78	11.7
15	19	28,673	-44.6		85	13.0
10	7	31,381	-39.3			

SAN ANTONIO, TEXAS
986 MB

Standard pressure surface (mb.)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind	
					Direction	Speed
SURFACE	30	243	23.0	90	144	3.9
1000	30	115				
950	30	568	21.4	84	167	12.0
900	30	1,031	19.1	76	171	14.6
850	30	1,522	17.5	64	174	12.4
800	30	2,039	14.8	60	175	8.9
750	30	2,584	12.3	50	177	5.1
700	30	3,158	8.7	43	206	3.5
650	30	3,765	4.9	39	277	1.9
600	30	4,416	.5	41	313	2.1
550	30	5,104	-4.0	40	297	6.0
500	30	5,855	-9.0	37	288	9.9
450	30	6,663	-14.0		287	12.6
400	30	7,549	-20.1		285	15.9
350	30	8,524	-27.3		285	19.2
300	30	9,616	-35.5		282	21.0
250	30	10,860	-44.6		276	24.5
200	30	12,321	-54.5		274	30.7
175	30	13,166	-59.5		270	30.5
150	30	14,118	-65.0		273	27.4
125	29	15,220	-68.9		273	18.5
100	29	16,550	-70.3		313	4.5
80	29	17,877	-68.8		85	8.9
70	28	18,694	-65.1		87	14.4
60	28	19,630	-62.0		92	19.4
50	28	20,769	-58.3		93	20.6
40	27	22,183	-55.1		88	22.2
30	26	24,041	-51.0		85	25.8
25	26	25,234	-48.7		88	25.3
20	17	26,692	-46.7		82	22.2
15	7	28,604	-44.5			

SAN DIEGO, CALIF.
998 MB

Standard pressure surface (mb.)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind	
					Direction	Speed
SURFACE	30	124	14.5	87	288	.8
1000	30	106	15.1			
950	30	541	13.5	80	289	.6
900	30	997	16.5	46	309	2.1
850	30	1,485	17.9	27	299	5.2
800	30	2,002	15.9	23	272	5.6
750	30	2,539	12.9	21	248	5.2
700	30	3,123	8.7	22	241	5.8
650	30	3,725	4.4		247	8.2
600	30	4,380	.0		253	9.1
550	30	5,063	-4.2		276	9.9
500	30	5,817	-9.2		277	12.4
450	30	6,617	-15.1		276	14.8
400	29	7,502	-21.9		268	16.9
350	29	8,469	-29.3		267	22.0
300	29	9,553	-37.6		267	27.4
250	29	10,787	-46.8		265	35.9
200	29	12,238	-55.5		263	45.7
175	29	13,081	-59.4		265	43.3
150	29	14,039	-62.3		259	44.1
125	29	15,158	-64.7		258	30.5
100	29	16,514	-66.3		258	16.1
80	29	17,871	-64.3		213	2.7
70	29	18,691	-62.7		114	5.4
60	29	19,647	-60.0		101	10.5
50	29	20,792	-57.4		94	13.4
40	27	22,205	-54.6		84	16.5
30	27	24,062	-50.7		89	18.8
25	26	25,252	-48.9		87	18.7
20	21	26,725	-46.7		86	19.4
15	15	28,638	-43.1		95	14.0

SAN JUAN, P. R.
1016 MB

Standard pressure surface (mb.)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind	
					Direction	Speed
SURFACE	30	6	25.6	86	96	3.7
1000	30	145	25.0	84	95	12.4
950	30	593	22.2	81	101	16.3
900	30	1,064	19.3	78	105	16.5
850	30	1,555	16.3	75	106	15.3
800	30	2,069	13.9	66	102	13.8
750	30	2,604	11.3	56	108	13.2
700	30	3,185	8.0	51	110	10.9
650	30	3,782	4.5	46	105	10.1
600	30	4,441	.7	47	104	9.5
550	30	5,125	-3.5	40	101	8.4
500	30	5,882	-8.0	39	104	7.2
450	30	6,689	-12.9	36	87	3.5
400	30	7,582	-19.0	33	335	.6
350	30	8,563	-26.1	34	276	2.3
300	30	9,660	-34.5		290	4.9
250	30	10,907	-44.4		283	9.1
200	30	12,364	-56.4		281	12.8
175	30	13,200	-62.3		290	12.6
150	30	14,138	-68.2		290	14.4
125	30	15,221	-71.9		286	11.1
100	30	16,531	-72.8		316	3.5
80	30	17,846	-70.7		70	11.1
70	30	18,650	-67.8		82	17.1
60	30	19,581	-63.9		84	21.4
50	29	20,712	-59.8		90	28.0
40	29	22,120	-55.7		96	32.4
30	26	23,965	-52.1		92	36.3
25	24	25,156	-49.7		88	39.2
20	21	26,625	-47.6		86	42.6
15	19	28,547	-43.2		91	48.4
10	10	31,301	-38.3			
7	7	33,740	-36.5			

See reference note at end of table

RAWINSONDE DATA

Average monthly values

SANTA MONICA, CALIF.
1[illegible] MB

Standard pressure surface (mb)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind Direction	Wind Speed
SURFACE	30	38	14.4	88		.0
1000	30	111	14.0	88	220	.6
950	30	549	13.7	78	82	1.6
900	30	1,003	16.6	53	21	4.1
850	30	1,490	16.9	33	323	5.6
800	30	2,005	14.9	28	288	5.6
750	30	2,546	12.2	25	267	5.4
700	30	3,123	8.6		241	4.5
650	30	3,728	4.5		244	5.4
600	30	4,378	.6		266	8.2
550	30	5,060	- 4.3		275	9.9
500	30	5,814	- 9.9		260	11.7
450	30	6,511	-15.9		276	13.6
400	30	7,494	-22.9		272	16.7
350	30	8,459	-30.3		264	20.2
300	30	9,536	-38.8		265	24.5
250	30	10,762	-48.2		264	32.1
200	29	12,208	-56.3		263	42.0
175	29	13,048	-59.7		259	45.1
150	29	14,006	-61.8		258	42.6
125	29	15,128	-64.3		257	31.9
100	29	16,486	-65.4		258	17.3
80	29	17,847	-64.2		223	2.9
70	29	18,669	-62.3		122	4.5
60	28	19,525	-60.3		102	7.8
50	29	20,768	-57.8		94	12.2
40	27	22,186	-55.1		87	15.0
30	27	24,038	-51.6		85	18.1
25	27	25,226	-49.8		87	16.3
20	25	26,689	-47.8		86	15.9
15	20	28,588	-44.8		93	14.4
10	9	31,343	-40.7			

SAULT STE. MARIE, MICH.
991 MB

Standard pressure surface (mb)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind Direction	Wind Speed
SURFACE	30	221	10.6	84	39	1.6
1000	30	144				
950	30	575	13.5	62	216	1.9
900	30	1,030	11.9	59	264	4.5
850	30	1,507	9.6	59	295	8.5
800	30	2,008	7.2	51	290	9.1
750	30	2,534	5.0	43	287	11.9
700	30	3,098	2.2	38	287	12.8
650	30	3,690	- 1.2	37	287	13.4
600	30	4,327	- 5.0		287	15.3
550	30	5,003	- 9.1		288	16.1
500	30	5,738	-14.0		291	18.7
450	30	6,525	-19.6		291	21.2
400	30	7,394	-25.9		295	23.1
350	30	8,347	-33.2		293	26.6
300	30	9,413	-41.4		292	30.3
250	30	10,627	-50.4		288	35.8
200	30	12,059	-57.4		290	40.2
175	30	12,900	-58.3		293	37.1
150	30	13,872	-57.8		291	31.3
125	30	15,024	-57.1		284	25.3
100	30	16,433	-58.0		292	20.0
80	30	17,841	-57.8		306	12.2
70	30	18,688	-56.6		320	9.5
60	30	19,665	-55.3		358	5.2
50	30	20,834	-53.3		44	5.8
40	28	22,271	-51.7		67	8.7
30	28	24,147	-49.4		85	11.1
25	28	25,346	-47.8		83	14.2
20	27	26,821	-45.9		84	15.5
15	27	28,751	-42.2		85	18.3
10	23	31,530	-36.4		91	20.4
	21	34,034	-32.1		85	23.5
	17	36,408	-27.7			

SHEMYA, ALASKA
1009 MB

Standard pressure surface (mb)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind Direction	Wind Speed
SURFACE	29	38	5.7	97	188	5.8
1000	29	109	5.4	94	184	5.4
950	29	530	6.1	86	198	10.7
900	29	973	5.8	78	206	10.3
850	29	1,441	4.7	74	209	10.1
800	29	1,934	3.1	70	198	11.1
750	29	2,452	.7	62	202	9.5
700	29	3,006	- 2.1	55	198	12.6
650	29	3,589	- 5.1	44	198	12.0
600	29	4,218	- 8.6	43	198	12.8
550	29	4,882	-12.7	38	208	12.8
500	29	5,608	-17.5		203	14.4
450	29	6,383	-22.7		204	15.0
400	29	7,244	-28.9		208	15.9
350	29	8,186	-35.5		207	18.1
300	29	9,242	-42.7		219	21.2
250	29	10,454	-49.6		231	18.5
200	29	11,902	-51.6		250	16.9
175	29	12,769	-51.2		254	13.8
150	29	13,769	-52.0		259	14.0
125	29	14,945	-53.7		260	11.5
100	28	16,374	-54.7		274	6.4
80	27	17,802	-54.0		302	2.1
70	27	18,661	-53.6		39	3.5
60	27	19,652	-53.0		69	4.5
50	26	20,827	-52.7		86	5.6
40	25	22,275	-52.1		89	8.5
30	24	24,139	-50.9		94	11.3
25	22	25,321	-49.0		90	14.2
20	21	26,787	-46.5		94	15.2
15	21	28,710	-43.3		89	18.8
10	9	31,395	-36.0			

SHREVEPORT, LA.
1006 MB

Standard pressure surface (mb)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind Direction	Wind Speed
SURFACE	30	79	21.3	91	145	3.1
1000	30	133	21.4	89	155	3.9
950	30	582	21.4	75	199	7.8
900	30	1,048	19.0	70	206	8.2
850	30	1,538	16.1	66	210	7.0
800	30	2,051	12.9	63	234	6.2
750	30	2,590	9.7	59	240	6.2
700	30	3,161	6.2	56	239	6.0
650	30	3,762	2.3	54	254	5.2
600	30	4,407	- 1.5	46	271	5.8
550	30	5,093	- 5.8	47	272	6.8
500	30	5,835	-10.2	42	271	8.7
450	30	6,637	-15.2		281	9.7
400	30	7,521	-20.9		283	10.7
350	30	8,494	-27.9		295	12.8
300	30	9,583	-36.1		289	13.6
250	30	10,823	-45.7		274	15.3
200	30	12,275	-56.0		279	21.0
175	30	13,115	-61.0		267	22.7
150	29	14,065	-64.4		278	21.2
125	29	15,174	-66.8		284	16.1
100	28	16,514	-68.8		295	6.4
80	28	17,853	-67.0		48	5.6
70	28	18,676	-64.5		71	9.5
60	28	19,614	-61.3		85	13.2
50	27	20,754	-58.0		91	16.1
40	25	22,171	-54.4		96	16.5
30	24	24,029	-50.8		86	17.7
25	23	25,225	-49.0		84	18.5
20	22	26,692	-46.8		88	19.8
15	19	28,608	-43.7		82	19.0
10	11	31,355	-38.1		83	16.7
	7	33,817	-35.7			
	6	36,164	-32.5			

SPOKANE, WASH.
931 MB

Standard pressure surface (mb)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind Direction	Wind Speed
SURFACE	30	722	9.3	72	166	4.1
1000	30	122				
950	30	555				
900	30	1,008	12.9	55	203	8.5
850	30	1,487	11.2	47	236	9.1
800	30	1,990	7.3	53	243	9.7
750	30	2,512	3.3	56	246	10.7
700	30	3,074	- .5	55	242	12.2
650	30	3,656	- 4.1	46	243	13.2
600	30	4,290	- 7.9	40	247	16.5
550	30	4,954	-12.1	37	242	20.0
500	30	5,684	-17.0	37	245	21.8
450	30	6,457	-22.6	37	238	25.6
400	30	7,321	-28.7	36	243	26.6
350	30	8,263	-35.9		241	27.2
300	30	9,317	-43.6		240	31.7
250	30	10,522	-50.7		243	34.8
200	30	11,960	-54.2		245	30.9
175	30	12,819	-53.2		247	27.4
150	30	13,813	-52.8		247	22.5
125	30	14,988	-53.1		243	18.5
100	30	16,425	-53.8		232	12.2
80	30	17,857	-54.0		227	5.2
70	30	18,712	-53.8		195	2.9
60	30	19,706	-53.1		137	2.1
50	30	20,883	-52.2		84	8.0
40	30	22,329	-51.3		86	9.7
30	27	24,207	-48.8		83	12.8
25	27	25,411	-46.7		82	15.5
20	26	26,895	-44.8		86	16.9
15	24	28,832	-40.9		87	16.5

TAMPA, FLA.
1016 MB

Standard pressure surface (mb)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind Direction	Wind Speed
SURFACE	30	8	23.4	91	116	3.7
1000	30	144	23.5	87	141	4.7
950	30	590	21.7	80	199	5.1
900	30	1,061	19.1	76	206	5.2
850	30	1,552	16.3	73	210	5.1
800	30	2,066	13.3	71	212	5.1
750	30	2,602	10.2	70	219	5.1
700	30	3,179	7.2	62	229	5.6
650	30	3,785	3.8	57	245	6.2
600	30	4,433	.2	55	258	7.2
550	30	5,118	- 3.6	50	266	8.2
500	30	5,873	- 8.1	46	267	8.7
450	30	6,681	-13.1	38	262	7.4
400	30	7,573	-19.0	35	263	10.9
350	30	8,553	-25.9		264	12.0
300	30	9,650	-34.2		259	13.0
250	30	10,899	-44.3		270	16.1
200	30	12,355	-55.9		278	18.1
175	30	13,193	-61.5		281	15.2
150	30	14,136	-66.1		290	15.7
125	29	15,230	-69.4		311	10.1
100	28	16,556	-70.9		5	7.8
80	28	17,887	-67.3		69	10.3
70	28	18,702	-65.2		76	14.0
60	28	19,643	-61.9		84	19.0
50	28	20,782	-57.5		89	22.0
40	27	22,207	-53.7		94	24.1
30	27	24,074	-49.6		92	24.7
25	24	25,271	-47.6		91	23.5
20	19	26,757	-44.9		85	23.7
15	7	28,721	-41.6			

TATOOSH IS., WASH
1015 MB

Standard pressure surface (mb)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind Direction	Wind Speed
SURFACE	30	31	9.9	93	208	6.6
1000	30	151	9.5	88	229	7.0
950	30	573	8.6	77	274	7.2
900	30	1,023	7.7	66	281	7.4
850	30	1,493	5.6	61	271	7.2
800	30	1,987	3.1	53	269	7.8
750	30	2,500	.4	49	270	9.7
700	30	3,057	- 2.6	48	270	10.7
650	30	3,634	- 6.0	42	271	13.6
600	30	4,264	- 9.7	37	270	16.1
550	30	4,923	-13.7	37	269	18.3
500	30	5,648	-18.5	37	270	21.6
450	30	6,415	-23.8	35	272	25.3
400	30	7,275	-30.1	36	274	27.2
350	30	8,212	-36.9		270	29.9
300	30	9,262	-44.0		265	33.6
250	30	10,465	-51.1		262	39.8
200	30	11,901	-54.2		260	36.1
175	30	12,758	-53.4		258	31.1
150	30	13,752	-52.7		254	24.9
125	30	14,928	-52.5		247	19.0
100	30	16,368	-53.3		236	11.5
80	30	17,805	-53.0		216	5.2
70	30	18,663	-53.0		189	4.1
60	30	19,658	-52.9		146	3.7
50	30	20,835	-52.3		94	6.0
40	30	22,282	-51.0		93	9.9
30	30	24,160	-49.1		88	13.4
25	29	25,356	-47.5		88	15.9
20	29	26,838	-45.0		87	16.7
15	28	28,774	-41.1		85	22.7
10	26	31,558	-35.1		89	25.6
	15	34,095	-29.2			

TOPEKA, KANS.
983 MB

Standard pressure surface (mb)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind Direction	Wind Speed
SURFACE	30	269	18.0	92	130	1.7
1000	30	124				
950	30	568	19.1	77	165	4.7
900	30	1,029	17.2	72	209	8.0
850	30	1,516	14.7	68	215	9.1
800	30	2,027	12.6	55	224	7.0
750	30	2,565	9.2	52	243	5.4
700	30	3,135	5.6	52	236	6.0
650	30	3,733	1.9	49	236	6.0
600	30	4,376	- 2.2	43	243	6.4
550	30	5,058	- 6.5	40	251	7.4
500	30	5,801	-11.1		244	8.2
450	30	6,596	-16.2		244	9.5
400	30	7,481	-22.4		253	10.5
350	30	8,448	-29.5		261	13.6
300	30	9,530	-38.1		261	17.5
250	30	10,760	-48.3		261	24.1
200	29	12,194	-58.2		259	34.4
175	29	13,029	-61.3		268	32.6
150	29	13,986	-61.2		268	25.3
125	29	15,117	-62.4		265	18.7
100	29	16,490	-63.6		266	13.8
80	29	17,858	-63.4		290	4.3
70	29	18,687	-61.5		26	2.1
60	29	19,643	-58.9		66	5.6
50	29	20,794	-56.4		78	9.1
40	29	22,220	-53.8		93	9.9
30	27	24,078	-51.3		89	9.7
25	23	25,268	-49.2		89	10.5
20	15	26,713	-47.1			

TUCSON, ARIZ.
921 MB

Standard pressure surface (mb)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind Direction	Wind Speed
SURFACE	30	789	19.1	32	169	5.6
1000	30	72				
950	30	516				
900	30	993	24.0	26	211	2.5
850	30	1,490	21.7	26	306	2.1
800	30	2,012	18.0	27	290	2.1
750	30	2,558	14.0	27	223	4.1
700	30	3,138	9.5	29	217	7.6
650	30	3,741	5.0	29	217	9.7
600	30	4,396	.4	32	223	13.8
550	30	5,077	- 4.7	36	222	16.5
500	30	5,831	-10.0		231	17.3
450	30	6,629	-15.4		242	19.6
400	30	7,516	-21.4		248	23.3
350	30	8,486	-28.4		253	29.1
300	30	9,573	-36.5		257	34.8
250	30	10,810	-45.7		259	40.4
200	30	12,264	-55.2		261	48.6
175	30	13,107	-59.5		265	46.4
150	30	14,063	-63.0		263	38.9
125	30	15,175	-66.2		258	28.6
100	30	16,521	-67.5		250	13.8
80	30	17,869	-65.5		161	2.5
70	30	18,695	-63.4		98	9.1
60	29	19,642	-60.0		92	14.8
50	29	20,788	-56.9		95	16.5
40	29	22,211	-54.1		84	19.8
30	29	24,073	-50.3		89	22.2
25	28	25,267	-48.2		89	19.6
20	25	26,747	-45.7		84	19.8
15	23	28,684	-41.4		81	21.8
10	18	31,469	-35.5		90	24.9
	9	33,986	-30.4			

WAKE IS., PACIFIC AREA
1014 MB

Standard pressure surface (mb)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind Direction	Wind Speed
SURFACE	30	5	26.7	82	72	8.5
1000	30	126	25.8	81	74	11.1
950	30	580	22.7	80	83	12.2
900	30	1,048	19.8	78	86	9.7
850	30	1,540	17.0	75	87	7.6
800	30	2,057	14.6	68	96	6.4
750	30	2,600	12.0	60	95	6.0
700	30	3,177	8.6	55	77	5.2
650	30	3,787	5.5	49	68	4.7
600	30	4,438	2.1	46	76	4.9
550	30	5,132	- 1.9	44	62	5.4
500	30	5,888	- 6.4	41	57	8.0
450	30	6,700	-11.8	41	61	9.1
400	30	7,597	-17.7	36	52	8.7
350	30	8,582	-24.8		54	11.1
300	30	9,684	-33.5		47	10.5
250	30	10,936	-43.8		51	11.1
200	29	12,399	-55.6		53	11.3
175	29	13,237	-62.0		43	10.7
150	29	14,176	-68.4		28	7.2
125	29	15,253	-74.0		40	9.9
100	27	16,548	-74.9		61	17.7
80	26	17,851	-72.5		78	19.4
70	25	18,645	-68.1		77	21.0
60	25	19,578	-64.2		82	24.7
50	25	20,702	-60.7		84	28.8
40	24	22,101	-57.4		[illegible]	29.5
30	24	23,935	-53.4		81	37.9
25	23	25,117	-51.2		83	43.5
20	22	26,576	-48.5		87	47.0
15	20	28,484	-45.8		91	47.4
10	20	31,208	-41.4		88	50.7
	16	33,636	-38.5		[illegible]	59.1
	8	35,931	-36.7			

WASHINGTON, D. C.
1007 MB

Standard pressure surface (mb)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind Direction	Wind Speed
SURFACE	30	84	16.9	94	282	.8
1000	30	148	17.9	87	267	1.9
950	30	590	18.3	68	321	3.3
900	30	1,051	15.8	66	338	3.9
850	30	1,535	13.0	67	300	4.3
800	30	2,043	10.2	59	279	5.1
750	30	2,579	7.8	52	280	8.2
700	30	3,145	5.1	45	272	9.9
650	30	3,746	2.1		268	11.9
600	30	4,389	- 1.6		269	13.6
550	30	5,073	- 5.9		264	16.1
500	30	5,818	-10.7		258	16.1
450	30	6,614	-16.2		262	16.9
400	30	7,499	-22.4		264	18.7
350	30	8,466	-29.4		266	21.6
300	30	9,548	-37.6		259	25.8
250	30	10,782	-47.1		263	30.1
200	30	12,221	-58.1		267	35.6
175	30	13,053	-62.4		273	33.6
150	30	14,001	-63.6		272	29.3
125	30	15,123	-63.1		274	24.9
100	30	16,494	-63.7		287	15.3
80	30	17,868	-61.7		311	7.6
70	30	18,711	-60.2		335	4.1
60	30	19,664	-58.0		40	3.1
50	28	20,818	-55.0		76	6.2
40	28	22,252	-52.7		88	8.2
30	24	24,116	-50.2		90	9.7
25	24	25,312	-48.2		84	9.3
20	17	26,785	-46.4		84	6.5
15	9	28,709	-41.4			

WINNEMUCCA, NEV.
868 MB

Standard pressure surface (mb)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind Direction	Wind Speed
SURFACE	30	1,310	9.8	54	64	.8
1000	30	106				
950	30	542				
900	30	1,002				
850	30	1,483	15.1	37	51	1.7
800	30	1,995	13.2	34	336	1.7
750	30	2,528	9.5	37	288	3.3
700	30	3,103	5.2	40	254	6.2
650	30	3,698	.8	43	239	10.7
600	30	4,341	- 3.9	42	238	15.2
550	30	5,013	- 8.8	38	241	18.8
500	30	5,754	-14.0	34	250	20.4
450	30	6,535	-19.4		253	18.8
400	30	7,411	-25.9		261	21.8
350	30	8,363	-33.5		262	24.9
300	30	9,426	-42.0		256	27.0
250	30	10,636	-50.7		257	31.1
200	30	12,065	-57.5		254	34.4
175	30	12,906	-58.3		255	34.0
150	30	13,878	-57.3		254	31.5
125	30	15,029	-57.8		251	24.3
100	30	16,432	-58.6		248	12.0
80	30	17,832	-58.7		230	4.9
70	30	18,671	-57.6		125	1.9
60	30	19,650	-56.4		93	6.0
50	30	20,810	-55.0		84	8.2
40	28	22,237	-53.5		78	10.3
30	28	24,098	-51.1		77	11.5
25	27	25,293	-48.9		77	12.2
20	23	26,775	-45.7		85	13.6
15	14	28,726	-41.7		89	13.8

WINSLOW, ARIZ.
851 MB

Standard pressure surface (mb)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind Direction	Wind Speed
SURFACE	30	1,492	12.6	33	194	3.9
1000	30	104				
950	30	543				
900	30	1,010				
850	30	1,499	13.6	32	210	3.3
800	30	2,016	17.7	23	249	7.6
750	30	2,565	13.8	25	251	9.7
700	30	3,141	9.4	28	239	9.7
650	30	3,747	4.5	29	224	9.9
600	30	4,398	- .4	30	218	12.0
550	30	5,080	- 5.7		219	13.8
500	30	5,828	-11.3		228	14.2
450	30	6,626	-16.7		239	17.3
400	30	7,503	-23.1		248	19.0
350	30	8,467	-30.2		252	22.2
300	30	9,545	-38.6		255	28.4
250	30	10,773	-47.4		259	33.8
200	30	12,218	-56.2		259	41.6
175	30	13,059	-59.2		260	43.9
150	30	14,021	-60.8		259	37.9
125	30	15,148	-63.5		257	28.0
100	30	16,509	-65.3		250	15.9
80	30	17,871	-64.0		216	4.5
70	30	18,699	-62.9		123	4.9
60	30	19,647	-60.0		100	9.9
50	29	20,791	-57.5		97	11.7
40	29	22,209	-55.0		86	13.8
30	29	24,060	-52.0		86	15.9
25	29	25,247	-49.7		93	14.8
20	28	26,713	-47.3		92	13.0
15	23	28,620	-44.4		98	7.8
10	9	31,334	-40.0			

YAKUTAT, ALASKA
1014 MB

Standard pressure surface (mb)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind Direction	Wind Speed
SURFACE	30	12	7.3	95	105	1.4
1000	30	128	7.4	92	118	1.9
950	30	549	5.4	87	154	3.7
900	30	990	3.1	83	159	4.3
850	30	1,452	1.2	77	161	4.3
800	30	1,939	- .8	73	171	5.4
750	30	2,448	- 3.6	71	153	4.3
700	30	2,995	- 6.9	69	154	4.7
650	30	3,560	-10.6	67	153	4.9
600	30	4,182	-14.2	59	148	3.7
550	30	4,831	-18.4	54	158	3.5
500	30	5,543	-23.0	51	167	3.7
450	30	6,300	-28.4	51	194	2.3
400	30	7,143	-34.7	52	156	1.4
350	30	8,063	-41.3		322	1.0
300	30	9,096	-47.2		333	1.9
250	30	10,293	-50.4		307	4.7
200	30	11,754	-48.5		308	7.0
175	30	12,635	-47.7		318	4.5
150	30	13,652	-48.1		323	2.9
125	30	14,852	-48.9		323	1.6
100	30	16,317	-49.2		71	2.3
80	30	17,780	-49.2		115	2.9
70	30	18,659	-49.1		97	3.9
60	30	19,667	-49.0		88	5.2
50	30	20,864	-48.8		88	8.0
40	30	22,331	-48.4		95	11.7
30	30	24,230	-47.0		91	14.0
25	29	25,438	-45.9		92	16.5
20	29	26,929	-43.9		93	19.2
15	26	28,873	-40.7		89	22.3
10	18	31,655	-37.1		77	27.8

YUCCA FLAT, NEV.
879 MB

Standard pressure surface (mb)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind Direction	Wind Speed
SURFACE	30	1,196	10.5	33	351	1.7
1000	30	94				
950	30	529				
900	30	990				
850	30	1,479	19.7	26	236	1.4
800	30	1,998	16.6	26	213	6.2
750	30	2,540	12.9	27	216	7.0
700	30	3,118	8.5	29	206	6.6
650	30	3,717	3.8	32	186	5.6
600	30	4,368	- 1.3	31	193	6.0
550	30	5,046	- 6.1		232	6.6
500	30	5,795	-11.0		248	9.9
450	30	6,589	-17.0		262	14.4
400	30	7,469	-23.8		266	18.3
350	30	8,429	-31.3		267	20.6
300	30	9,502	-39.6		265	23.5
250	30	10,725	-48.8		262	29.5
200	29	12,161	-56.9		261	35.8
175	29	13,002	-58.9		257	36.7
150	28	13,975	-59.1		256	34.4
125	28	15,113	-60.9		253	28.0
100	28	16,494	-62.3		249	17.1
80	26	17,875	-61.0		222	6.0
70	26	18,712	-59.9		162	2.5
60	25	19,672	-57.8		99	5.6
50	25	20,827	-55.7		84	11.1
40	20	22,271	-53.4		84	13.0
30	15	24,125	-50.3		84	16.3
25	13	25,314	-49.0		86	16.9
20	13	26,787	-46.3		77	15.5
15	11	28,702	-42.4			

See reference note at end of table

RAWINSONDE DATA

Average monthly values

JUNE 1962

Standard pressure surface (mb.)	YUMA, ARIZ. 992 MB					
	Number of observations	Dynamic height	Temperature	Relative humidity	Wind	
					Direction	Speed
SURFACE	30	131	22.6	32	1	.8
1000	30	57				
950	30	502	26.1	24	254	4.9
900	30	981	24.4	22	253	8.2
850	30	1,477	21.4	21	235	5.6
800	30	1,998	17.4	22	222	5.1
750	30	2,540	13.3	22	223	6.8
700	30	3,120	9.2	19	220	8.0
650	29	3,724	4.6	21	227	10.5
600	29	4,374	- .1	22	226	11.7
550	29	5,055	- 5.0	25	236	11.7
500	29	5,807	- 9.6	21	251	12.4
450	29	6,606	-15.3	18	255	15.2
400	29	7,490	-22.1	18	260	16.3
350	29	8,458	-29.5	18	265	18.7
300	29	9,539	-37.9	18	261	28.8
250	29	10,772	-46.5		260	36.9
200	29	12,223	-55.6		262	45.7
175	29	13,066	-59.4		258	45.1
150	29	14,024	-62.5		260	47.4
125	28	15,140	-64.6		259	32.6
100	27	16,491	-66.6		250	17.7
80	27	17,847	-64.5		228	7.2
70	27	18,667	-62.8		149	4.5
60	25	19,622	-60.4		108	7.6
50	25	20,766	-57.6		94	12.0
40	25	22,184	-55.0		89	15.3
30	25	24,036	-51.5		87	20.0
25	25	25,225	-49.5		85	19.0
20	25	26,694	-47.3		86	20.6
15	23	28,618	-43.4		91	20.0
10	17	31,367	-38.7		104	18.8
7	9	33,832	-33.9			

Note: All observations scheduled at 1200, G. C. T. Pressures shown under station names are the average monthly station pressures for the month of record, corrected to the height of the floors of the instrument shelters used for rawinsonde purposes. "Number of observations" refers to those of dynamic height only. Although the number of temperature observations at any given pressure surface is usually the same as for height, it is possible for temperature to be missing for one or more pressure surfaces of some observations. Relative humidity averages are limited to those observations with temperatures warmer than -40°C. Observations of wind speed and direction are sometimes lost due to limiting angles, i. e., elevation angles less than 6° above the horizon, or any obstruction above the horizon.

The temperature and wind values are based on 15 or more observations at the surface or 5 observations at a standard pressure level for temperature and 10 for wind. Relative humidity data are not published for standard pressure surfaces for which less than 16 observations are available.

Relative humidity data are computed and expressed on the basis of vapor pressure over water. Unless otherwise indicated, they are obtained from lithium chloride hygristors.

These average values for standard pressure surfaces were obtained by rawinsondes, dynamic height (geopotential) in units of .98 dynamic meter, temperature in degrees Celsius, relative humidity in percent, and resultant winds in degrees and knots

SOLAR RADIATION DATA

Solar radiation intensities, tabulated in langleys per minute on a surface normal to the direction of the sun. JUNE 1962

Date	Sun's zenith distance								
	A. M.				*	P. M.			
	78.7°	75.7°	70.7°	60.0°		60.0°	70.7°	75.7°	78.7°
ALBUQUERQUE, N. MEX.									
	Air mass								
	4.19	3.35	2.51	1.67	*	1.67	2.51	3.35	4.19
June									
1-----	0.79	0.87	1.01	1.17	1.42	----	(1.04)	----	----
2-----	.81	.89	1.03	1.20	1.40	----	----	----	----
3-----	.86	.95	----	1.22	1.43	----	----	----	----
4-----	(.73)	(.77)	(.96)	(1.13)	1.43	1.23	1.04	(0.89)	----
5-----	.90	1.00	1.11	1.26	1.46	1.20	----	----	----
6-----	.91	1.01	1.15	1.31	1.49	1.23	1.07	.94	0.85
7-----	.86	.95	1.09	1.24	1.45	1.20	(.99)	(.84)	----
8-----	.71	.81	.96	1.15	1.35	----	----	----	----
9-----	.71	.81	.93	1.11	1.41	1.19	.96	----	----
10----	.75	.83	.97	1.14	1.42	----	----	----	----
11----	----	----	----	----	1.43	1.16	1.01	.86	.81
12----	----	----	.98	1.15	1.40	1.17	1.00	.85	.77
13----	.73	.83	.97	1.13	1.43	----	----	----	----
14----	1.03	1.08	1.18	1.29	(1.39)	----	----	----	----
15----	.95	1.03	1.15	1.28	D(1.32)	D(1.17)	D(1.07)	D (.98)	D (.89)
16----	.97	1.03	1.14	1.24	1.48	1.23	1.09	.95	.87
17----	.97	1.04	1.14	1.28	1.49	1.25	1.09	.94	.86
18----	.94	1.02	1.14	1.27	1.47	1.26	1.13	.99	.95
19----	D (.51)	D (.63)	D (.83)	D(1.08)	D(1.31)	D(1.12)	D (.94)	D (.77)	D (.66)
20----	.77	.86	1.00	1.15	1.36	(1.09)	----	----	----
21----	.84	.91	1.04	1.18	1.35	1.11	(.85)	----	----
22----	.76	.85	.97	1.11	1.42	1.15	.99	.84	.77
24----	----	----	----	----	1.38	----	----	----	----
25----	.65	.75	.88	1.07	----	----	----	----	----
26----	.74	.80	.95	1.11	1.31	----	----	----	----
27----	.63	.69	.86	1.06	1.33	(1.05)	----	----	----
28----	.64	.71	.86	1.03	1.29	----	----	----	----
29----	.69	.81	.95	1.12	----	----	----	----	----
30----	----	----	----	----	1.34	----	----	----	----
Averages	0.81	0.89	1.02	1.18	1.41	1.20	1.04	0.91	0.84
TUCSON, ARIZ.									
	Air mass								
	4.56	3.65	2.74	1.83	*	1.83	2.74	3.65	4.56
June									
1-----	0.74	0.84	0.97	1.13	----	----	----	----	----
4-----	.90	.99	1.10	1.23	----	----	1.04	0.90	0.82
5-----	.51	.67	.87	1.13	----	1.22	1.06	.94	.84
6-----	.81	.91	1.01	1.18	----	1.21	1.05	.95	.87
7-----	.85	.93	1.07	1.14	----	----	1.01	.91	.80
8-----	.81	.92	1.04	1.20	----	1.17	1.00	.86	.73
9-----	.75	.86	.99	1.17	----	1.15	1.02	.88	.80
10----	.84	.95	1.07	1.24	----	1.24	1.09	.98	.89
11----	.89	1.00	1.13	1.26	----	1.28	1.09	.96	.85
12----	.86	.95	1.09	1.25	----	----	----	----	----
13----	.96	1.05	1.16	1.27	----	----	----	----	----
14----	.88	.98	1.11	1.26	----	1.23	1.08	.94	.84
15----	.85	.96	1.10	1.23	----	1.24	1.12	.98	.89
16----	.83	.93	1.05	1.24	----	----	1.00	.88	.79
17----	.78	.88	1.00	1.16	----	1.08	.92	.78	.67
18----	.70	.80	.93	----	----	----	----	.73	.68
21----	.74	.84	.96	1.12	----	----	.95	.80	.70
22----	.72	.80	.92	1.06	----	----	----	----	----
23----	.69	.79	.92	1.08	----	1.09	.89	.77	.67
24----	----	----	.77	.93	----	----	.86	.75	.67
Averages	0.80	0.90	1.01	1.17	----	1.19	1.01	0.88	0.78

( ) Clouds present
* Values corresponding to true solar noon.
D Dust
E Interpolated
S Slight haze - indeterminable
M Moderate haze - indeterminable

Date	Sun's zenith distance								
	A. M.				*	P. M.			
	78.7°	75.7°	70.7°	60.0°		60.0°	70.7°	75.7°	78.7°
BLUE HILL OBS., MASS.									
	Air mass								
	4.89	3.92	2.94	1.96	*	1.96	2.94	3.92	4.89
June									
2-----	0.74	0.86	1.06	1.23	1.46	1.21	0.98	0.79	0.71
3-----	----	----	----	1.29	1.52	1.29	1.11	.98	.88
4-----	.82	.91	1.04	1.18	----	----	----	----	----
7-----	.79	.89	1.01	1.22	1.50	1.24	1.00	.87	.81
8-----	.71	.86	1.01	1.23	1.47	1.21	1.04	.88	.77
9-----	.83	.95	1.08	1.25	----	----	----	----	----
15----	----	.83	.95	1.13	1.44	----	----	----	----
16----	.74	.83	.94	1.08	1.28	----	----	.65	.57
17----	.71	----	----	----	----	----	----	----	----
18----	----	----	.70	.91	----	----	----	----	----
21----	----	----	----	----	----	----	.84	.72	.64
22----	.58	.69	----	----	----	----	----	----	.62
25----	----	----	----	----	----	----	.76	.62	.53
26----	.47	.57	.67	.88	----	----	----	----	----
27----	----	----	----	----	----	.98	.83	.70	.62
28----	.60	.70	.78	.91	1.13	.87	.70	.58	.48
29----	.53	.66	.77	.95	----	----	----	----	----
Averages	0.68	0.80	0.91	1.11	1.40	1.13	0.91	0.75	0.66
MAUNA LOA OBS., HAWAII									
	Air mass								
	3.36	2.69	2.01	1.34	*	1.34	2.01	2.69	3.36
June									
2-----	1.12	1.18	1.28	1.40	----	----	----	----	----
3-----	----	----	----	----	1.58	----	1.32	----	----
4-----	1.19	1.26	1.36	1.47	1.60	1.44	1.32	1.22	1.15
5-----	1.18	1.26	1.34	1.45	1.58	1.42	1.33	1.24	1.16
6-----	E 1.16	E 1.25	1.34	1.45	E 1.57	1.43	1.33	1.24	1.16
7-----	1.17	1.25	1.34	1.44	1.58	1.44	1.33	1.24	1.17
8-----	1.20	1.28	1.38	1.50	1.61	1.49	1.38	1.29	1.22
10----	----	----	1.41	1.51	----	----	----	----	----
11----	1.23	1.30	1.39	1.48	1.58	----	----	----	----
12----	1.23	1.30	1.38	1.48	----	----	----	----	----
13----	1.23	1.31	1.39	1.49	1.61	1.44	1.34	1.24	1.17
14----	1.24	1.30	1.39	1.50	1.59	----	----	----	----
15----	1.19	1.28	1.37	1.48	E 1.57	----	----	----	----
16----	1.18	1.25	1.34	1.44	----	----	----	----	----
17----	1.16	1.24	1.33	1.45	----	----	----	----	----
19----	1.18	1.26	1.34	1.44	----	----	----	----	----
20----	1.20	1.27	1.36	1.44	----	----	----	----	----
21----	1.17	1.25	1.34	1.44	----	----	----	----	----
22----	1.14	1.22	1.31	1.42	1.55	----	1.22	1.12	1.05
23----	1.14	1.22	1.31	1.42	1.55	----	----	----	----
24----	1.12	1.21	1.31	1.41	1.56	1.41	1.30	1.21	1.10
25----	1.15	1.23	1.33	1.44	----	1.44	1.30	1.19	1.07
26----	1.20	1.29	1.39	1.48	1.61	1.46	1.36	1.27	1.19
27----	1.23	1.32	1.41	1.51	1.58	1.50	1.40	1.31	1.24
28----	1.24	1.32	1.40	1.50	1.61	1.43	1.34	----	1.19
29----	----	----	----	----	1.61	----	----	----	----
30----	1.15	1.22	1.32	1.43	1.56	1.41	1.31	1.22	1.13
Averages	1.18	1.26	1.35	1.46	1.58	1.44	1.33	1.23	1.15
GUAM, M. I.									
	Air mass								
	4.92	3.93	2.95	1.97	*	1.97	2.95	3.93	4.92
	No observations due to cloudiness								

Langley is the unit used to denote one gram calorie per square centimeter. An explanation of the formula used in computing the air mass values for each station listed above appears in the February 1957 issue, Vol. 8, No. 2, page 63, of this publication.

SOLAR RADIATION DATA

Daily totals and weekly averages of solar radiation (direct and diffuse) received on a horizontal surface, tabulated in langleys.

	Albuquerque, N.Mex.	Annette, Alaska	Apalachicola, Fla.	Astoria, Oreg.	Barrow, Alaska	Bethel, Alaska	Bismarck, N. Dak.	Blue Hill Obs.,Mass.	Boise, Idaho	Boston, Mass.	Brownsville, Tex.	Caribou, Maine	Charleston, S. C.	Cleveland, Ohio	Columbia, Mo.	Davis, Calif.	Dodge City, Kans.	E. Lansing, Mich.	El Paso, Tex.	Ely, Nev.	Fairbanks, Alaska	Flaming Gorge, Utah	Fort Worth, Tex.		Glasgow, Mont.	Grand Junction, Colo.	Great Falls, Mont.	Greensboro, N. C.	Griffin, Ga.	Cape Hatteras, N.C.	Hilo, Hawaii	Indianapolis, Ind.	Ithaca, N. Y.	Lake Charles, La.	Lander, Wyo.	Laramie, Wyo.
1962																																					
June 4	810	479	729	259	734	306	264	718	689	730	578	678	498	322	555	776	753	369	769	821	279	574	711		105	728	367	312	548	633	659	505	515	99	687	660
June 5	803	365	604	492	640	515	765	168	711	178	712	413	260	171	656	772	770	328	802	812	469	410	720		726	632	693	349	616	670	588	560	157	593	730	535
June 6	830	89	526	781	548	526	507	428	789	396	642	211	630	668	315	785	752	644	809	728	647	432	506		163	819	721	556	721	534	444	554	720	599	472	517
June 7	822	406	661	765	672	---	369	804	798	712	684	694	409	674	336	777	591	706	822	855	491	463	583		694	714	657	643	499	781	446	654	743	541	536	198
June 8	780	481	524	303	643	171	764	799	772	753	718	667	599	663	462	770	560	754	805	840	634	786	542		765	813	719	609	721	708	323	537	739	499	706	656
June 9	817	423	673	369	626	296	286	734	562	698	610	720	410	597	341	780	556	243	787	832	728	758	344		755	853	482	691	484	756	569	499	674	563	746	701
June 10	809	154	617	733	790	252	596	680	536	653	664	146	614	480	657	780	773	275	777	836	700	624	671		699	825	412	685	833	730	310	485	336	611	700	716
Average	810	342	619	529	665	344	507	619	694	589	658	504	489	511	475	777	679	474	796	818	564	578	582		558	769	579	549	632	687	477	542	555	501	654	569
June 11	838	579	357	699	608	155	688	553	800	495	729	284	704	430	638	780	755	542	771	829	678	648	488		584	748	724	604	579	774	620	367	392	611	480	519
June 12	784	785	294	333	566	231	415	147	748	119	658	554	344	176	361	788	---	755	748	841	564	---	534		630	792	543	163	539	691	589	230	108	496	567	495
June 13	748	340	730	368	770	439	597	93	417	120	724	750	559	44	788	755	648	651	706	837	379	717	660		641	---	244	304	498	343	---	596	125	462	633	694
June 14	786	521	734	372	651	677	463	380	664	440	719	741	534	124	698	526	506	---	742	520	268	777	614		173	728	128	192	731	288	568	685	276	534	805	519
June 15	799	764	721	267	---	681	442	762	690	714	728	588	385	628	757	731	760	---	788	578	596	734	619		302	939	460	728	825	388	593	703	688	635	183	338
June 16	812	199	689	416	---	801	(627)	719	736	701	756	721	(513)	645	786	757	765	---	802	421	734	471	728		624	423	680	689	679	745	441	706	736	431	527	269
June 17	810	234	720	591	769	787	461	674	782	708	700	447	---	662	678	750	475	---	800	753	716	690	663		736	806	702	696	724	749	311	723	674	669	659	422
Average	797	489	606	435	673	539	(528)	475	691	471	716	583	(506)	387	672	727	652	---	765	683	562	673	615		527	739	497	482	654	568	521	573	428	548	551	465
June 18	858	410	576	792	323	772	677	559	715	615	709	786	---	634	590	753	362	---	768	823	720	733	705		765	811	761	697	491	744	517	611	528	356	743	721
June 19	764	611	626	---	577	754	505	439	515	432	714	130	627	562	752	755	754	---	703	829	636	682	687		726	815	763	700	634	730	594	637	429	452	674	683
June 20	752	771	705	729	---	750	545	477	764	475	388	119	632	425	688	761	679	---	754	634	665	556	755		613	800	725	217	239	723	457	718	162	515	669	637
June 21	779	603	407	709	---	479	756	224	748	279	615	602	395	572	381	767	715	---	751	527	149	736	738		743	778	728	626	748	460	(487)	662	612	611	584	648
June 22	791	611	663	629	---	509	626	615	790	652	671	526	132	502	500	780	676	639	736	525	555	386	721		483	689	683	446	762	698	347	583	636	487	765	530
June 23	749	263	438	768	---	775	771	326	371	333	662	201	648	468	564	796	738	450	738	842	614	---	744		771	685	683	597	702	671	592	584	395	567	619	450
June 24	753	109	296	694	566	---	676	178	755	202	562	348	644	670	315	785	749	772	683	847	649	---	701		621	797	721	551	634	657	666	539	522	634	699	471
Average	778	483	530	720	---	673	651	403	666	427	617	387	513	547	541	771	668	---	733	718	570	619	722		675	768	723	548	602	669	(523)	619	469	518	679	591
June 25	692	532	644	412	734	281	768	582	710	617	176	433	402	698	641	810	580	686	753	841	515	782	---		772	894	547	681	708	483	650	582	650	489	778	493
June 26	704	652	605	505	790	597	751	459	780	515	257	607	478	684	653	797	384	732	739	833	455	657	582		(739)	802	715	573	705	613	651	632	659	497	774	727
June 27	737	357	626	469	592	---	751	548	765	597	561	661	503	705	724	766	490	740	701	826	527	744	551		651	775	725	273	379	343	494	697	736	374	719	560
June 28	713	160	415	734	876	818	717	633	671	744	644	707	338	610	---	804	742	748	756	819	427	587	393		785	705	745	235	193	268	462	655	690	215	755	537
June 29	527	700	361	253	---	805	764	592	633	701	586	725	744	550	612	804	668	502	664	437	679	---	286		771	506	676	786	677	38	286	658	536	256	376	430
June 30	622	488	468	334	677	789	347	533	749	626	---	596	637	532	697	800	737	580	702	821	750	491	351		567	417	574	489	789	275	346	387	493	235	684	353
July 1	747	493	514	589	323	782	128	407	761	433	716	748	674	465	646	785	755	535	696	846	709	687	570		654	754	440	651	786	739	470	410	659	329	750	576
Average	677	483	519	471	665	679	604	536	724	605	490	639	540	606	662	795	622	646	716	775	580	658	456		(706)	693	632	527	605	394	480	574	632	342	691	525

Note.--Langley is the unit used to denote one gram calorie per square centimeter.
Values in parentheses are interpolated.

SOLAR RADIATION DATA

Daily totals and weekly averages of solar radiation (direct and diffuse) received on a horizontal surface, tabulated in langleys.

1962	Las Vegas, Nev.	Little Rock, Ark.	Los Angeles, Calif.	Los Angeles, Calif. (Urban)	Matanuska, Alaska	Mauna Loa Obs, Hawaii	Medford, Oreg.	Miami, Fla.	Midland, Tex.	Nashville, Tenn.	Newport, R. I.	North Omaha, Nebr.	Oak Ridge, Tenn.	Oklahoma City, Okla.	Page, Ariz.
June 4-----	793	478	543	289	318	792	573	---	595	396	668	452	430	684	745
June 5-----	795	---	494	431	396	790	768	---	576	624	159	635	442	667	754
June 6-----	794	461	470	321	458	790	772	---	653	622	459	297	440	617	---
June 7-----	792	552	313	219	330	791	763	---	645	661	724	500	576	603	739
June 8-----	807	431	260	481	566	808	740	---	628	441	714	299	504	478	786
June 9-----	790	493	191	351	597	(782)	685	---	294	449	696	538	525	553	768
June 10-----	774	521	356	272	427	(692)	762	---	617	498	659	705	501	516	752
Average--------	792	489	375	338	441	(778)	723	---	573	527	583	490	488	588	757
June 11-----	780	442	385	393	645	624	765	---	569	259	564	---	337	494	755
June 12-----	787	580	385	390	137	628	784	---	670	383	76	729	206	674	761
June 13-----	803	571	508	333	191	796	624	---	---	289	93	738	451	658	763
June 14-----	496	682	574	327	373	769	772	---	710	678	173	753	666	641	523
June 15-----	741	696	335	211	529	(713)	748	---	727	717	582	585	689	643	727
June 16-----	581	653	544	331	728	411	770	---	736	711	701	569	667	714	366
June 17-----	768	699	714	750	717	364	779	---	614	695	707	538	667	721	763
Average--------	708	617	492	391	474	(615)	749	---	671	533	414	652	526	649	665
June 18-----	779	445	689	751	721	460	787	---	624	607	627	---	618	513	767
June 19-----	774	336	600	723	725	405	776	---	745	192	619	---	385	726	761
June 20-----	779	707	607	693	668	438	761	---	762	562	339	688	557	618	743
June 21-----	780	452	531	699	332	524	763	---	742	599	121	505	697	623	741
June 22-----	805	573	632	722	699	---	720	---	745	517	543	545	587	---	741
June 23-----	814	566	693	748	475	762	733	(706)	742	542	263	709	520	502	657
June 24-----	802	606	718	822	---	779	744	(673)	742	565	196	689	658	563	744
Average--------	790	526	639	737	603	561	755	---	729	512	387	627	574	591	736
June 25-----	792	258	732	765	---	792	685	(554)	572	228	659	445	561	579	719
June 26-----	797	300	727	731	---	785	789	632	617	290	531	762	338	531	736
June 27-----	717	589	631	702	530	789	758	667	726	347	627	662	179	679	663
June 28-----	639	600	524	708	226	790	708	349	504	493	724	627	535	601	452
June 29-----	705	445	597	723	565	726	732	434	671	600	695	396	591	651	451
June 30-----	826	489	691	780	546	774	766	398	545	595	622	586	642	696	707
July 1-----	819	560	745	781	756	739	711	408	542	604	536	268	680	638	738
Average--------	756	463	664	741	525	771	736	(492)	597	451	628	535	504	625	638

1962	Prosser, Wash.	Pullman, Wash.	Rapid City, S. Dak.	Riverside, Calif.	Salt Lake City, Utah	San Antonio, Tex.	Santa Maria, Calif.	Sayville, N. Y.	Seattle, Wash.	Seattle-Tacoma, Wash.	Shreveport, La.	Spokane, Wash.	State College, Pa.	Swan Island, W. I.	Tampa, Fla.	Tucson, Ariz.	Washington, D. C. (Obs & Test Dev Ctr)
June 4-----	638	637	554	645	715	420	822	656	346	391	521	585	290	589	703	771	329
June 5-----	541	441	631	489	672	435	797	83	368	454	394	410	202	554	713	768	264
June 6-----	708	697	645	518	543	586	735	542	731	751	---	665	682	592	404	772	671
June 7-----	683	751	297	585	853	501	619	598	692	752	364	565	817	564	407	774	772
June 8-----	608	829	620	591	828	526	659	675	299	393	455	718	792	590	513	784	716
June 9-----	697	842	615	639	823	523	577	664	253	402	423	798	767	66	447	771	748
June 10-----	718	---	742	520	799	535	610	613	453	434	575	720	558	148	330	777	727
Average--------	656	700	586	570	747	504	688	547	449	511	455	637	587	443	503	774	604
June 11-----	702	859	378	635	784	665	722	474	739	779	285	806	423	197	---	798	---
June 12-----	493	691	472	595	759	663	521	73	238	244	545	701	302	534	455	786	224
June 13-----	535	343	569	765	814	678	356	99	374	389	199	215	91	556	451	---	118
June 14-----	586	250	626	290	684	647	319	186	615	688	526	296	363	517	309	804	396
June 15-----	591	630	500	189	493	675	318	563	617	631	569	688	556	590	---	792	588
June 16-----	702	802	543	502	440	683	623	657	514	600	556	781	786	588	635	800	745
June 17-----	725	---	519	779	824	616	721	633	---	612	523	815	736	590	515	787	715
Average--------	619	596	515	536	685	661	511	384	516	563	458	614	465	510	473	794	464
June 18-----	699	862	652	789	818	634	768	569	709	558	474	817	711	591	642	771	699
June 19-----	729	851	606	795	800	523	763	592	701	759	---	805	433	360	498	762	579
June 20-----	652	860	371	775	771	620	781	215	720	730	513	779	358	598	705	752	118
June 21-----	727	848	554	793	817	614	755	186	686	757	505	798	458	96	293	760	676
June 22-----	693	819	713	795	765	677	669	265	686	696	449	779	580	538	896	675	482
June 23-----	469	539	757	793	813	603	715	215	711	753	513	565	465	619	708	752	541
June 24-----	644	776	363	811	833	541	765	137	417	(453)	491	751	508	631	713	730	525
Average--------	659	794	574	793	802	602	745	311	661	(672)	491	756	502	490	637	743	517
June 25-----	551	761	617	805	823	665	778	602	542	614	209	724	752	554	680	620	686
June 26-----	734	886	737	782	795	488	826	469	223	258	374	810	638	530	621	579	352
June 27-----	728	825	711	791	809	---	780	669	419	612	426	767	815	602	643	644	697
June 28-----	709	838	709	761	770	---	539	685	628	(727)	306	807	763	549	542	680	665
June 29-----	699	595	679	796	363	---	540	567	683	722	388	774	545	442	563	430	621
June 30-----	710	829	263	801	654	---	574	692	224	(351)	427	794	531	445	588	748	542
July 1-----	720	715	251	831	818	---	691	453	239	(580)	428	709	669	456	455	431	623
Average--------	693	778	567	795	719	---	676	591	423	(552)	365	769	673	511	585	590	598

Note.--Langley is the unit used to denote one gram calorie per square centimeter.
Values in parentheses are interpolated.

TOTAL OZONE DATA

The total amount of ozone is expressed in 10^{-3} cm. at STP. These data are provisional values applicable to local noon, and are obtained from measurements with a Dobson ozone spectrophotometer using the sun or zenith sky as a light source (see explanation below).

JUNE 1962

Station	Day of month																														
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31
Bismarck, N. Dak.	---	336	---	350	333	320	---	334	---	344	316	---	332	---	324	312	---	---	329	294	323	337	339	323	316	294	297	309	319	294	
Caribou, Maine	---	---	---	348	---	---	393	395	353	---	336	351	358	339	342	334	285	334	---	---	361	342	---	---	344	345	373	321	322	323	
Green Bay, Wis.	---	270	---	---	---	296	310	---	---	322	---	340	323	320	307	292	---	310	309	---	---	---	339	328	289	298	270	273	283	299	
Mauna Loa, Hawaii	---	289	281	282	278	277	278	290	---	282	287	276	278	282	---	---	288	---	274	272	270	272	276	274	276	276	275	279	---	290	
Nashville, Tenn.	---	310	---	---	309	321	343	347	---	---	---	---	---	304	330	311	310	296	---	---	---	---	311	323	---	---	---	331	337	334	
Sterling, Va.	---	326	---	---	---	329	355	356	---	365	*356	---	---	*340	---	---	---	312	305	---	352	331	---	---	324	---	336	350	*337	---	

The spectrophotometer measures the total amount of ozone in the atmosphere, i.e., the amount contained in a vertical column of air extending from the ground to the top of the atmosphere in the vicinity of the station. The amount of ozone in this column is expressed in terms of thickness of a layer it would occupy at standard temperature and pressure.

The standard method of measurement is that on direct sun using A(3055Å and 3254Å) and D(3176Å and 3398Å) wavelength pairs. Observations made on the clear zenith sky are slightly less accurate, and are marked with a dagger (†). Observations made on zenith cloud are least reliable, and are marked with an asterisk (*). A detailed description of the spectrophotometer and observational procedures may be found in the "Observers' Handbook For the Ozone Spectrophotometer", Annals of the International Geophysical Year, Volume V, Pergamon Press, 1957.

CONDENSED CLIMATOLOGICAL SUMMARY

DELAYED DATA

Section	Temperature						Precipitation			
	Monthly extremes						Monthly extremes			
	Station	Highest	Date	Station	Lowest	Date	Station	Greatest	Station	Least
		°F			°F			In.		In.
November 1961										
Alaska	Hollis	57	12	Hughes	-52	25	Little Port Walter	25.99	Teller	0.06
December 1961										
Alaska	Cape Sarichef Light	57	7	2 Stations	-69	29+	Beaver Falls	19.94	Wainwright	.02
Hawaii	5 Stations	87	31+	Mauna Loa Slope Obs.	26	23	Waikamoi	29.20	Puu Anahulu	.52
January 1962										
Alaska	Ketchikan	54	1	Tok	-69	27	Little Port Walter	32.13	Teller	T
Hawaii	Upolu Point USCG	91	21	Mauna Loa Slope Obs.	25	24	N. Wailua Ditch	28.26	Pohakuloa	.31
February 1962										
Alaska	Cape Sarichef Light	54	26	Allakaket	-55	3	Cape Hinchinbrook	19.25	Eldred Rock	.05
Hawaii	Upolu Point USCG	91	7	Mauna Loa Slope Obs.	18	20	Puohokamoa	17.23	Honuaula	.06
March 1962										
Alaska	Hollis	57	31	Barrow WB AP	-45	26	Port Alexander	23.39	Wainwright	.06
Hawaii	Opihihale 2	92	15	Kulani Mauka	22	22	2 Stations	37.85	Puako	.75
April 1962										
Alaska	2 Stations	61	28+	Barrow WB AP	-32	2	Cape Hinchinbrook	32.25	3 Stations	T
Hawaii	Upolu Point USCG	90	26	Mauna Loa Slope Obs.	26	8	N. Wailua Ditch	21.70	Kaunakakai	.00
May 1962										
Hawaii	3 Stations	88	29+	Haleakala Summit	34	13+	Pepeekeo AF	29.20	Puehu Ridge	.00

See reference notes with current data.

CORRECTIONS

	Month:	January 1961
page 21:	Jacksonville, Fla.	Heating Degree Days should be 441, accumulated 962; accumulated values for February through June are: 1124, 1184, 1243, 1243, and 1243, respectively.
	Month:	1961 Annual
page 9:	Atlanta, Ga.	Data shown for Feb. 19 is for Feb. 18. Add another period of excessive precipitation for Feb. 24: 0.27, 0.30, 0.35, 0.38, 0.50, 0.61, 0.68, 0.77, 0.81, 0.82, 0.85, and 0.88, consecutively.
page 30 & 40:	Oak Grove, Tenn.	Should read Oak Ridge (area station)
	Month:	January 1962
page 34:	Seattle, Washington	Surface height should be 125 m.
page 38:	Prosser, Washington	All data from Jan. 16 through Feb. 4 are doubtful data.
	Month:	February 1962
page 97:	Tucson, Arizona	Values from Feb. 23 through March 4 should be multiplied by 0.934 to obtain corrected values.
	Month:	March 1962
page 165:	Tucson, Arizona	The values as published have been corrected and appear on page 333 of this issue.
	Month:	April 1962
page 213:	Canton Island	See corrected data on page 331 of this issue.
	Month:	February 1962
page 78:	El Paso, Texas	Accumulated heating degree days should be 2242, for March 2675, April 2711, and May 2714.
	Green Bay, Wis.	Accumulated heating degree days should be 6148, for March 7309, April 7955, and May 8176.

RAWINSONDE DATA

Average monthly values

DELAYED DATA

Standard pressure surface (mb.)	1/ MERIDA, MEXICO (1016 MB.)						1/ JACKASS FLATS, NEV. (891 MB.)						2/ MERIDA, MEXICO (1018 MB.)					
	Number of observations	Dynamic height	Temperature	Relative humidity	Wind Direction	Wind Speed	Number of observations	Dynamic height	Temperature	Relative humidity	Wind Direction	Wind Speed	Number of observations	Dynamic height	Temperature	Relative humidity	Wind Direction	Wind Speed
SURFACE	31	11	18.2	96	81	6.0	16	1,102	0.1	64	42	3.7	31	11	17.3	95	73	5.6
1,000--	31	144	20.8	86	89	10.1	16	162					31	163	19.9	85	77	9.5
950----	31	588	19.5	81	103	12.6	16	576					31	603	18.1	80	99	12.2
900----	31	1,053	17.0	76	104	9.5	16	1,017					31	1,067	15.5	77	111	10.3
850----	31	1,540	14.5	69	92	5.6	16	1,478	1.6		39	4.1	31	1,551	12.9	71	125	4.7
800----	31	2,051	12.4	57	94	3.1	16	1,964	- 1.2	49	27	3.9	31	2,060	11.2	57	161	4.1
750----	31	2,586	9.8	55	154	2.9	16	2,476	- 3.4		303	3.5	31	2,592	9.1	47	177	3.3
700----	31	3,161	6.6	47	228	2.3	16	3,019	- 6.0		290	8.7	31	3,167	6.3	41	198	6.0
650----	31	3,759	3.1	42	237	5.2	16	3,594	- 8.9		300	12.6	31	3,769	3.4		231	6.2
600----	31	4,411	- .4		234	8.4	16	4,212	-12.9		302	15.0	31	4,418	.0		244	8.2
550----	31	5,092	- 4.0		250	10.1	16	4,862	-17.2		302	19.4	31	5,102	- 3.2		244	10.5
500----	31	5,849	- 8.4		264	11.3	16	5,576	-21.9		307	25.3	31	5,861	- 7.5		246	15.3
450----	31	6,657	-13.2		268	13.4	16	6,329	-27.0		308	29.7	31	6,672	-12.9		252	19.8
400----	31	7,548	-19.6		267	16.1	16	7,182	-33.1		313	36.3	31	7,563	-19.5		256	23.7
350----	31	8,525	-26.9		255	18.5	16	8,107	-40.3		313	36.5	31	8,539	-27.4		255	28.0
300----	31	9,617	-35.6		261	19.0	16	9,141	-47.8		312	35.6	31	9,628	-36.1		256	32.4
250----	31	10,859	-45.4		265	23.3	16	10,326	-54.2		303	35.9	31	10,868	-45.5		256	38.7
200----	31	12,311	-56.1		262	29.1	16	11,748	-56.0		284	39.6	31	12,322	-55.4		255	44.1
175----	31	13,149	-61.4		259	32.8	15	12,586	-56.8		281	43.1	31	13,164	-60.0		254	45.7
150----	30	14,093	-65.8		250	29.3	15	13,562	-57.2		273	39.2	31	14,117	-64.1		252	45.9
125----	30	15,191	-69.4		248	28.8	15	14,709	-59.2		276	38.7	31	15,218	-69.8		252	37.9
100----	30	16,511	-73.4		240	19.0	15	16,103	-59.9		278	32.3	30	16,529	-75.5		248	25.3
80-----	30	17,809	-74.6		230	11.7	15	17,496	-60.0		278	26.4	30	17,812	-77.3		242	15.7
70-----	29	18,594	-72.5		234	5.6	15	18,335	-59.8		277	25.1	30	18,586	-74.9		238	8.4
60-----	29	19,506	-67.8		235	2.3	15	19,293	-59.7		282	24.3	30	19,488	-69.5		230	5.2
50-----	28	20,620	-62.4		284	2.9	14	20,433	-59.2		283	19.6	30	20,592	-63.6		319	2.9
40-----	27	22,013	-57.3		289	.6	14	21,832	-59.1		281	18.8	30	21,981	-57.8		24	1.7
30-----	26	23,860	-50.9		357	2.1	14	23,643	-57.7		275	21.8	25	23,811	-53.3		77	8.7
25-----	24	25,055	-48.0		43	4.5	13	24,789	-57.3		274	31.1	25	24,991	-50.8		84	15.9
20-----	21	26,539	-45.6		72	6.2	9	26,192	-57.8				25	26,452	-48.1		93	13.0
15-----	17	28,472	-42.1		46	7.8							24	28,359	-45.6		115	11.5
10-----	6	31,264	-38.4										18	31,064	-42.6		139	19.2
7------													16	33,509	-38.4		117	22.9
5------													12	35,852	-33.5		130	22.9
4------													5	37,410	-30.9			

Standard pressure surface (mb.)	2/ SWAN ISLAND, W. I. (1015 MB.)						3/ MERIDA, MEXICO (1014 MB.)					
	Number of observations	Dynamic height	Temperature	Relative humidity	Wind Direction	Wind Speed	Number of observations	Dynamic height	Temperature	Relative humidity	Wind Direction	Wind Speed
SURFACE	30	10	24.9	81	64	7.8	28	11	18.3	96	107	6.4
1,000--	30	142	24.1	79	63	11.9	28	132	20.8	87	114	11.9
950----	30	587	20.9	78	72	15.5	28	573	19.7	76	137	19.6
900----	30	1,056	17.6	74	85	15.7	28	1,042	17.5	73	146	15.0
850----	30	1,543	14.6	70	95	14.0	28	1,530	15.5	57	156	8.0
800----	30	2,054	12.0	62	95	13.6	28	2,043	13.2	44	163	6.8
750----	30	2,590	9.4	47	100	13.6	28	2,571	11.3		153	3.3
700----	30	3,164	7.3	35	103	12.0	28	3,159	8.9		164	2.1
650----	30	3,769	5.0		110	10.5	28	3,755	5.4		230	3.7
600----	30	4,421	2.2		119	10.3	28	4,419	1.7		266	6.0
550----	30	5,110	- 1.6		121	8.9	28	5,099	- 2.4		275	7.6
500----	30	5,872	- 6.1		129	5.6	28	5,866	- 7.4		272	10.1
450----	30	6,681	-11.5		114	4.7	28	6,668	-12.9		260	14.2
400----	30	7,582	-18.0		161	.6	28	7,568	-19.5		260	20.4
350----	29	8,567	-25.5		277	5.6	28	8,545	-27.1		258	24.1
300----	29	9,665	-34.2		280	12.2	28	9,637	-35.1		255	29.0
250----	29	10,916	-43.4		269	23.5	28	10,884	-44.3		256	35.4
200----	29	12,384	-53.9		268	35.2	28	12,344	-54.7		255	38.1
175----	28	13,231	-58.8		264	34.6	28	13,188	-59.3		252	35.4
150----	28	14,187	-64.1		268	29.0	28	14,142	-64.4		258	29.0
125----	25	15,290	-70.2		255	22.2	28	15,241	-69.9		256	24.5
100----	25	16,594	-76.5		238	12.6	28	16,550	-75.4		263	13.6
80-----	24	17,871	-77.2		182	5.6	28	17,831	-77.6		271	2.9
70-----	24	18,642	-75.7		138	3.5	28	18,597	-75.7		9	1.4
60-----	23	19,543	-70.5		180	.8	27	19,498	-71.6		65	6.2
50-----	23	20,643	-64.1		55	1.9	25	20,590	-66.2		89	8.5
40-----	23	22,029	-58.7		70	5.2	23	21,958	-60.1		75	10.1
30-----	20	23,863	-53.9		77	11.7	18	23,772	-55.8		80	15.7
25-----	19	25,042	-51.2		85	15.2	16	24,941	-53.3		86	17.1
20-----	16	26,495	-48.3		90	16.5	15	26,387	-50.6		91	11.1
15-----	5	28,357	-47.4				10	28,279	-47.1			
10-----							5	30,966	-42.8			
7------												
5------												
4------												

Standard pressure surface (mb.)	* 4/ CANTON IS., PACIFIC AREA (1010 MB.)						4/ MERIDA, MEXICO (1014 MB.)						5/ MERIDA, MEXICO (1014 MB.)					
	Number of observations	Dynamic height	Temperature	Relative humidity	Wind Direction	Wind Speed	Number of observations	Dynamic height	Temperature	Relative humidity	Wind Direction	Wind Speed	Number of observations	Dynamic height	Temperature	Relative humidity	Wind Direction	Wind Speed
SURFACE	30	4	26.6	86	86	8.2	30	11	21.8	90	93	6.6	31	11	20.9	92	89	6.2
1,000--	30	88	26.1	85	87	9.9	30	132	22.0	87	96	10.3	31	132	22.1	86	95	11.3
950----	30	536	23.3	84	87	15.9	30	570	20.0	82	119	17.9	31	575	20.9	78	119	18.5
900----	30	1,012	20.4	81	85	19.8	30	1,045	18.8	69	127	14.0	31	1,046	19.2	62	118	17.1
850----	30	1,505	17.6	78	86	20.8	30	1,536	17.0	62	125	7.2	31	1,536	16.4	56	110	11.9
800----	30	2,022	15.3	69	84	20.4	30	2,051	14.0	57	122	5.2	31	2,050	13.7	48	105	6.4
750----	30	2,571	13.2	59	86	18.5	30	2,589	11.0	50	140	3.5	31	2,584	10.9	39	106	5.8
700----	30	3,146	10.0	54	83	14.8	30	3,167	7.7	42	292	.8	31	3,165	8.1		102	5.1
650----	30	3,756	6.3	50	82	12.4	30	3,765	4.1	41	300	2.5	31	3,760	5.1		89	5.4
600----	30	4,412	2.5	47	83	6.8	30	4,421	.1	40	294	6.2	31	4,423	1.5		47	6.2
550----	30	5,104	- 1.4	41	81	3.5	30	5,101	- 4.4	41	282	9.5	31	5,103	- 2.9		17	7.2
500----	30	5,865	- 5.7	36	250	.6	30	5,858	- 9.0		270	11.9	31	5,867	- 7.4		354	7.6
450----	30	6,681	-10.4	30	257	2.9	30	6,662	-14.5	40	264	16.7	31	6,674	-12.7		322	8.7
400----	30	7,581	-16.7		252	5.2	30	7,550	-20.6	40	253	22.5	31	7,570	-18.8		298	11.9
350----	30	8,566	-24.0		238	6.4	30	8,524	-27.2	39	249	32.6	31	8,551	-25.9		287	16.3
300----	30	9,675	-32.6		225	9.5	30	9,617	-35.2		247	35.8	31	9,649	-34.0		277	23.9
250----	30	10,934	-42.6		204	13.0	30	10,861	-44.8		255	43.3	31	10,900	-43.3		267	27.0
200----	30	12,403	-54.1		214	16.7	30	12,319	-55.0		251	51.3	31	12,367	-54.1		272	29.9
175----	30	13,248	-60.1		223	18.3	30	13,163	-59.9		249	49.4	31	13,213	-59.3		268	30.5
150----	29	14,195	-67.2		234	17.9	30	14,113	-65.1		252	46.4	31	14,166	-64.7		272	29.9
125----	29	15,274	-75.0		262	23.5	29	15,210	-69.1		255	36.7	31	15,266	-69.6		275	23.1
100----	29	16,544	-81.7		261	25.8	29	16,527	-73.9		259	27.8	31	16,585	-72.7		293	11.9
80-----	26	17,801	-76.6		262	20.0	29	17,823	-74.6		262	16.5	31	17,892	-72.4		64	3.1
70-----	25	18,579	-71.7		267	19.8	29	18,604	-71.8		250	6.4	31	18,683	-69.8		75	9.3
60-----	25	19,496	-67.3		271	23.5	29	19,521	-67.9		165	3.3	31	19,609	-65.1		86	12.6
50-----	24	20,604	-64.0		274	26.2	28	20,631	-62.3		108	8.2	31	20,733	-60.1		89	16.3
40-----	24	21,981	-60.7		276	24.1	28	22,032	-55.5		79	10.3	31	22,145	-54.4		81	16.9
30-----	24	23,789	-56.5		100	3.3	28	23,888	-50.8		77	14.6	28	24,001	-50.3		85	21.2
25-----	24	24,955	-53.1		90	27.4	25	25,080	-48.2		79	14.6	25	25,198	-47.4		88	25.1
20-----	24	26,403	-50.2		91	49.2	16	26,563	-45.6		98	17.1	13	26,669	-44.8		84	22.5
15-----	23	28,301	-45.6		87	57.7							5	28,588	-40.9			
10-----	20	31,037	-40.7		90	67.0												
7------	17	33,479	-39.2		90	63.7												
5------	7	35,798	-34.5															

* Corrected data
1/ December 1961
2/ January 1962
3/ February 1962
4/ April 1962
5/ May 1962

Also see reference notes with current data.

SOLAR RADIATION DATA

Solar radiation intensities, tabulated in langleys per minute on a surface normal to the direction of the sun.

DELAYED DATA

Date	Sun's zenith distance								
	A M				*	P M			
	78.7°	75.7°	70.7°	60.0°		60.0°	70.7°	75.7°	78.7°
	OMAHA, NEBR.								
	Air mass								
	4.78	3.82	2.87	1.91	*	1.91	2.87	3.82	4.78
Dec. 1961									
4	----	----	----	----	----	----	----	†	S 0.76
5	S 0.69	S 0.82	S 0.95	----	S 1.08	----	----	----	----
6	.77	.86	.99	----	----	----	----	----	----
7	.80	.93	1.04	----	1.14	----	S 1.05	S 0.84	S .75
10	M .69	.79	S .94	----	S 1.11	----	----	----	----
12	S .76	S .85	S 1.01	----	S 1.14	----	S 1.07	S .94	S .80
13	K .64	S .89	S 1.04	----	S 1.17	----	M 1.04	M .83	M .68
14	----	----	----	----	H 1.14	----	S 1.06	S .93	S .80
29	.77	1.00	1.12	----	1.27	----	S 1.22	S 1.06	S .96
Averages	0.77	0.88	1.01	----	1.15	----	1.09	0.92	0.79

OMAHA, NEBR.

	Air mass								
	4.78	3.82	2.87	1.91	*	1.91	2.87	3.82	4.78
Mar. 1962									
18	No observations 1-18; new pyrheliometer installed March 18.								
21	----	M 0.67	M 0.80	M 0.98	M 1.09	0.97	0.82	0.72	0.61
27	S 0.46	S .54	M .72	M .93	----	----	----	----	----
28	S .50	S .61	S .80	S .98	----	----	----	----	----
Averages	0.48	0.60	0.78	0.96	1.09	0.97	0.82	0.72	0.61

OMAHA, NEBR.

	Air mass								
	4.78	3.82	2.87	1.91	*	1.91	2.87	3.82	4.78
Apr. 1962									
2	H 0.54	H 0.69	H 0.77	H 1.01	----	H 0.95	H 0.78	H 0.64	----
5	S .50	S .65	S .81	S 1.00	S 1.14	S .96	H .78	H .61	----
6	----	----	----	----	----	M 1.01	M .81	M .67	----
12	----	----	----	----	----	S .97	S .80	S .67	S 0.59
13	----	S .66	S .93	1.00	----	----	----	----	----
14	----	----	----	S .87	----	M .82	M .61	M .44	M .34
15	----	----	----	M 1.00	M 1.18	M .80	M .69	----	----
16	----	----	----	----	----	HM .73	HI .48	HI .34	DM .23
17	S .54	S .65	S .80	M .98	M 1.11	M .88	M .67	M .44	M .38
18	----	.55	----	.91	----	M .82	M .61	M .31	S .25
19	M .50	M .59	----	----	----	----	----	----	----
20	----	----	----	----	HM .99	----	----	----	----
22	----	----	----	----	M 1.04	S .89	S .77	S .66	S .57
23	M .40	M .51	M .67	M .84	M 1.06	----	----	----	----
24	----	S .67	S .78	S 1.00	S 1.15	S 1.03	S .77	S .65	M .54
25	S .63	S .69	S .82	S 1.00	S 1.09	S .89	S .84	S .65	S .54
26	H .49	H .59	H .75	H .90	----	----	----	----	----
Averages	0.51	0.63	0.79	0.96	1.09	0.90	0.72	0.55	0.43

Date	Sun's zenith distance								
	A. M.				*	P. M.			
	78.7°	75.7°	70.7°	60.0°		60.0°	70.7°	75.7°	78.7°
	OMAHA, NEBR.								
	Air mass								
	4.78	3.82	2.87	1.91	*	1.91	2.87	3.82	4.78
Jan. 1962									
2	S 0.86	S 0.96	S 1.11	----	S 1.24	----	1.13	0.97	0.77
10	S .84	S .96	S 1.08	----	S 1.20	----	‡	I .68	I .52
15	S .82	S .93	S 1.05	----	----	----	----	----	----
16	S .92	S 1.03	S 1.16	----	S 1.32	----	S 1.18	S .99	S .86
23	S .86	S 1.00	S 1.12	----	S 1.24	----	----	----	----
24	----	M .91	S 1.12	----	S 1.29	----	S 1.10	S 1.05	S .84
26	----	----	----	----	M 1.14	----	M .94	M .77	M .58
27	S .84	S .93	S 1.06	----	----	----	----	----	----
28	----	----	----	----	S 1.16	----	----	----	----
31	----	----	----	----	1.13	----	----	----	----
Averages	0.86	0.95	1.10	----	1.22	----	1.09	0.88	0.72

TUCSON, ARIZ.

	Air mass								
	4.56	3.65	2.74	1.83	*	1.83	2.74	3.65	4.56
Mar. 1962									
1	----	----	----	----	----	1.34	1.19	1.08	0.98
4	0.95	1.05	1.18	1.32	----	----	----	----	----
12	.86	.96	----	1.28	----	----	1.09	.95	.82
13	1.05	1.12	----	----	----	----	----	1.04	.90
14	.99	.95	----	----	----	----	----	1.05	----
15	.96	1.08	----	----	----	----	1.16	1.03	.91
18	1.04	1.12	1.23	1.39	----	----	1.22	1.11	1.00
22	.72	.84	.96	1.15	----	----	----	----	----
24	.87	.98	1.12	----	----	----	1.03	.89	.78
25	.85	.97	1.11	1.26	----	----	----	.90	.78
26	.95	1.05	1.17	----	----	----	1.03	.90	.78
28	----	----	----	----	----	----	----	.85	.97
30	.72	.84	.97	----	----	----	----	----	----
31	.78	.91	1.06	----	----	----	----	----	----
Averages	0.90	0.99	1.10	1.28	----	1.34	1.12	0.98	0.88

H	Haze
I	Intense haze - indeterminable
K	Smoke
†	Wind Mast
‡	Shadow

See reference notes with current data.

SOLAR RADIATION DATA

Daily totals and weekly averages of solar radiation (direct and diffuse) received on a horizontal surface, tabulated in langleys.

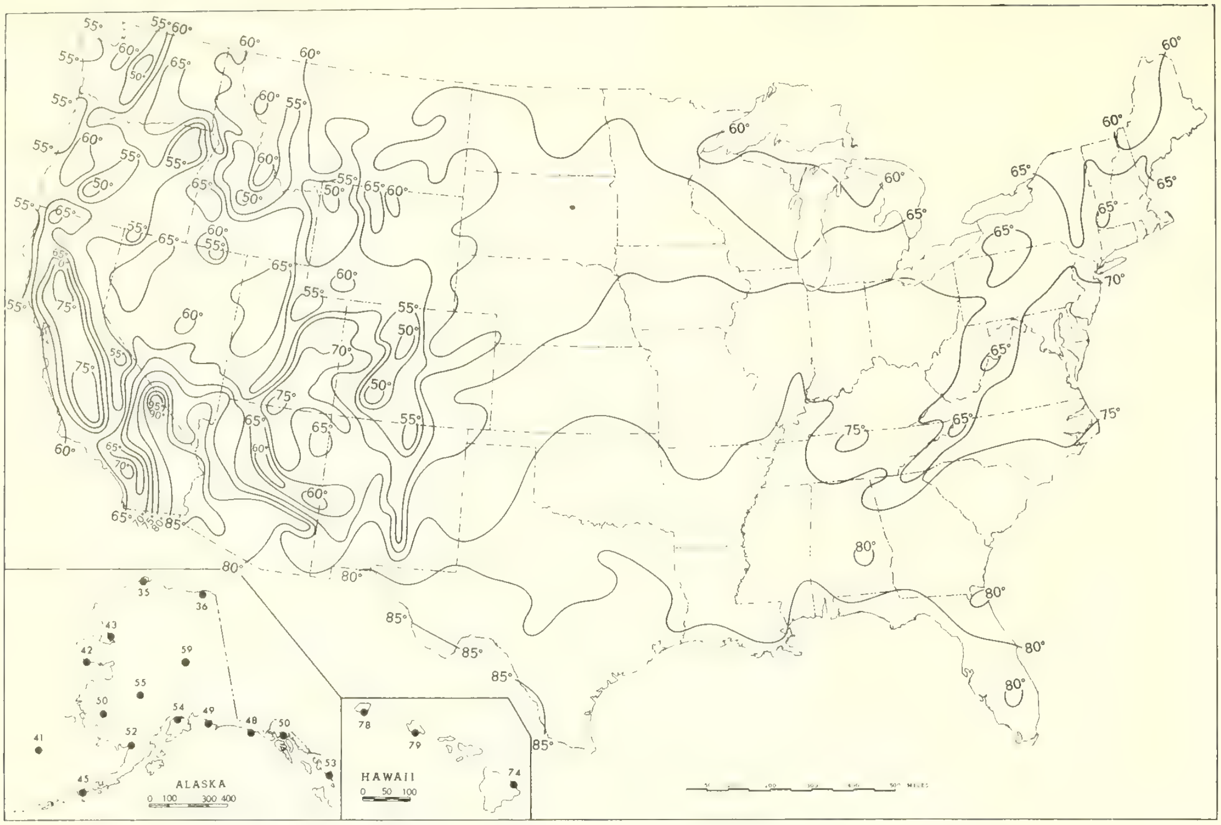
DELAYED DATA

	Inyokern China Lake, Calif.		Canton Island, Pacific Area	Davis, Calif.		Ames, Iowa	Nashville, Tenn.		Swan Island, W. I.		Davis, Calif.	Inyokern China Lake, Calif.	Swan Island, W. I.	* Tucson, Ariz.		Corvalis, Oreg.	Davis, Calif.	Inyokern China Lake, Calif.	Lemont, Ill.		Ames, Iowa
1961		Dec.			1962 Jan.			Feb.		Mar.					Apr.					May	
Nov. 5-----	452	3	658	248	1	115	25	5	462	5	105	330	495	482	2	354	519	727	299	7	---
Nov. 6-----	454	4	627	265	2	241	114	6	476	6	215	437	442	311	3	475	554	726	531	8	---
Nov. 7-----	439	5	692	114	3	196	271	7	408	7	266	587	504	155	4	170	573	733	206	9	270
Nov. 8-----	432	6	677	256	4	133	176	8	443	8	485	618	533	328	5	315	604	734	88	10	193
Nov. 9-----	428	7	676	228	5	127	8	9	490	9	506	638	528	428	6	200	612	733	486	11	375
Nov. 10-----	414	8	648	262	6	148	22	10	475	10	424	635	538	538	7	294	607	719	232	12	381
Nov. 11-----	344	9	670	240	7	155	127	11	448	11	499	645	516	434	8	340	604	740	416	13	586
Average--------	423		664	230		159	106		457		357	556	508	382		307	582	730	322		355
Nov. 12-----	403	10	709	170	8	184	167	12	438	12	530	651	547	566	9	453	645	769	564	14	527
Nov. 13-----	417	11	684	257	9	180	65	13	479	13	520	666	541	588	10	610	653	762	568	15	611
Nov. 14-----	407	12	679	226	10	255	287	14	467	14	443	654	546	583	11	625	643	794	393	16	593
Nov. 15-----	402	13	---	71	11	183	257	15	489	15	327	650	535	598	12	608	609	779	207	17	581
Nov. 16-----	385	14	575	229	12	100	323	16	472	16	378	642	501	510	13	530	548	743	576	18	469
Nov. 17-----	399	15	626	114	13	187	300	17	476	17	346	629	532	594	14	589	653	820	624	19	688
Nov. 18-----	332	16	630	249	14	119	281	18	407	18	556	448	136	602	15	568	647	763	588	20	646
Average--------	392		651	188		172	240		461		443	620	477	577		569	628	776	503		588
Nov. 19-----	366	17	642	64	15	252	67	19	394	19	525	401	525	538	16	650	669	751	625	21	592
Nov. 20-----	100	18	667	76	16	291	300	20	484	20	332	595	556	322	17	671	670	798	383	22	399
Nov. 21-----	361	19	675	95	17	188	280	21	360	21	402	680	598	398	18	651	386	762	637	23	331
Nov. 22-----	377	20	671	119	18	157	47	22	512	22	329	617	559	594	19	394	415	---	606	24	697
Nov. 23-----	371	21	684	205	19	207	25	23	477	23	555	704	503	447	20	254	665	792	650	25	446
Nov. 24-----	169	22	678	266	20	177	59	24	377	24	582	681	534	620	21	559	660	830	546	26	272
Nov. 25-----	56	23	636	242	21	190	49	25	473	25	517	669	549	617	22	547	660	829	332	27	354
Average--------	257		665	152		209	118		440		463	621	546	505		532	589	794	540		441
Nov. 26-----	342	24	670	100	22	233	13	26	461	26	507	655	513	622	23	605	638	---	680	28	167
Nov. 27-----	346	25	670	76	23	291	253	27	515	27	552	712	530	453	24	551	650	---	629	29	513
Nov. 28-----	359	26	641	203	24	281	22	28	492	28	566	481	545	614	25	506	673	812	646	30	709
Nov. 29-----	248	27	591	93	25	270	31	Mar. 1	408	29	448	573	532	540	26	264	653	809	631	31	733
Nov. 30-----	234	28	663	54	26	207	163	2	471	30	564	738	552	614	27	427	157	730	562	1	614
Dec. 1-----	220	29	672	52	27	260	59	3	528	31	556	---	548	640	28	469	494	853	131	2	493
Dec. 2-----	283	30	674	60	28	278	330	4	485	Apr. 1	508	---	531	636	29	503	722	857	326	3	90
		31	650	59																	
Average--------	290					260	124		480		529	632	536	588		475	570	812	515		474
		Avg.	654	87																	
					29	237	325								30	319	710	866	360		
					30	154	252								May 1	187	695	850	91		
					31	175	310								2	671	690	830	423		
					Feb. 1	---	149								3	485	641	841	544		
					2	---	308								4	707	720	842	582		
					3	---	322								5	555	693	850	423		
					4	---	329								6	199	548	839	567		
					Avg.	---	285								Avg.	446	671	845	427		

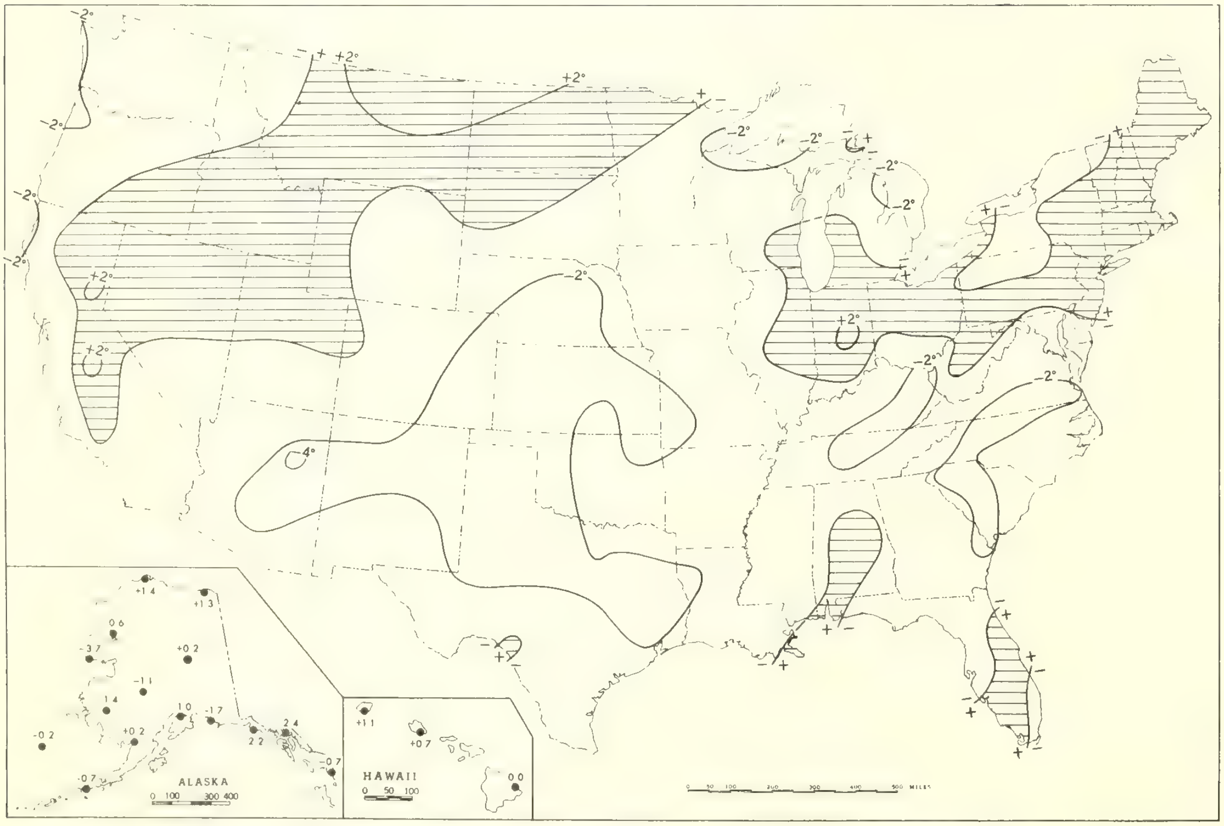
Note.--Langley is the unit used to denote one gram calorie per square centimeter.
Values in parentheses are interpolated.

* Corrected data

Chart I. A. Average Temperature (°F.) at Surface, June 1962.



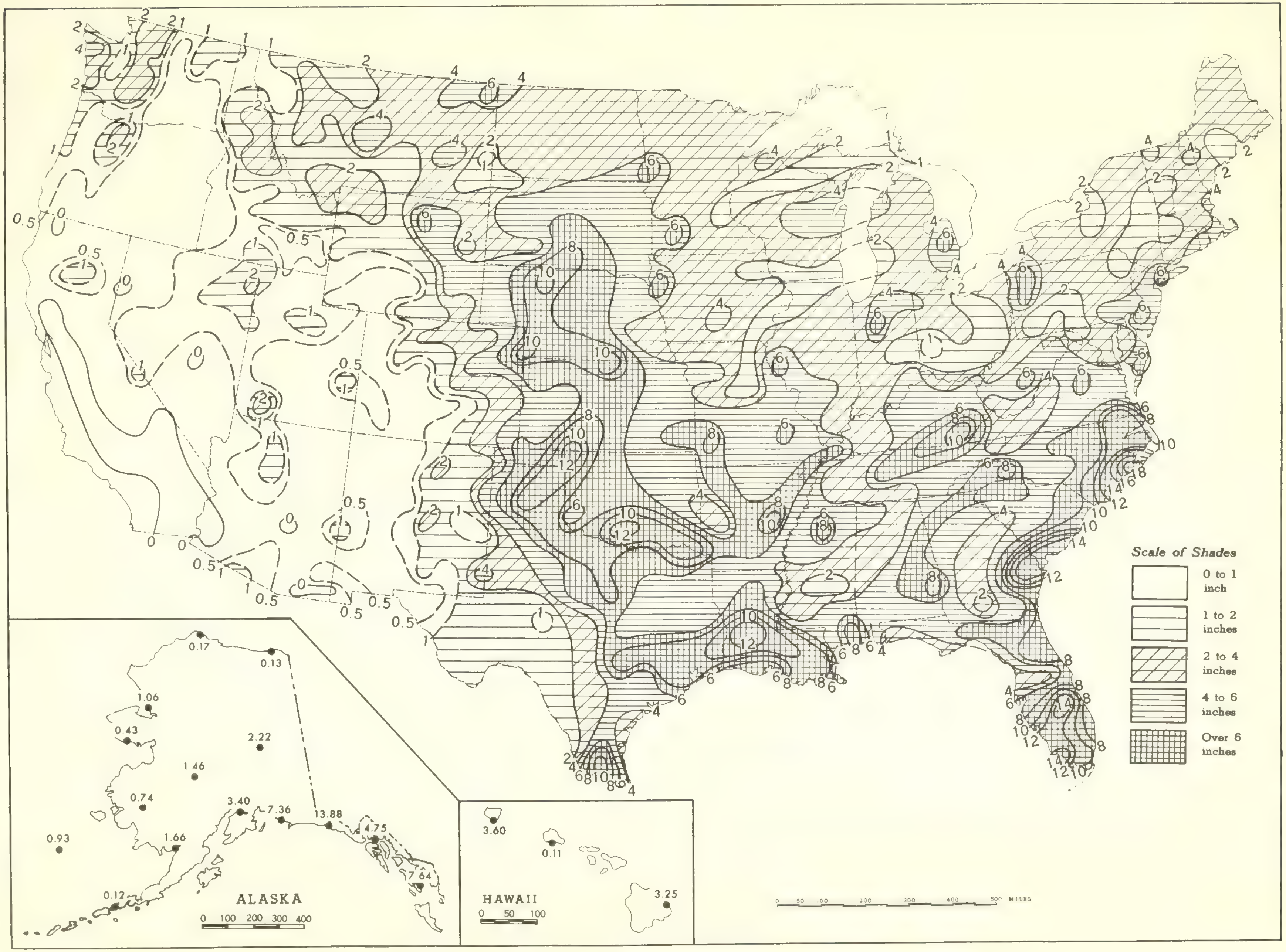
B. Departure of Average Temperature from Normal (°F.), June 1962.



A. Based on reports from over 870 Weather Bureau and cooperative stations. The monthly average is half the sum of the monthly average maximum and monthly average minimum, which are the average of the daily maxima and daily minima, respectively.

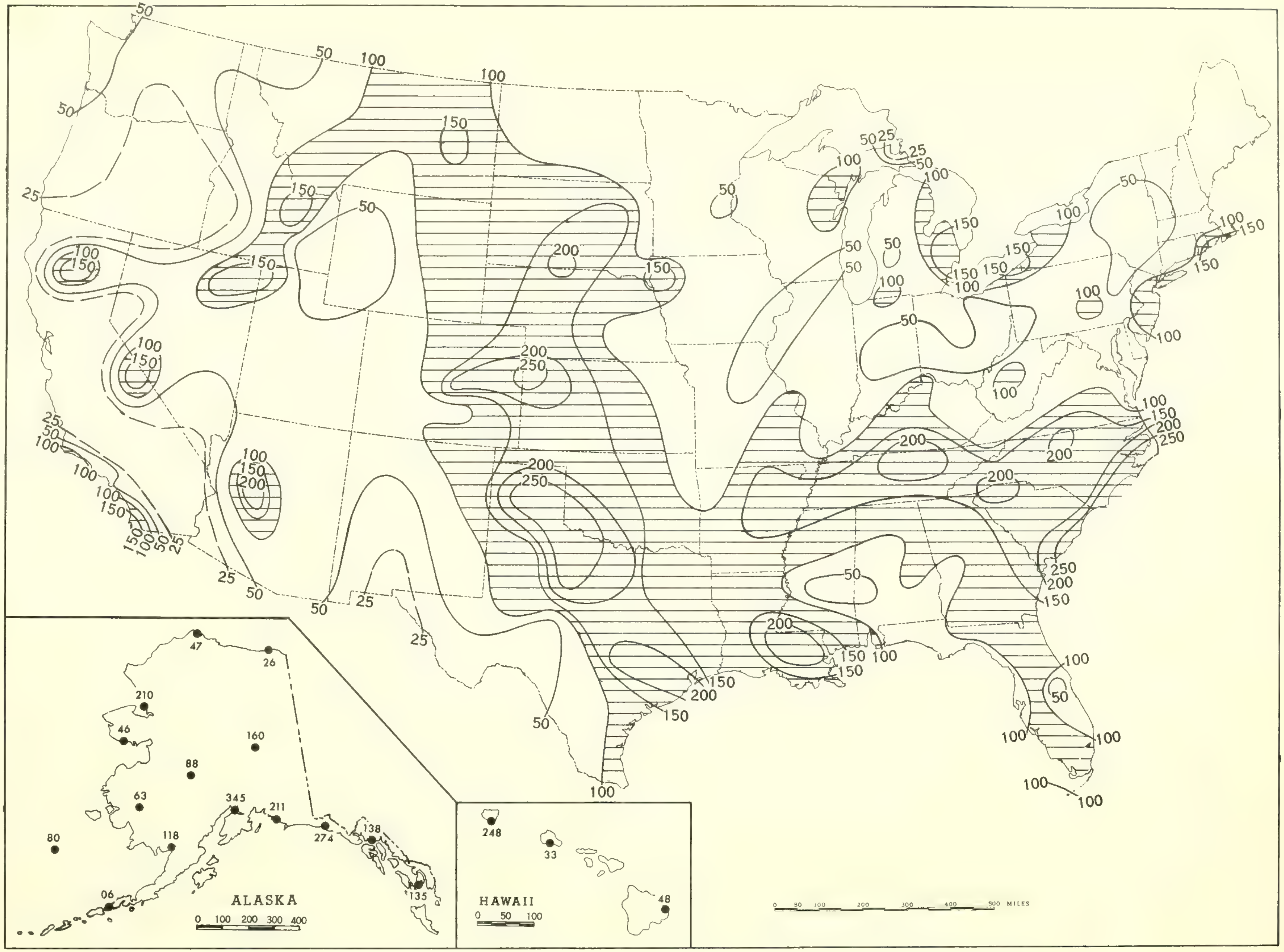
B. Departures from normal are based on the 30-yr. normals (1931-60) for first-order Weather Bureau stations.

Chart II. Total Precipitation (Inches), June 1962.



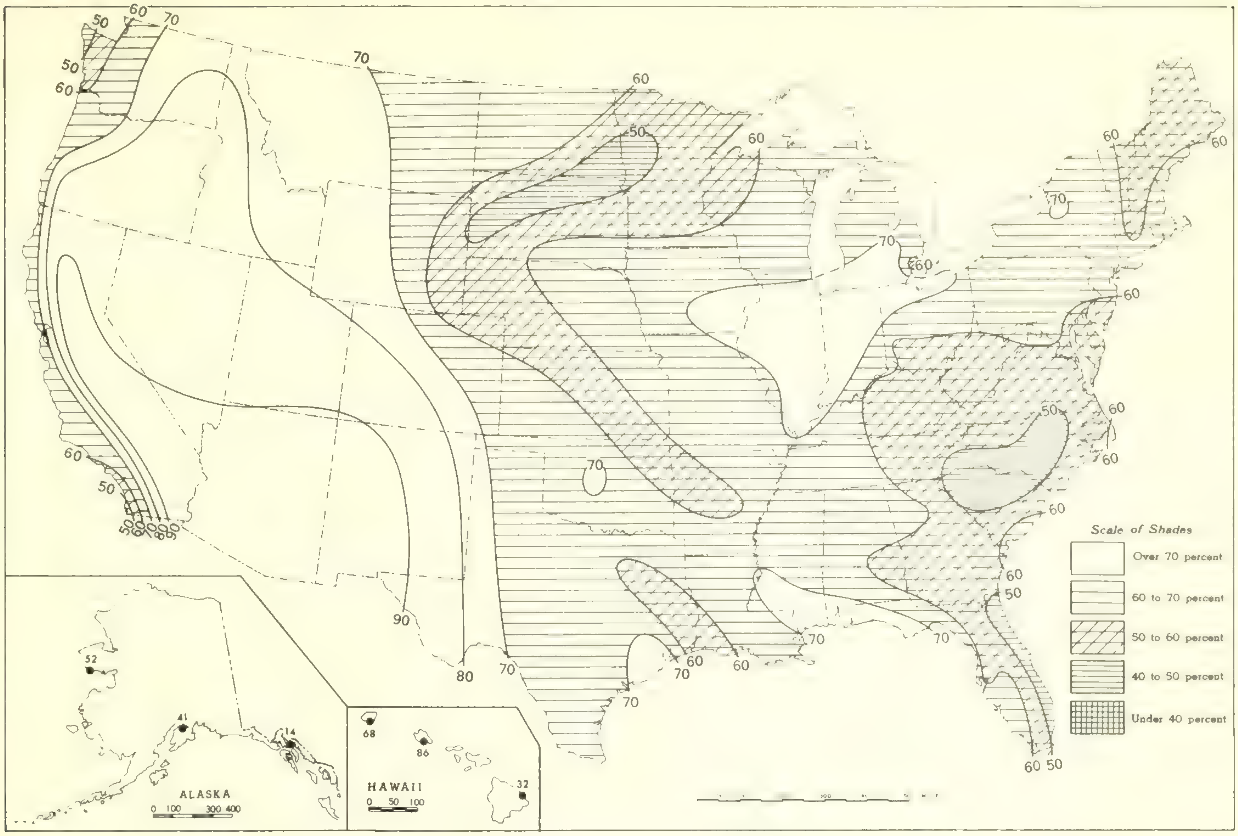
Based on daily precipitation records at about 870 Weather Bureau and cooperative stations.

Chart III. Percentage of Normal Precipitation, June 1962.

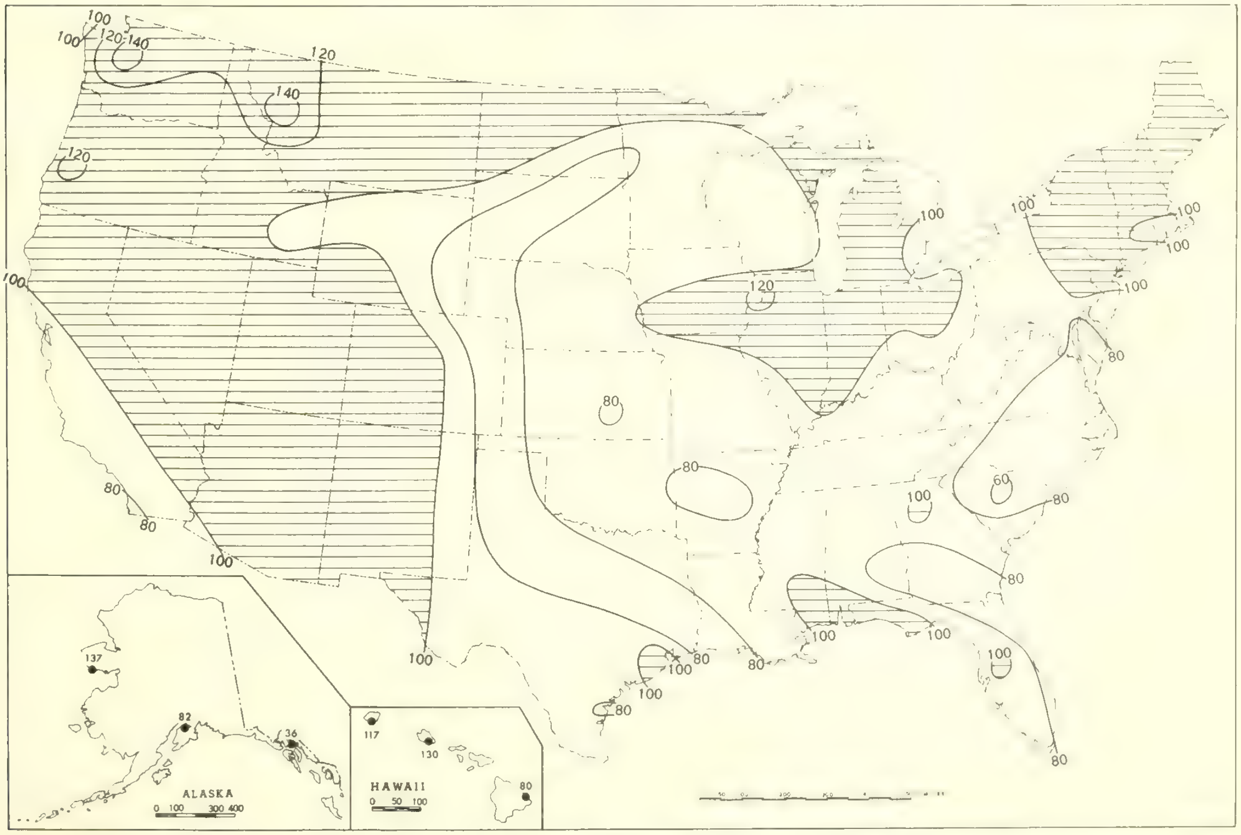


Normal monthly precipitation amounts are computed from 30-yr. normals (1931-60) for first-order Weather Bureau stations.

Chart VI. A. Percentage of Possible Sunshine, June 1962.

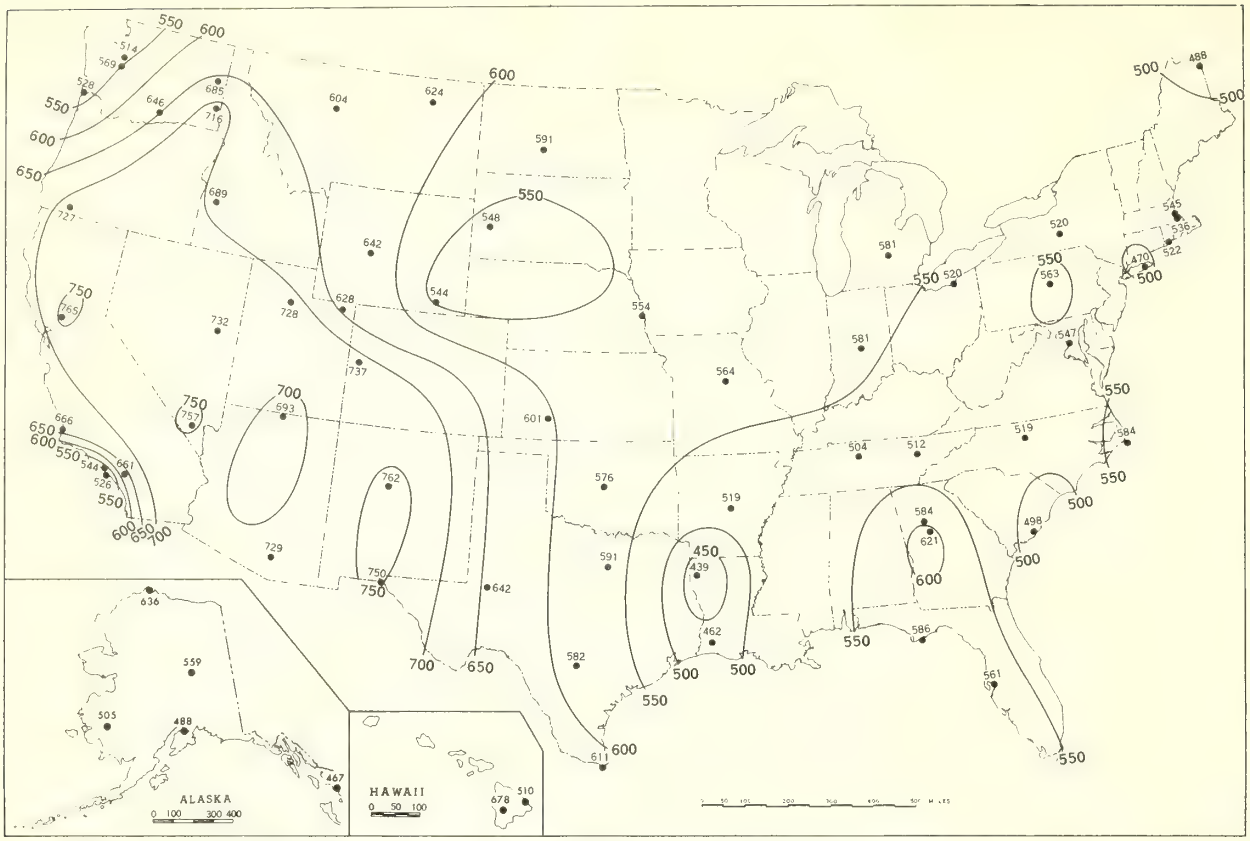


B. Percentage of Mean Monthly Sunshine, June 1962.

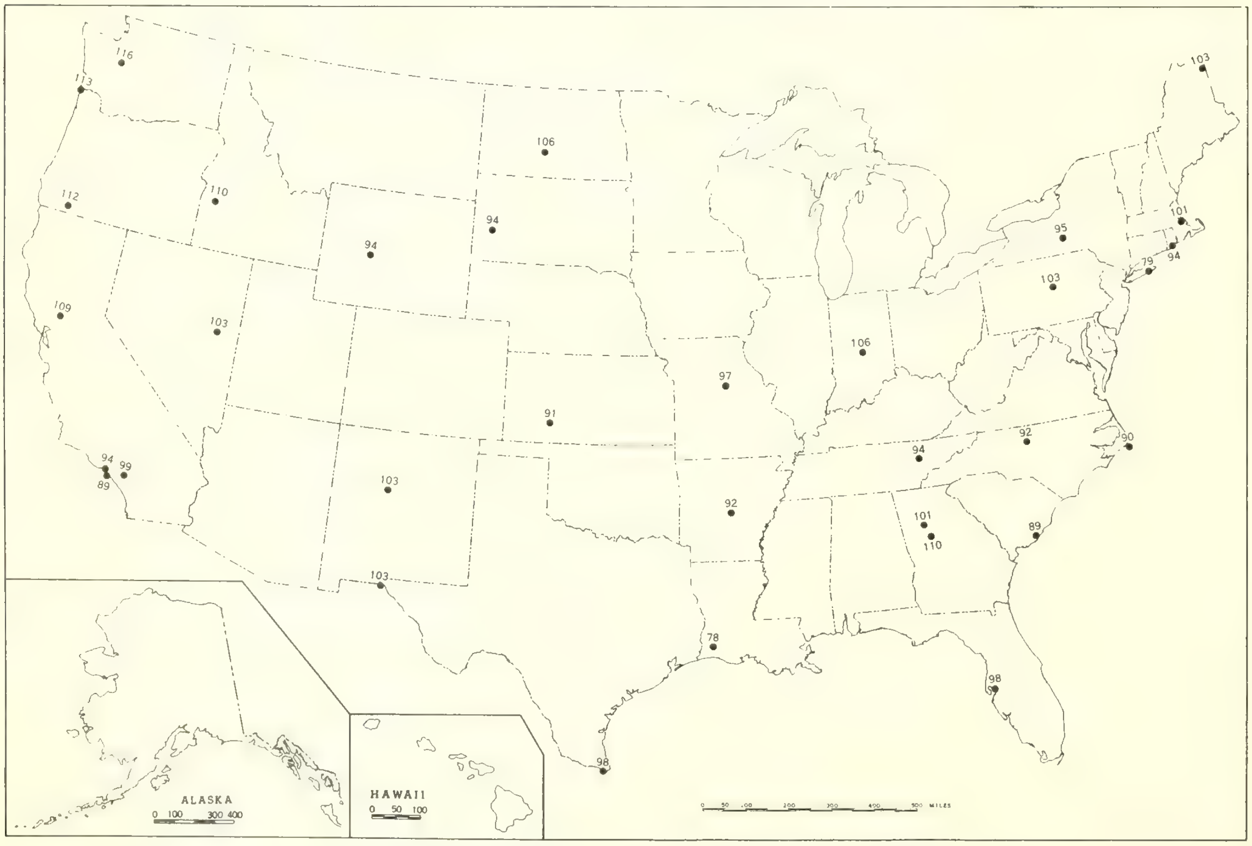


A. Computed from total number of hours of observed sunshine in relation to total number of possible hours of sunshine during month. B. Means are computed for stations having at least 10 years of record.

Chart VII. A. Average Daily Values of Solar Radiation, Langleys, June 1962.



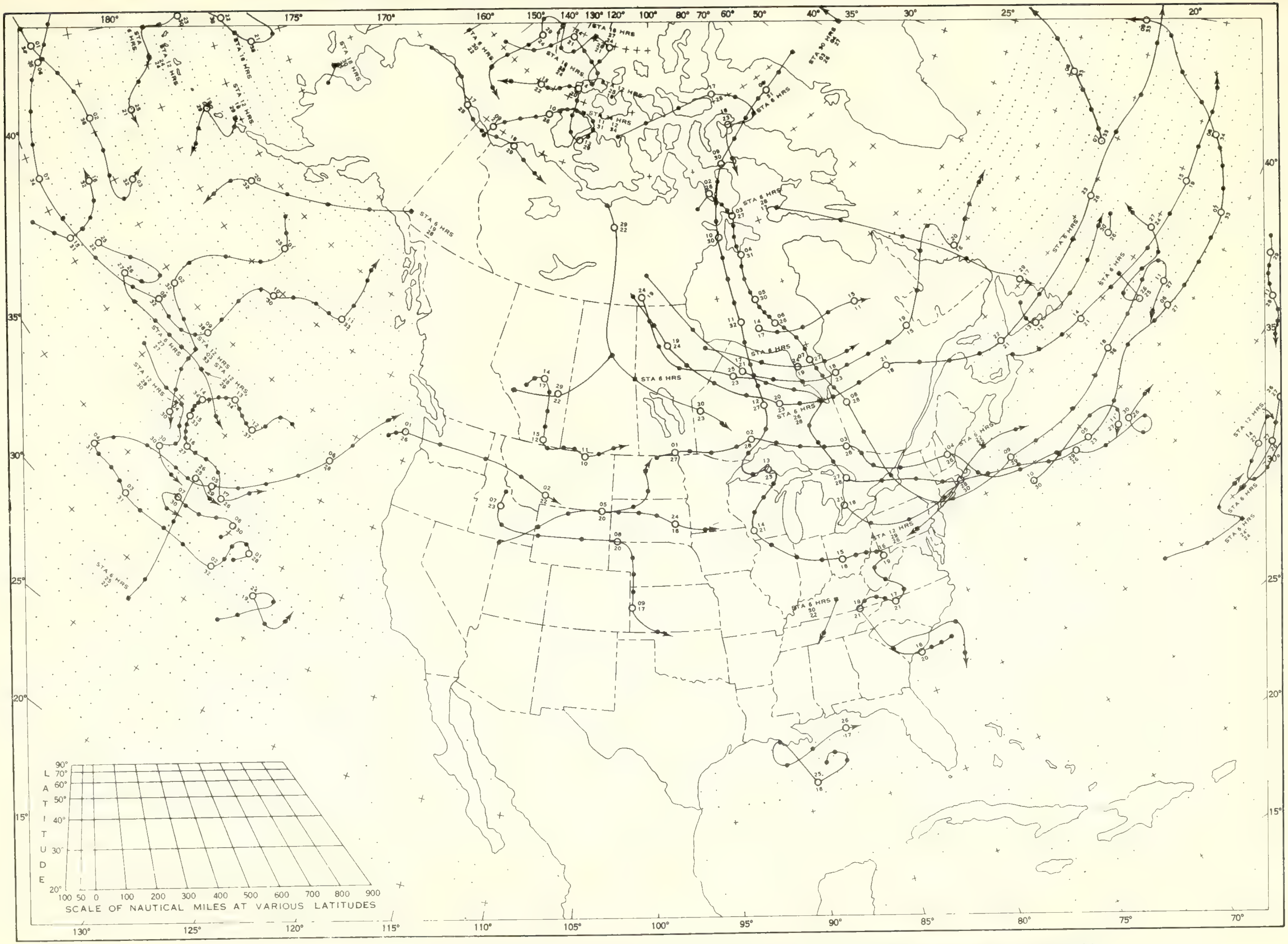
B. Percentage of Mean Daily Solar Radiation, June 1962.



A. Mean daily solar radiation, direct + diffuse, received on a horizontal surface in langleys (1 langley = 1 gm. cal. cm. $^{-2}$) and recorded in International Pyrheliometer Scale of 1956.

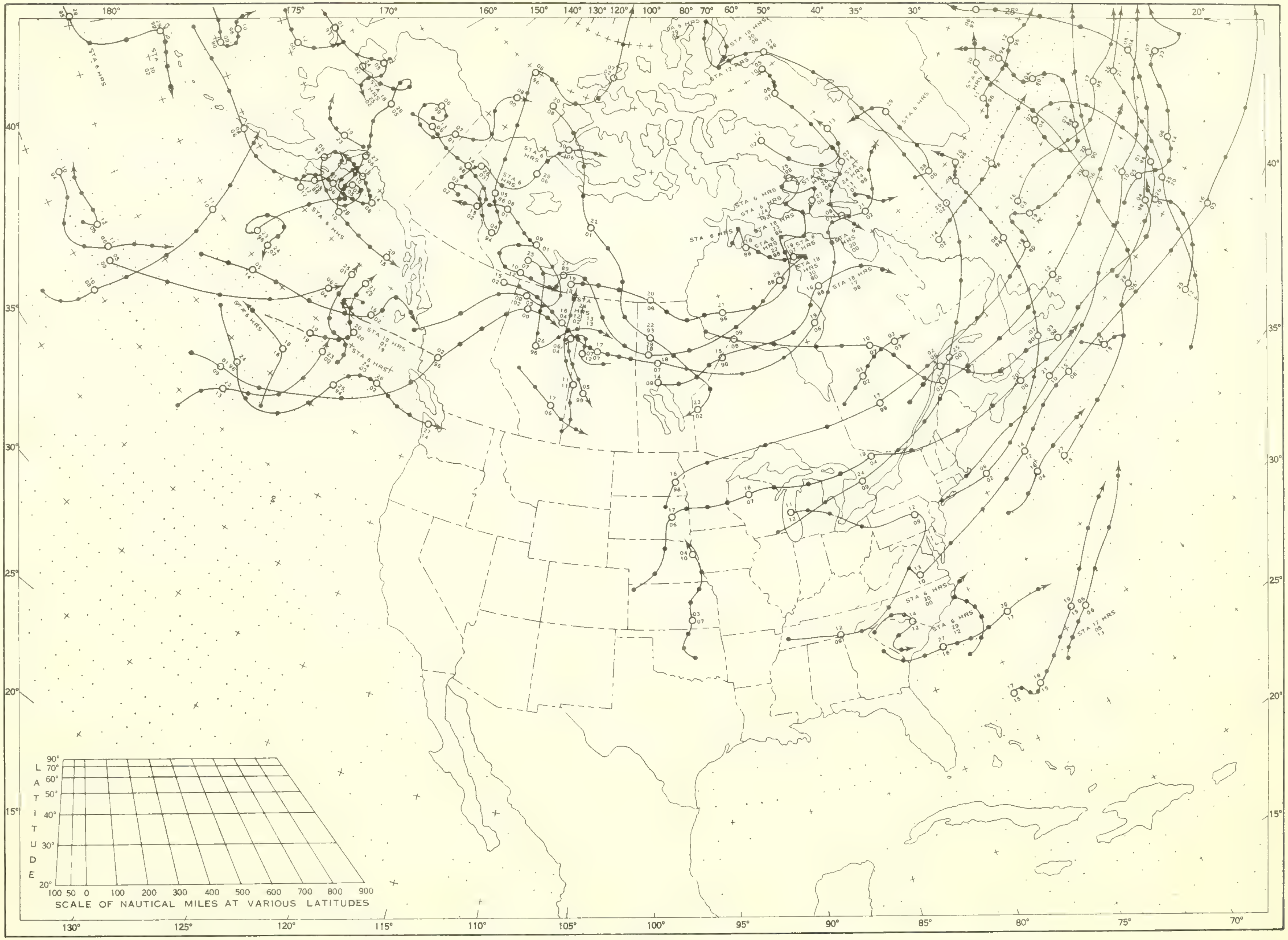
B. Percentage of the mean based on the period 1953-57, and corrected to the International Pyrheliometer Scale of 1956.

Chart VIII. Tracks of Centers of Anticyclones at Sea Level, June 1962.



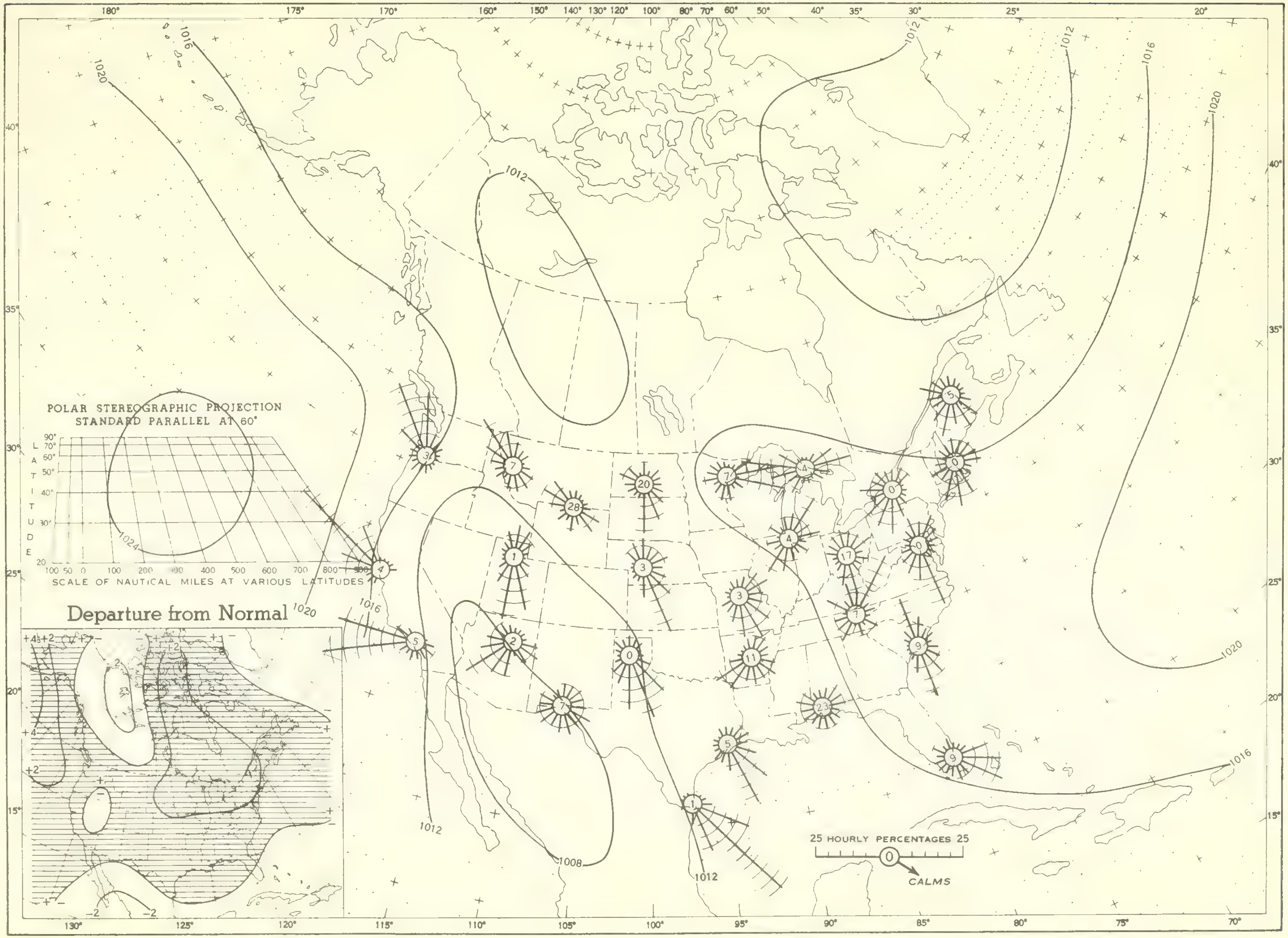
Circle indicates position of center at 7:00 a. m. E. S. T. Figure above circle indicates date, figure below, pressure to nearest millibar. Dots indicate intervening 6-hourly positions. Squares indicate position of stationary center for period shown. Dashed line in track indicates reformation at new position. Only those centers which could be identified for 24 hours or more are included.

Chart IX. Tracks of Centers of Cyclones at Sea Level, June 1962.



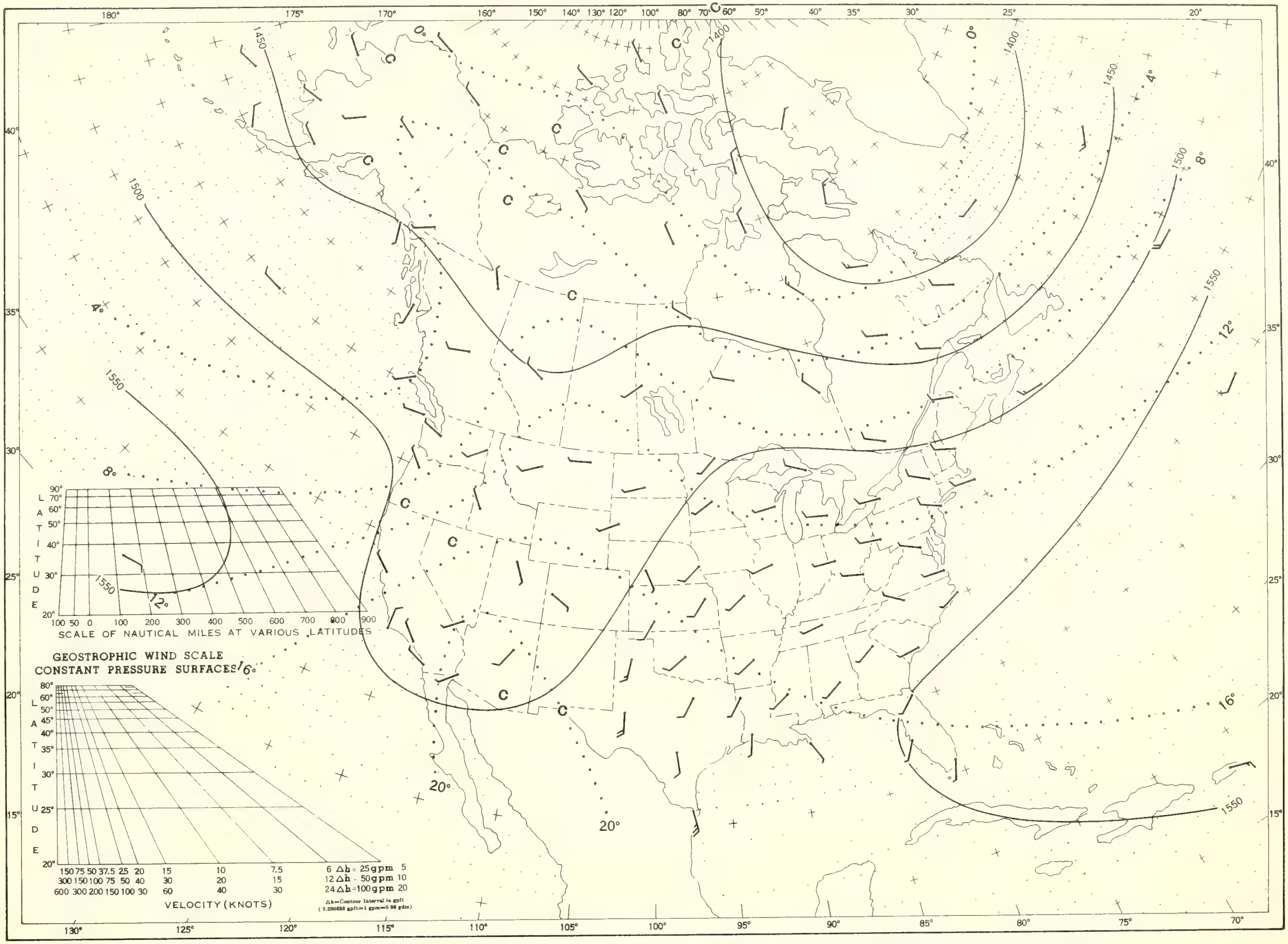
Circle indicates position of center at 7:00 a. m. E. S. T. See Chart VIII for explanation of symbols.

Chart X. Average Sea Level Pressure (mb.) and Surface Windroses, June 1962. Inset: Departure of Average Pressure (mb.) from Normal, June 1962.



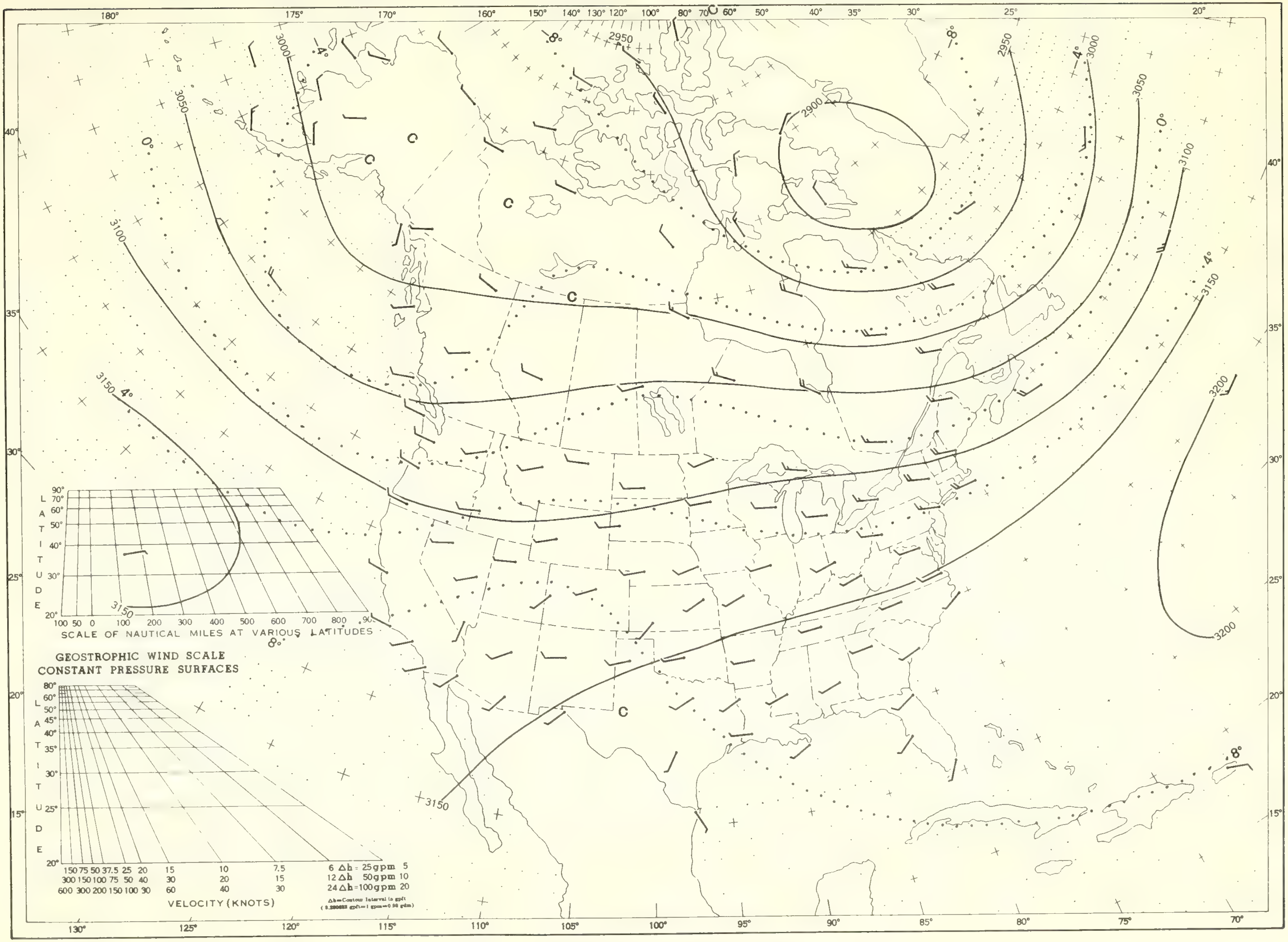
Average sea level pressures are obtained from the averages of the 7:00 a. m. and 7:00 p. m. E. S. T. readings. Windroses show percentage of time wind blew from 16 compass points or was calm during the month. Pressure normals are computed for stations having at least 10 years of record and for 10° intersections in a diamond grid based on readings from the Historical Weather Maps (1899-1939) for the 20 years of most complete data coverage prior to 1940.

Chart XI. 850-mb. Surface, 1200 GMT, June 1962. Average Height and Temperature, and Resultant Winds.



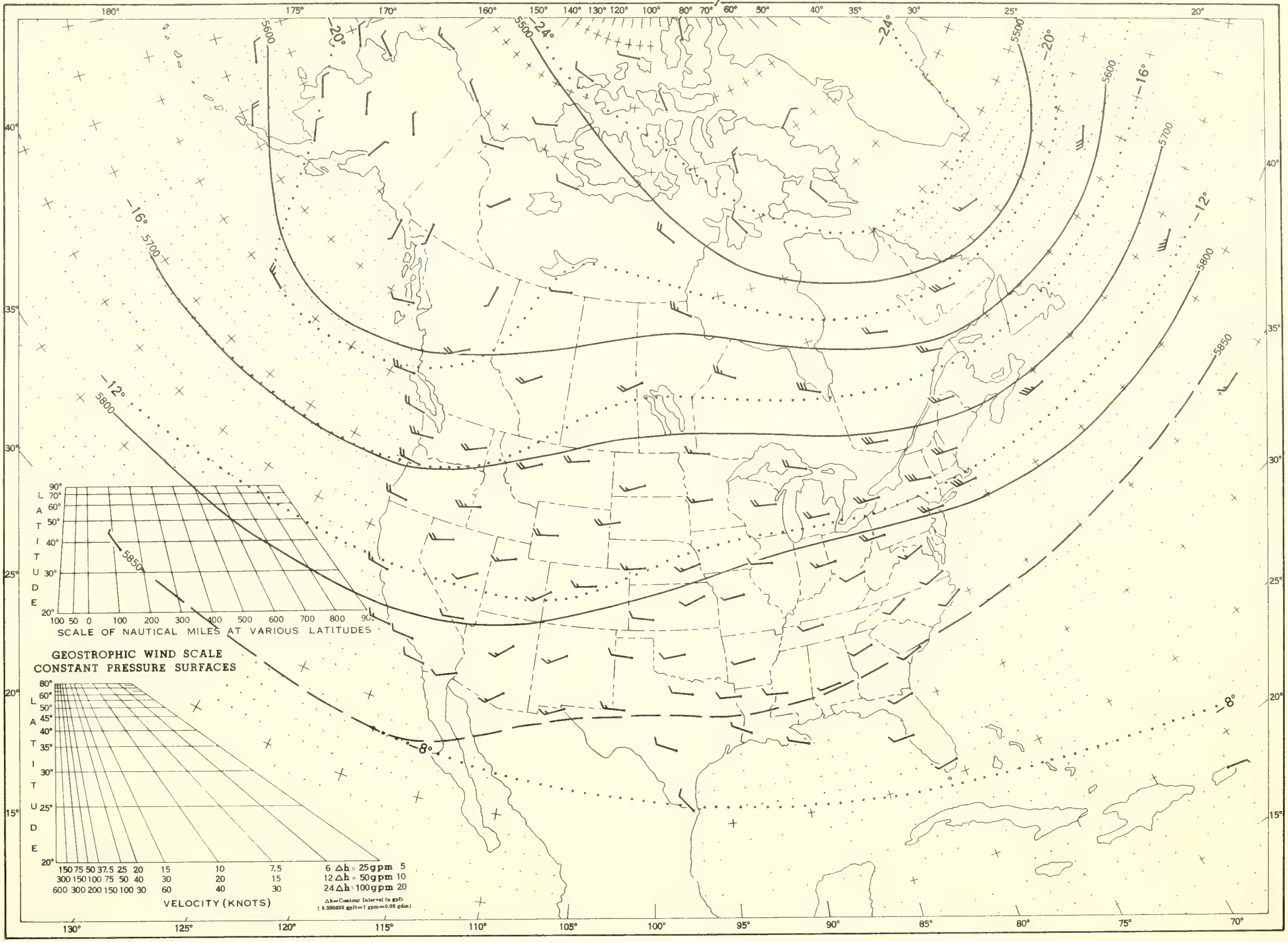
Height in geopotential meters (1 g.p.m. = 0.98 dynamic meters). Temperature in °C. Wind speed in knots; flag represents 50 knots, full feather 10 knots, and half feather 5 knots. All wind data are based on rawin observations.

Chart XII. 700-mb. Surface, 1200 GMT, June 1962. Average Height and Temperature, and Resultant Winds.



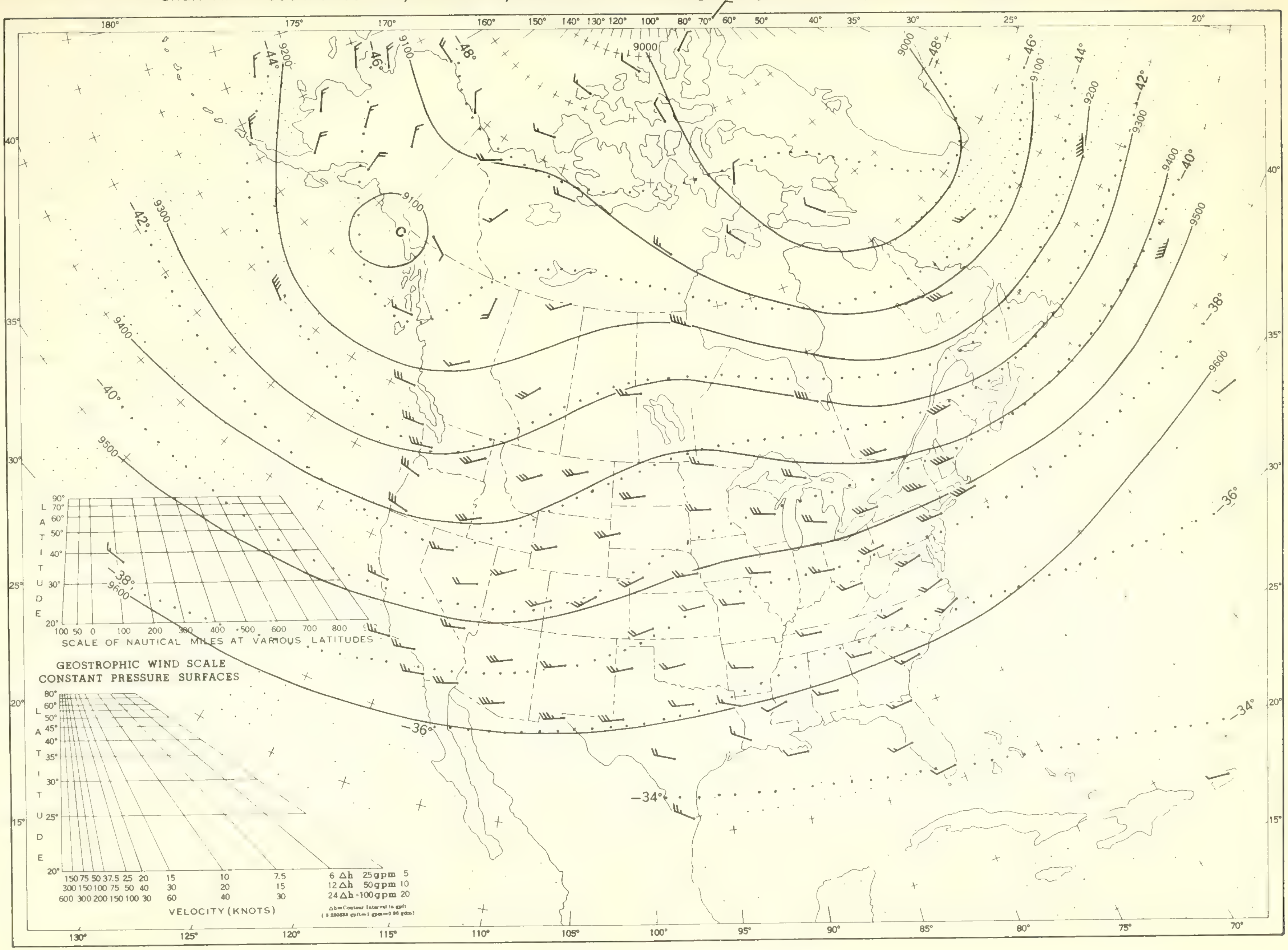
See Chart XI for explanation of map.

Chart XIII. 500-mb. Surface, 1200 GMT, June 1962. Average Height and Temperature, and Resultant Winds.



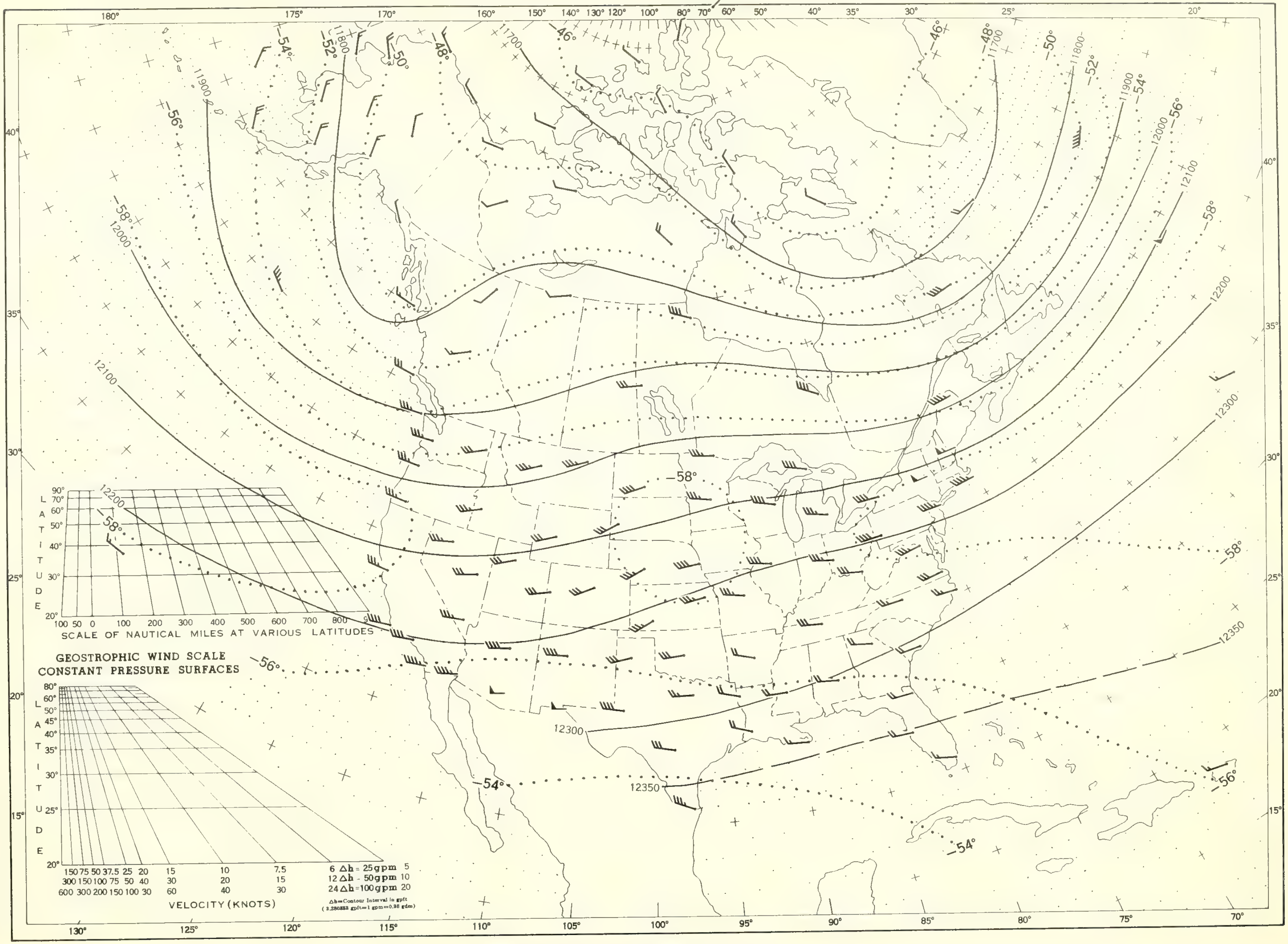
See Chart XI for explanation of map.

Chart XIV. 300-mb. Surface, 1200 GMT, June 1962. Average Height and Temperature, and Resultant Winds.



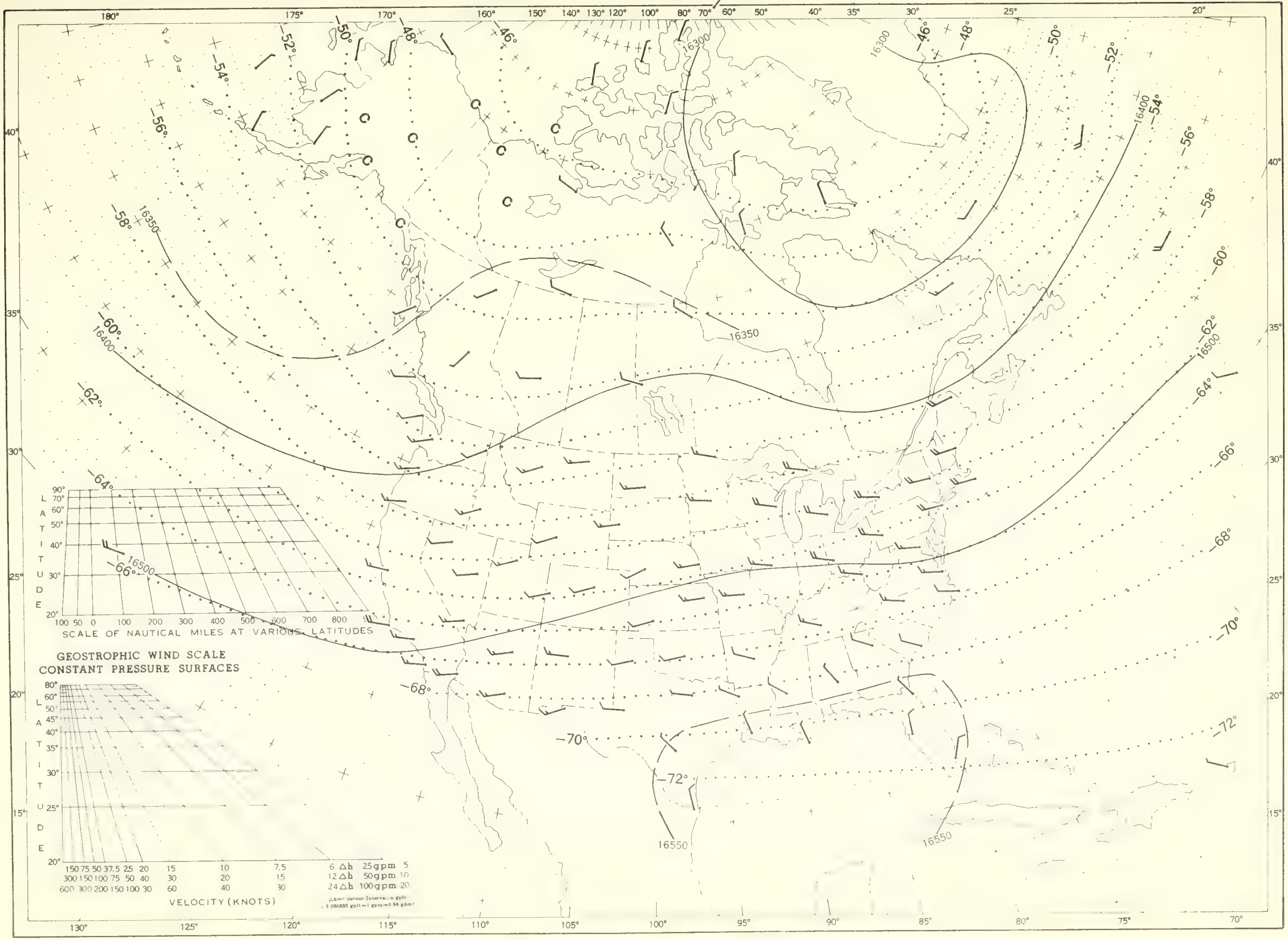
See Chart XI for explanation of map.

Chart XV. 200-mb. Surface, 1200 GMT, June 1962. Average Height and Temperature, and Resultant Winds.



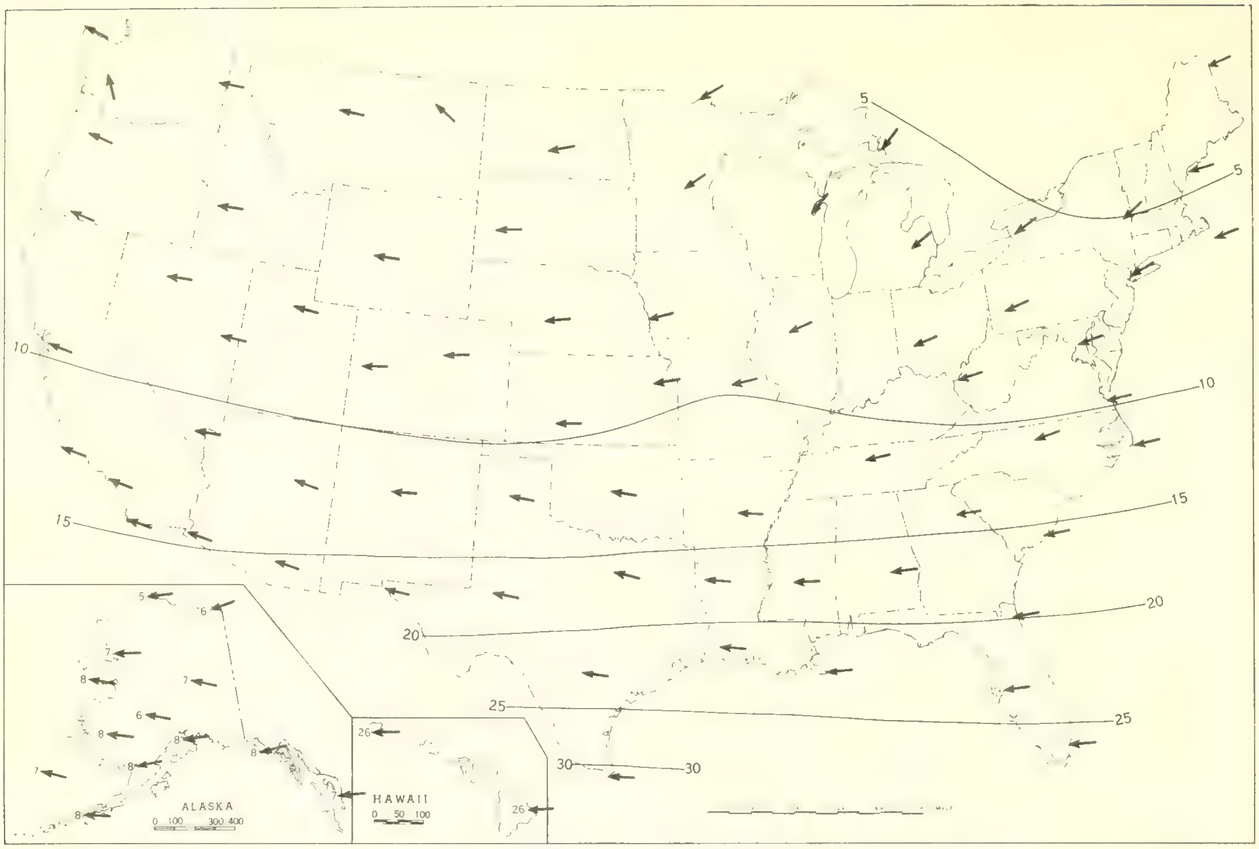
See Chart XI for explanation of map.

Chart XVI. 100-mb. Surface, 1200 GMT, June 1962. Average Height and Temperature, and Resultant Winds.

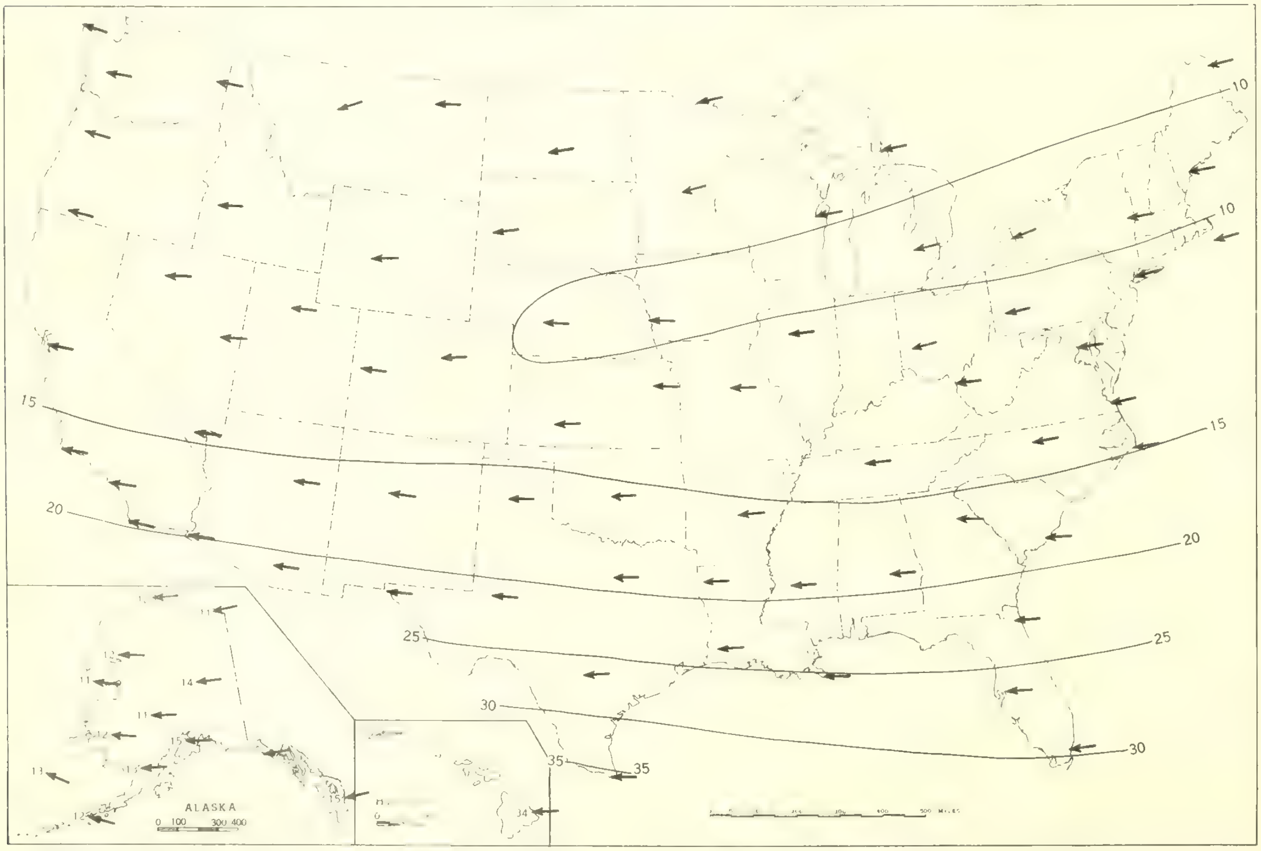


See Chart XI for explanation of map.

Chart XVII. A. 50-mb. Surface, 1200 GMT, June 1962. Resultant Winds.



B. 30-mb. Surface, 1200 GMT, June 1962. Resultant Winds.



Wind speed (isotachs) in knots. Arrows show resultant wind direction. All wind data are based on rawin observations.

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CLIMATOLOGICAL DATA

NATIONAL SUMMARY

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JULY 1962
Volume 13 No. 7

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NOTE: Delayed data and corrections will be carried in the June and December issues of this publication.

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CLIMATOLOGICAL DATA

NATIONAL SUMMARY

Volume 13 No. 7

JULY 1962

GENERAL SUMMARY OF WEATHER CONDITIONS

July was unseasonably cool over the northern two-thirds of the country and Far Southwest and warmer than usual in the Deep South including Texas. The month was much wetter than normal in the northern Utah-western Wyoming area, the Great Plains from northern Texas to Canada, and in the upper Mississippi Valley. In contrast, droughty conditions prevailed in the eastern Pennsylvania-southeastern New York area, southern Texas, Louisiana, and most of the Pacific States and adjacent areas.

TEMPERATURE. --The month averaged 2° to more than 4° cooler than normal from the Pacific States eastward over the northern and middle portions of the country to the Atlantic coast, and about 2° warmer than usual from Texas eastward over the Gulf States to the south Atlantic coast. Many stations in this cool area reported the coolest July of record or for relatively long periods of time. Among these are San Francisco (city), Calif., since 1901; Milford, Utah, since 1916; Great Falls, Mont., since 1915; Dubuque, Iowa, since 1882; Toledo, Ohio, and Rochester, N. Y., since 1891; Portland, Maine, since 1870; Boston, Mass., since 1923; Burlington, Vt., and Hartford, Conn., of record; Washington, D. C., since 1924; and Richmond, Va., since 1918. For the first time in 74 years the temperature during July did not reach 90° in the city of Boston. Spokane, Wash., had a low of 39° on the 2d, Roseburg, Oreg., 39° on the 3d, and Kalispell, Mont., 32° on the 3d and 4th for alltime July lows. In contrast, it was much warmer than usual in Alaska where Fairbanks had the warmest July in 44 years and McGrath in 20 years of record. Jacksonville, Fla., had the hottest July in 20 years. Macon and Thomasville, Ga., observed 90° or above on 29 days, new July records. San Antonio, Texas, had the highest average maximum temperature (98.5°) for July since records began in 1885. Medford, Oreg., reported a new July record for number of consecutive days (10) with temperatures of 100° or over, occurring from the 21st to the 30th.

PRECIPITATION. --Monthly totals of 4 to over 8 inches of rain fell from northern Texas northward over the Great Plains, upper Mississippi Valley, and sections from Illinois to southern Virginia and North Carolina, and in the Alabama-Georgia-Florida area. The totals were two to three times the normal July rainfall in most of the Great Plains. Among the stations reporting the wettest July for a long period of time or of record were Sioux City, Iowa, (6.12 inches) since 1938; Dodge City, Kans., (9.13 inches) of record; Glasgow, Mont., (5.17 inches) of record; Rapid City, S. Dak., (4.53 inches) since 1912; Dallas, Texas, (8.52 inches) of record; and Fairbanks, Alaska, (4.35 inches) since 1922.

Less than one-half of the usual rainfall was received in northeastern Maryland, eastern Pennsylvania, New Jersey, southeastern New York, and southwestern New England; central South Carolina, southern Texas, Louisiana, south-central Mississippi, west coastal sections of Florida, and southwestern Missouri; and the Pacific States and adjacent areas except northern Washington. Most stations in southern Texas, California, Oregon, Washington and adjacent areas reported no measurable rain in July. Many counties in eastern Pennsylvania, southeastern New York, and adjacent sections were declared Federal drought disaster areas. Some of the stations with the driest or equal to the driest July of record in southern Texas were Austin (0.00), Waco (0.07 inch), Galveston (0.00), Corpus Christi (T), Brownsville, (T), and Laredo (0.00). It was the driest July for over 33 years at Apalachicola, Fla., (1.71 inches); for 48 years at Winslow, Ariz., (0.05 inch); and since 1878 at Reading, Pa., (0.52 inch). Droughty conditions persist in the north portion of the Island of Hawaii.

DESTRUCTIVE STORMS. --Thunderstorms were more frequent than usual from northern Texas northward over the northern Rockies and Great Plains. For instance, thunder or distant lightning was observed on all but 3 days in July at Dodge City, Kans. Hail and wind caused $2 million damage at Omaha., Nebr., on the 21st and $2-1/2 million damage at Dubuque, Iowa, on the 22d. The wind reached 115 m.p.h., in gusts during a thunderstorm at Winston-Salem, N. C., on the 16th for the strongest there of record. A tornado killed 1 person and injured 2 others at Aberdeen, S. Dak., on the 19th. Another twister caused 1 death and 1 injury 10 miles south of Pampa, Texas, on the 15th.

CONDENSED CLIMATOLOGICAL SUMMARY

JULY 1962

Section	Temperature						Precipitation			
	Monthly extremes						Monthly extremes			
	Station	Highest	Date	Station	Lowest	Date	Station	Greatest	Station	Least
		°F			°F			In.		In.
Alabama	Decatur	104	24	Valley Head	46	28+	Elrod	10.80	Selma	0.53
Arizona	Inner Canyon	116	7	Maverick	25	14	Painted Canyon	9.39	10 Stations	.00
Arkansas	Booneville	105	8	Mammoth Spring	49	27	Clarksville	8.06	Salem	.43
California	Death Valley	117	27+	White Mountain 2	23	13	White Mountain 1	1.97	433 Stations	.00
Colorado	Eads	105	7	2 Stations	25	21+	Sterling	7.90	2 Stations	T
Connecticut	Bull Bridge Dam	95	8	Coventry	36	3	Stevenson Dam	3.46	Cream Hill	1.16
Delaware	2 Stations	95	9+	2 Stations	49	27+	Lewes 1SW	6.26	Wilmington Porter Res.	1.31
Florida	Loxahatchee	103	27	do	61	3	Okeechobee 9W	13.43	Marathon Shores	1.02
Georgia	Hartwell	105	23	3 Stations	49	27	Jesup 8S	11.94	Stillmore	.78
Idaho	Swan Falls PH	106	22	2 Stations	22	20+	Island Park Dam	3.04	3 Stations	.00
Illinois	3 Stations	99	14	Jerseyville	43	27	Danville	13.95	Chester	.94
Indiana	2 Stations	98	15+	3 Stations	41	27+	Winchester Airport	11.84	Columbia City	1.76
Iowa	Shenandoah	97	3	Saratoga	40	31	Belle Plaine	12.97	Indianola	2.29
Kansas	Sharon Springs	106	7	Sabetha Lake	49	26	Palco 1SSW	11.61	Sedan	.90
Kentucky	4 Stations	99	16+	Renfro Valley	41	27	Saylersville 2SE	9.43	Scottsville 2SW	.68
Louisiana	2 Stations	104	31+	Greensburg	61	2	Burrwood WB	7.31	Singer	.00
Maine	3 Stations	90	9+	Squa-Pan Dam	30	3	Patten	7.90	Upper Dam	.57
Maryland	Benson Police Brks.	96	9	Oakland 1SE	38	28	Shallmar	5.94	Snowhill	.80
Massachusetts	Springfield Armory	95	8	West Cummington	34	6	New Salem	4.93	Brockton	1.02
Michigan	3 Stations	95	7	Kenton US Forest	32	15	Kalamazoo State Hosp.	6.03	Detour 1N	.21
Minnesota	Canby	94	7	2 Stations	35	27+	Long Prairie	10.89	Argyle	1.58
Mississippi	Carthage	104	24+	Hickory Flat 1WNW	55	27	Buckatunna	7.66	Oakley Exp Station	.06
Missouri	2 Stations	102	15+	Berryman 6NW	40	27	Elsberry 1S	8.19	Alton	.28
Montana	Libby 1NE RS	101	23	3 Stations	25	19+	Turner	7.16	Creston	.11
Nebraska	5 Stations	100	8+	do	43	26	Stratton	11.13	Chadron FAA Airport	1.65
Nevada	Sunrise Manor Las Ve	113	27+	Mountain City RS	25	14+	Currie Highway Sta	1.80	5 Stations	.00
New Hampshire	Manchester	95	9	3 Stations	30	4+	First Conn. Lake	8.22	Bradford	2.87
New Jersey	4 Stations	97	9+	Layton	43	2	Chatsworth	5.01	Orange	.82
New Mexico	2 Stations	105	15+	Wolf Canyon	28	15+	Cloudcroft RS	9.61	Fruitland	.00
New York	Poughkeepsie	99	8	Indian Lake 2SW	32	2	Wanakena Ranger Sch	8.00	Shokan-Brown St.	.65
North Carolina	Hamlet	105	15	2 Stations	39	28+	Manteo	13.90	Statesville 2NNE	1.26
North Dakota	Watford City 14S	93	9	Willow City	35	30	Enderlin	13.01	Ambrose 3N	.50
Ohio	Canfield 1S	98	12	2 Stations	39	28+	New Carlisle	9.42	Kenton	1.52
Oklahoma	Clinton	112	22	Bartlesville 2W	52	27	Hallett 1NW	7.79	Mutual 2NE	.69
Oregon	2 Stations	108	24+	Brothers	18	2	Otis 2NE	.79	66 Stations	.00
Pennsylvania	Scranton	100	9	Coudersport 3NW	35	2	Carter Camp 2W	5.22	Lancaster 2NE P.S.	.46
Puerto Rico	2 Stations	96	11+	Lares	60	31	Aceituna	13.12	Puerto Real	.75
Rhode Island	Greenville	89	8	2 Stations	44	6+	Woonsocket	2.17	Newport	1.58
South Carolina	Pelzer	103	15	Ninety Nine Islands	50	28	Hampton	7.86	Crescent 1W	.94
South Dakota	2 Stations	99	6+	Deerfield 5NW	32	8	Salem	10.32	Blunt	1.37
Tennessee	Mount Pleasant 2SW	104	23	Mountain City 2	41	27	Knoxville WB Airport	7.82	Dyersburg FAA Airport	1.02
Texas	Rio Grande City 3W	110	28	Mount Locke	52	17	Kaufman	18.89	Numerous Stations	.00
Utah	St George PH	108	21	Silver Lake Brighton	23	12	Salt Lake City WB AP	2.52	Cisco	.00
Vermont	Cornwall	93	8	West Burke	29	6	Waterbury 1NNE	9.05	Union Village Dam	1.59
Virginia	Grundy 3NW	97	14	Floyd 2NE	36	27	Newport News Press Bldg	9.97	Washington Dulles WBAS	1.35
Washington	2 Stations	107	24	Rainier Paradise RS	25	2	Snoqualmie Pass	2.54	19 Stations	.00
West Virginia	Wheeling Warwood Dam 12	95	8	4 Stations	35	28+	Hamlin	10.16	Harpers Ferry	1.84
Wisconsin	Lake Geneva	95	11+	Prentice 5W	35	26	Darlington	9.40	Rosholt	1.04
Wyoming	Emblem	100	10	Bondurant 3NW	23	4	Grass Creek	7.27	Rock Springs FAA	.14

+ And also on an earlier date or dates.

NOTE: Dates in the above Condensed Climatological Summary apply to the period 24 hours prior to time of observation. In some cases the actual occurrence is on the calendar date preceding that shown. (See individual Climatological Data for times of observations).

CLIMATOLOGICAL DATA
ENGLISH UNITS

State and Station	Elevation (ground)	Pressure		Temperature											Average relative humidity	Precipitation							Wind					No. of days (sunrise to sunset)			Sky cover, tenths (sunrise to sunset)	Possible sunshine
												No. of days							No. of days		Snow, Sleet				Fastest mile							
		Station Ø	Sea level	Average maximum	Average minimum	Average	Departure from normal	Highest	Date	Lowest	Date	Max. 90 F. or above	Min. 32 F. or below	Average dew point		Total	Departure from normal	Greatest in 24 hours	.01 inch or more	With thunderstorms	Total	Maximum depth on ground	Average speed	Prevailing direction	Speed	Direction	Date	Clear, 0-3	Partly cloudy, 4-7	Cloudy, 8-10		
ALABAMA	Ft.	Mb.	Mb.	F.	F.	F.	F.	F.		F.				F.	%	In.	In.	In.			In.	In.	M.p.h.		M.p.h.							%
BIRMINGHAM	610	991.6	1016.5	95	71	82.6	2.5	102	23	62	10	28	0	68	65	3.89	-1.27	1.90	12	9	0.0	0	6.3	NE	34	NW	4	5	12	14	6.5	69
HUNTSVILLE	605	993.1	1016.0	93	69	80.8	- 0.3	101	23+	60	28+	26	0	66	66	2.17	-2.08	1.33	8	7	0.0	0	5.7	N	25*	NNW	5	7	12	12	5.8	
MOBILE	211	1013.7	1016.0	93	74	83.4	2.4	98	9	70	27+	29	0	73	77	5.44	-4.23	1.94	15	16	0.0	0	5.9	SW	23*	SSW	28	3	21	7	6.2	
MONTGOMERY	195	1008.0	1016.0	94	72	83.0	1.2	98	23	65	10	30	0	70	69	3.77	-1.63	1.68	8	10	0.0	0	6.8	W	34	N	7	4	19	8	5.9	58
ALASKA												B																				
ANCHORAGE	90	1013.9	1018.7	66	51	58.4	1.3	75	6	47	30+	8	0	50	74	0.72	-1.14	0.26	7	0	0.0	0	5.4	W	20*	NNE	1	4	7	20	7.5	50
ANNETTE	110	1017.3	1021.2	67	53	59.9	3.1	81	5	46	16	12	0	51	75	2.98	-3.04	0.85	12	0	0.0	0	5.9	SSE	18*	S	11	6	7	18	6.8	
BARROW	22	1014.6	1015.3	47	33	40.4	1.3	64	17	27	5+	0	18	37	88	1.23	0.46	0.51	12	0	0.2	T	10.9	E	32*	WSW	27	0	5	26	8.6	
BARTER ISLAND	39	1013.9	1015.7	46	33	39.7	- 1.6	66	19	26	5+	0	12	36	89	1.56	0.68	0.81	7	0	T	0	10.2	ENE	25*	WSW	28	2	13	16	7.5	
BETHEL	125	1015.6	1017.0	68	50	59.1	4.4	82	17+	45	8	10	0	51	76	1.12	-0.91	0.46	9	0	0.0	0	11.5	SSW	29*	S	7	3	9	19	7.7	
COLD BAY	94	1014.2	1018.2	55	47	51.4	1.7	63	24	41	24	0	0	47	87	3.41	1.59	1.37	13	0	0.0	0	15.7	SSE	46*	SSE	6	0	3	28	9.1	
CORDOVA	40	1018.6	1020.2	60	47	53.4	0.2	68	28+	39	24	0	0	50	88	3.96	-2.31	1.35	19	1	0.0	0	5.5	E	20*	WSW	24	0	5	26	9.2	
FAIRBANKS	436	999.3	1016.2	74	53	63.5	3.8	86	31+	41	1	24	0	52	69	4.35	2.51	1.63	11	1	0.0	0	6.6	SW	24*	SW	7	4	9	18	7.3	
JUNEAU	17	1019.0	1019.8	65	48	56.7	1.4	78	29+	42	16+	11	0	48	76	4.75	0.26	1.47	12	0	0.0	0	6.4	NNW	23*	ESE	11	5	8	18	7.3	40
KING SALMON	43	1015.2	1017.3	67	48	57.1	2.2	82	1	41	18+	11	0	49	79	2.47	0.41	0.59	13	2	0.0	0	8.0	SW	23*	SSW	21+	4	7	20	7.7	
KOTZEBUE	10	1014.9	1015.5	60	51	55.3	2.6	69	18	44	21	0	0	51	83	2.00	0.54	0.79	15	0	0.0	0	9.7	WNW	23*	WNW	21	3	4	24	8.0	
MC GRATH	334	1004.4	1017.1	74	51	62.3	3.6	88	20	43	23	23	0	49	66	0.60	-1.83	0.28	11	3	0.0	0	5.0	S	21*	S	24	5	5	21	7.3	
NOME	13	1015.9	1016.4	58	47	52.8	3.3	72	18	41	22	3	0	48	84	0.68	-1.61	0.33	9	0	0.0	0	10.3	WSW	23*	W	24+	4	6	21	7.8	33
ST. PAUL ISLAND	22	1015.2	1016.0	51	43	46.7	1.2	61	26+	39	17	0	0	45	95	1.97	-0.28	0.94	16	0	0.0	0	12.9	SE	28*	ESE	31	0	3	28	9.5	
SHEMYA	122	1010.2		51	46	48.6	2.2	54	23+	42	2	0	0	47	98	2.57	0.42	0.66	13	0	0.0	0	11.7	S	30*	SSE	23+	0	0	31	10.0	
YAKUTAT	28	1019.3	1020.5	59	48	53.3	- 0.8	69	19	39	16	0	0	50	89	7.05	-1.38	2.56	17	0	0.0	0	6.7	ESE	23*	ESE	10	3	6	22	8.2	
ARIZONA																																
FLAGSTAFF	6993	794.4	1016.1	81	49	64.6	- 1.4	85	20+	38	14	0	0	39	44	2.36	0.08	1.54	9	12	0.0	0	6.3	SSW	22*	S	12	11	15	5	4.7	
PHOENIX	1109	971.6	1009.6	105	75	90.2	- 1.1	112	11	67	1	31	0	51	28	0.10	-0.67	0.10	1	2	0.0	0	5.8	W	35*	SE	20	20	8	3	2.9	95
PRESCOTT	5014	849.0	1012.8	90	60	75.0	- 1.0	97	20	53	14	21	0	43	37	1.94	-0.14	1.47	8	9	0.0	0	7.7	SSW	45	SW	12	17	10	4	3.6	80
TUCSON	2584	924.8	1010.5	97	73	84.9	- 1.2	103	17+	65	14	31	0	52	37	1.38	-0.68	0.37	10	15	0.0	0	9.3	S	54	W	29	10	10	11	5.6	79
WINSLOW	4880	853.4	1012.8	94	62	78.0	- 2.7	100	10	54	16	26	0	41	31	0.05	-0.97	0.02	4	10	0.0	0	9.8	SW	52*	SW	17	10	12	9	5.1	
YUMA	199	1004.1	1009.0	108	78	93.3	- 1.5	113	11+	68	13	31	0	53	29	T	-0.23	T	0	0	0.0	0	8.9	S	24	SE	8	28	2	1	1.3	96
ARKANSAS																																
FORT SMITH	449	998.4	1015.2	95	71	82.7	- 0.3	104	8	66	27	25	0	70	72	4.58	1.78	2.17	9	7	0.0	0	6.0	ENE	29	N	21	13	8	10	5.0	61
LITTLE ROCK	257	1002.8	1015.8	92	72	81.9	0.0	99	23	62	27	24	0	72	74	3.10	-0.24	1.80	8	7	0.0	0	6.0	SW	24	N	8	11	12	8	5.0	71
TEXARKANA	361		1016.0	94	73	83.1	0.5	99	23	66	27	27	0	72	75	3.14	-0.70	1.32	5	7	0.0	0	6.9	SW								
CALIFORNIA																																
BAKERSFIELD	494	994.9	1012.1	98	68	82.8	- 1.5	102	27+	62	13	29	0	48	31	0.00	-0.01	0.00	0	0	0.0	0	6.9	NW	14*	WNW	19+	30	1		0.2	
BISHOP	4108	874.0		95	54	74.7	- 1.4	100	26	47	1	29	0			0.06	-0.06	0.04	2	4	0.0	0						25	5	1	2.1	
BLUE CANYON	5280	841.9		78	60	68.6	0.1	84	26+	48	12	0	0			0.13	0.04	0.13	2	2	0.0	0	6.2	WSW	21	ESE	12	25	5	1	1.5	
BURBANK	699	988.5	1014.1	83	58	70.5	- 3.3	91	7	55	30+	3	0	55	66	T	0.00	T	0	0	0.0	0	7.8	S	16*	SE	23+	23	8		2.2	
EUREKA U	43	1015.6		58	50	53.8	- 2.5	61	4	47	22+	0	0			T	-0.11	T	0	0	0.0	0	7.0	NW$	26	N	1	9	7	15	6.3	54
FRESNO	326	999.7	1011.2	99	63	80.9	0.3	104	27	57	13	30	0	48	36	T	0.00	T	0	1	0.0	0	6.7	WNW	20	NW	11	30	1		0.3	99
LONG BEACH	34	1013.2	1014.8	79	58	68.7	- 3.2	86	7	52	2+	0	0	58	77	T	0.00	T	0	0	0.0	0	7.3	WNW	17*	W	18	20	9	2	3.5	
LOS ANGELES	97	1011.5	1015.1	72	60	66.0	- 1.8	76	11	56	2+	0	0	58	79	T	-0.01	T	0	0	0.0	0	5.8	WSW	17*	WSW	22	17	6	8	4.4	
LOS ANGELES U	312			80	60	70.1	- 2.9	86	8	57	7+	0	0	57	70	0.00	0.00	0.00	0	0	0.0	0	5.5	W$	16	W	29+	23	7	1	2.5	82
MT SHASTA R	3544	893.0		86	50	67.8	- 0.2	96	27	43	2	12	0			T	-0.30	T	0	6	0.0	0						25	6		1.3	
OAKLAND	3	1014.9	1015.1	70	54	61.7	- 2.6	79	14	50	6	0	0	51	73	T	0.00	T	0	0	0.0	0	9.0	WNW	25*	W	11	15	12	4	3.5	
POINT ARGUELLO	367	1002.0		62	52	56.6	- 1.9	68	18	49	1	0	0			0.09	0.07	0.02	9	0	0.0	0	6.1		21*	WSW	18	0	5	26	9.1	
RED BLUFF	341	999.0	1011.4	99	67	83.0	- 0.8	109	26	61	19+	31	0	45	29	0.00	-0.04	0.00	0	0	0.0	0	8.7	SSE	22	NW	16+	27	4		1.1	98
SACRAMENTO	17	1011.5	1012.6	94	56	75.1	- 2.3	104	21	52	19+	28	0	53	54	0.00	0.00	0.00	0	0	0.0	0	7.0	SSW	23	W	12	26	5		0.9	100
SACRAMENTO U	23			92	57	74.6	- 1.4	102	21	53	13+	22	0			0.00	0.00	0.00	0		0.0	0										
SANDBERG R	4517	864.2		83	62	72.6	- 1.8	91	25+	52	13	2	0			0.00	-0.02	0.00	0	0	0.0	0	10.7	N	24*	NNW	13+	30	1		0.2	
SAN DIEGO	13	1011.2	1014.3	74	62	68.3	- 1.3	78	10	60	15+	0	0	59	76	T	-0.01	T	0	0	0.0	0	7.3	NW	17	NW	21+	20	6	5	3.9	70
SAN FRANCISCO	8	1014.9	1015.6	69	51	60.2	- 2.5	78	15	49	15+	0	0	50	76	T	-0.01	T	0	0	0.0	0	11.9	WNW	33	W	11	20	9	2	2.8	
SAN FRANCISCO U	52			61	51	56.0	- 2.8	67	2	49	21+	0	0			T	-0.01	T	0	0	0.0	0	10.9	SW$	28	W	11					57
SANTA MARIA	238	1007.1	1015.9	69	52	60.4	- 1.8	73	30+	45	2	0	0	53	85	T	-0.03	T	0	0	0.0	0	6.6	WNW	22*	WNW	12	14	17		3.8	
COLORADO																																
ALAMOSA	7536	776.5		80	46	63.0	- 1.9	87	11	37	14	0	0			0.49	-0.58	0.22	11	9	0.0	0						5	19	7	5.6	

See footnotes at end of table

CLIMATOLOGICAL DATA

ENGLISH UNITS

State and Station	Elevation (ground)	Pressure		Temperature											Average relative humidity	Precipitation							Wind					No. of days (sunrise to sunset)			Sky cover, tenths (sunrise to sunset)	Possible sunshine
												No. of days							No. of days		Snow, Sleet				Fastest mile							
		Station Ø	Sea level	Average maximum	Average minimum	Average	Departure from normal	Highest	Date	Lowest	Date	Max. 90 F. or above	Min. 32 F. or below	Average dew point		Total	Departure from normal	Greatest in 24 hours	.01 inch or more	With thunderstorms	Total	Maximum depth on ground	Average speed	Prevailing direction	Speed	Direction	Date	Clear, 0-3	Partly cloudy, 4-7	Cloudy, 8-10		
COLORADO	Ft.	Mb.	Mb.	F.	F.	F.	F.	F.		F.				F.	%	In.	In.	In.			In.	In.	M.p.h.		M.p.h.							%
COLORADO SPRINGS	6173	815.8	1016.3	83	55	68.9	- 1.1	91	10	50	25+	5	0	48	55	1.60	-0.77	0.38	11	17	0.0	0	7.8	NNE	35*	NW	1	6	19	6	5.1	
DENVER	5283	840.5	1013.5	89	57	72.9	- 0.5	97	6	50	15	15	0	46	46	0.54	-0.99	0.25	5	6	0.0	0	9.0	SSW	35	N	15	11	17	3	4.7	78
GRAND JUNCTION	4849	859.8	1011.7	91	62	76.9	- 1.3	98	11	53	14	21	0	35	26	0.08	-0.49	0.05	3	6	0.0	0	6.7	ESE	48	NW	25	13	16	2	4.1	83
PUEBLO	4639	858.5	1013.6	90	59	74.5	- 2.0	99	7	53	25	17	0	52	54	1.92	0.10	0.72	10	14	0.0	0	9.6	SE	44	W	30	10	14	7	5.3	77
CONNECTICUT																																
BRIDGEPORT	7	1014.1	1015.1	79	61	70.1	- 3.6	87	8	55	2	0	0	59	72	1.97	-1.80	0.80	6	5	0.0	0	11.3	WSW	35*	NW	21	5	15	11	6.2	
HARTFORD	169	1007.8	1013.9	82	56	69.0	- 3.2	94	8	44	2	1	0	57	70	1.64	-1.97	0.95	7	5	0.0	0	6.7	S	32	SW	12	4	15	12	6.5	62
NEW HAVEN	6	1014.1		79	60	69.1	- 2.8	87	8	52	6	0	0			2.00	-1.43	0.85	7	5	0.0	0	6.9		34	SW	23	6	14	11	6.2	68
DELAWARE																																
WILMINGTON	78	1011.6	1014.9	83	62	72.6	- 3.4	93	8	51	27	5	0	60	68	1.78	-2.47	0.68	9	3	0.0	0	8.0	WNW	31*	WNW	23	7	13	11	6.0	
DIST.OF COLUMBIA																																
WASHINGTON U	72			84	66	74.8	- 3.0	94	8	58	28+	6	0			1.65	-2.46	0.40	8													
WASH NATL AP	14	1011.1	1015.5	84	66	75.3	- 2.9	95	21	59	28	6	0	63	69	1.63	-2.52	0.86	8	3	0.0	0	7.4	S	27	SW	23	10	10	11	5.7	64
FLORIDA																																
APALACHICOLA U	13	1014.3		90	77	83.6	2.1	96	9	73	4	16	0			1.71	-6.22	0.94	10	12	0.0	0	5.7		28	NW	31	3	20	8	6.1	61
DAYTONA BEACH	31	1015.8	1017.5	90	72	81.3	1.2	95	25	65	3	19	0	70	75	10.04	3.30	3.39	15	22	0.0	0	7.3	SW	23*	WSW	18+	3	11	17	7.3	
FORT MYERS	13	1016.6		92	77	84.3	2.1	95	23	73	1	27	0			6.01	-3.07	1.35	10	22	0.0	0	8.3		28*	ESE	24	3	19	9	6.3	
JACKSONVILLE	24	1015.6	1017.1	94	74	84.0	1.4	99	12	67	1	29	0	73	76	6.31	-1.37	1.91	18	17	0.0	0	6.4	SW	39	SE	21	3	15	13	6.5	51
KEY WEST	5	1016.3	1017.5	91	81	86.1	2.8	93	18+	76	2	30	0	74	68	1.30	-2.86	0.73	9	12	0.0	0	8.7	ESE	22	SE	24+	4	18	9	6.0	76
LAKELAND U	214			92	74	82.9	1.3	96	24+	69	20	26	0			4.50	-3.80	1.75	13	24	0.0	0	5.9					0	13	18	7.4	61
MIAMI BEACH	9			90	80	84.8	2.5	95	16	73	3	17	0			4.51	0.06	1.30	15		0.0	0	5.7		26	NW	9+	9	16	6	5.3	61
MIAMI	7	1016.3	1017.6	90	76	83.3	1.5	93	26+	73	1	20	0	73	75	3.74	-3.01	1.40	10	22	0.0	0	6.8	ESE	38*	S	6	4	18	9	6.1	
ORLANDO	106	1012.9	1017.5	94	74	83.9	2.4	99	25	69	7	30	0	73	76	12.77	4.77	2.68	14	17	0.0	0	7.9	SW	29*	WSW	10+	3	19	9	6.3	
PENSACOLA U	13			91	76	83.5	1.7	97	21+	71	12	20	0			6.56	-1.00	2.04	13	13	0.0	0	7.9	N	25	NW	22					69
TALLAHASSEE	58	1014.1	1016.7	93	72	82.4	1.1	98	12+	69	11+	27	0	73	79	4.87	-3.18	1.25	20	22	0.0	0	7.5	SW	35*	SSE	17	0	21	10	6.7	
TAMPA	19	1015.9	1017.5	90	76	83.0	1.4	94	2	72	1	23	0	73	74	2.31	-6.31	0.72	10	18	0.0	0	9.3	W	39*	WNW	5	2	14	15	6.8	61
WEST PALM BEACH	15	1016.6	1017.7	92	75	83.5	0.9	96	27	69	2+	28	0	74	78	8.09	1.43	2.16	18	18	0.0	0	7.3	SE	37*	NNW	1	3	16	12	6.6	
GEORGIA																																
ATHENS	803	987.6	1016.3	91	68	79.4	- 0.3	99	23	61	28	20	0	69	74	3.85	-1.14	1.05	14	11	0.0	0	6.4	WSW	28*	WSW	24	7	14	10	5.9	
ATLANTA	1005	975.0	1016.1	88	69	78.6	- 0.2	94	23	61	27	12	0	69	78	5.25	0.53	1.53	11	13	0.0	0	5.8	WNW	21*	NW	25	6	15	10	5.7	73
AUGUSTA	143	1008.9	1015.3	93	71	82.0	1.3	102	24	60	28	25	0	70	73	1.77	-2.73	0.85	11	11	0.0	0	5.5	SE	29*	WNW	19	5	13	13	6.4	
COLUMBUS	385	1002.4		93	71	82.1	1.0	98	24+	64	1	27	0			7.51	1.64	2.38	13	14	0.0	0	5.5		52*	N	18	4	17	10	6.2	
MACON	356	1002.0	1015.4	95	72	83.5	1.6	101	23	66	1	29	0	70	69	1.76	-3.88	1.05	10	11	0.0	0	6.9	WNW	23	NW	15	6	9	16	6.6	66
ROME	637	993.3		90	67	78.1	- 0.9	96	23	56	28	21	0			5.58	0.69	1.21	12	11	0.0	0						9	13	9	5.7	
SAVANNAH	48	1013.8	1016.5	92	72	81.9	0.6	96	24+	66	1	24	0	72	76	8.05	1.44	2.37	13	11	0.0	0	7.4	SW	42	N	22	2	16	13	6.8	74
THOMASVILLE U	283			95	73	83.7	1.7	98	24+	70	21+	29	0			4.23	-2.58	1.55	15	17	0.0	0						3	19	9	6.3	
HAWAII																																
HILO	31	1015.6	1017.2	82	67	74.3	- 0.6	87	27	64	8+	0	0	66	79	8.01	-1.81	1.17	31	0	0.0	0	6.9	WSW	22*	ENE	30	1	6	24	8.2	37
HONOLULU	7	1016.6	1016.9	85	73	79.2	0.4	89	27	70	9+	0	0	66	66	0.13	-0.31	0.08	4	0	0.0	0	15.7	ENE	32	NE	28	5	18	8	5.6	90
LIHUE	115	1012.5	1017.8	85	73	79.0	1.4	87	29+	67	25	0	0	67	69	1.55	-0.39	0.60	15	0	0.0	0	14.0	NE	28	NE	30+	4	20	7	5.8	74
IDAHO																																
BOISE	2838	919.1	1013.5	88	57	72.2	- 2.5	99	22	44	2	13	0	40	34	0.04	-0.17	0.02	2	1	0.0	0	8.2	WNW	29	SW	30	19	9	3	3.5	87
IDAHO FALLS 42NW R	4790			84	48	65.9	- 3.2	93	21+	39	20	6	0			1.23	0.79	0.75	5													
IDAHO FALLS 46W R	4933	850.0		84	49	66.1	- 2.9	94	21	39	20+	6	0			0.72	0.46	0.54	6	2	0.0	0	7.3	WSW	29A	WSW	12					
LEWISTON	1436	963.4		87	57	72.2	- 1.6	101	24	45	3	16	0			0.12	-0.31	0.06	4	4	0.0	0						15	11	5	4.1	
POCATELLO	4444	864.9	1014.7	86	53	69.1	- 3.3	96	21	42	19	11	0	37	37	0.76	0.25	0.51	5	7	0.0	0	8.7	WSW	33	SW	30	11	11	9	4.9	80
ILLINOIS																																
CAIRO U	314	1002.6		90	72	80.9	- 0.2	98	14	58	27	19	0			2.68	-0.51	1.22	8	8	0.0	0	6.5	SW$	34	NW	6	9	14	8	5.3	78
CHICAGO O HARE	658	990.7	1015.2	79	59	69.2		90	7	49	26	1	0	60	73	5.27		2.89	12	5	0.0	0	7.8	NNE	20*	WNW	8	6	10	15	6.5	
CHICAGO MIDWAY	610	992.8	1015.4	80	64	72.1	- 3.6	93	7	53	26	2	0	59	67	4.65	1.28	1.82	9	4	0.0	0	8.7	E	30	NW	22	5	11	15	6.6	72
MOLINE	582	992.9	1014.8	81	62	71.6	- 4.0	93	7	49	26	4	0	64	79	6.73	3.47	3.51	11	12	0.0	0	7.1	E	31	S	11	7	11	13	6.6	57
PEORIA	652	993.9	1016.0	83	62	72.0	- 4.0	90	11	47	27	1	0	63	76	2.77	-0.77	1.54	8	8	0.0	0	8.8	S	32	W	22	6	13	12	6.3	62

See footnotes at end of table

CLIMATOLOGICAL DATA

ENGLISH UNITS

State and Station	Elevation (ground)	Pressure: Station Ø	Pressure: Sea level	Temperature: Average maximum	Temperature: Average minimum	Temperature: Average	Temperature: Departure from normal	Temperature: Highest	Temperature: Date	Temperature: Lowest	Temperature: Date	No. of days: Max. 90 F. or above	No. of days: Min. 32 F. or below	Average dew point	Average relative humidity	Precipitation: Total	Precipitation: Departure from normal	Precipitation: Greatest in 24 hours	No. of days: .01 inch or more	No. of days: With thunderstorms	Snow, Sleet: Total	Snow, Sleet: Maximum depth on ground	Wind: Average speed	Wind: Prevailing direction	Fastest mile: Speed	Fastest mile: Direction	Fastest mile: Date	No. of days (sunrise to sunset): Clear, 0-3	Partly cloudy, 4-7	Cloudy, 8-10	Sky cover, tenths (sunrise to sunset)	Possible sunshine
ILLINOIS	Ft.	Mb.	Mb.	F.	F.	°F.	°F.	F.		°F.				°F.	%	In.	In.	In.			In.	In.	M.p.h.		M.p.h.							%
ROCKFORD	728	988.4	1015.4	84	61	69.5	- 4.7	90	7	50	26	1	0	60	74	5.56	1.42	2.33	11	9	0.0	0	8.9	ENE	23*	WNW	25	7	10	14	6.3	
SPRINGFIELD	588	992.1	1014.9	84	64	73.8	- 3.2	92	1	50	27	5	0	65	75	3.82	0.33	1.43	11	8	0.0	0	8.0	SW	73	SW	13	9	11	11	5.8	68
INDIANA																																
EVANSVILLE	381	1000.1	1015.6	90	66	77.7	- 0.6	97	14	49	27	17	0	67	72	1.81	-1.51	0.56	12	9	0.0	0	5.5	NW	29	N	23+	7	11	13	6.1	82
FORT WAYNE	791	984.8	1015.5	82	62	71.8	- 2.4	92	7	51	10	2	0	61	71	2.06	-1.31	1.03	10	5	0.0	0	8.6	NW	26	SW	11+	4	13	14	6.8	63
INDIANAPOLIS	793	985.9	1015.5	83	63	73.3	- 1.9	91	7+	51	27+	3	0	64	77	6.87	3.37	3.37	9	8	0.0	0	6.8	N	41*	N	11	4	15	12	6.6	67
SOUTH BEND	768	987.3	1015.2	78	61	69.3	- 4.3	90	7	49	10	1	0	60	75	4.87	1.40	3.31	11	4	0.0	0	8.6	NW	86*	WNW	25	6	11	14	6.6	
IOWA																																
BURLINGTON	694	990.6	1015.9	84	63	73.7	- 2.9	92	3	48	26	5	0	64	76	3.57	0.17	0.99	11	11	0.0	0	8.0	NW	45	W	4	7	11	13	6.3	69
DES MOINES	948	984.7	1015.5	84	65	74.3	- 2.7	95	7+	53	26	4	0	65	75	2.94	-0.12	1.16	12	10	0.0	0	5.7	SSE	35	N	7	5	15	11	6.5	64
DUBUQUE	1065	990.3		78	59	68.4	- 4.2	88	11	48	31+	0	0			8.93	5.42	2.57	11	9	0.0	0						7	10	14	6.6	
SIOUX CITY	1095	974.3	1014.9	83	64	73.3	- 3.1	92	19+	49	26	4	0	65	78	6.12	3.01	2.60	12	11	0.0	0	7.7	SSE	28	N	10	12	11	8	4.9	66
WATERLOO	868	984.0	1015.6	79	61	69.7	- 4.6	90	7	46	31	1	0	63	79	7.35	3.56	2.30	12	6	0.0	0	7.9	NW	46*	NNW	7	5	15	11	6.5	
KANSAS																																
CONCORDIA U	1470	965.5	1013.5	88	65	76.8	- 3.6	97	21+	56	26	11	0			2.18	-0.65	0.58	14	16	0.0	0	9.7	SSE	40A	NW	7	7	21	3	4.7	74
DODGE CITY	2594	927.0	1013.9	89	66	77.3	- 2.9	99	22	57	17	16	0	64	67	9.13	6.82	4.01	15	19	0.0	0	10.6	SSE	41	NE	16	12	12	7	5.0	76
GOODLAND	3645	889.4	1013.9	89	60	74.7	- 1.9	101	7	53	17	13	0	58	62	2.29	-0.38	0.79	10	12	0.0	0	12.2	SSE	37*	WSW	21	11	15	5	4.7	
TOPEKA	877	979.7	1014.8	86	66	76.2	- 3.7	94	13+	53	26	11	0	67	75	3.68	0.08	1.42	9	12	0.0	0	10.0	S	56	N	22	6	16	9	6.0	69
WICHITA	1321	966.4	1014.0	90	70	80.0	- 0.9	100	22+	61	27	15	0	67	68	9.22	5.58	2.43	13	13	0.0	0	11.2	S	59	SE	4	9	12	10	5.7	65
KENTUCKY																																
COVINGTON	869	983.6	1015.1	85	63	74.3	- 2.1	91	14+	49	27	4	0	64	74	8.36	4.75	3.93	12	8	0.0	0	5.9	SSW	29*	WNW	23	4	14	13	6.6	
LEXINGTON	979	980.7	1015.8	85	65	75.4	- 2.0	92	14	51	27	3	0	65	75	4.24	0.26	0.87	12	13	0.0	0	4.5	SSW	23*	WSW	29	9	13	9	5.3	
LOUISVILLE	474	996.3	1015.3	87	65	76.2	- 0.9	94	14	50	27	7	0	67	75	1.84	-1.52	0.95	9	7	0.0	0	6.0	S	26	W	15	6	12	13	5.9	54
LOUISIANA																																
ALEXANDRIA	92	1012.4	1016.8	94	72	82.7		98	31	67	1	29	0	73	78	2.85		1.28	5	8	0.0	0	4.4	SW				11	17	3	4.4	
BATON ROUGE	64	1013.7	1016.7	94	75	84.2	2.4	97	19	70	2+	30	0	74	76	2.05	-4.22	0.71	6	12	0.0	0	5.5	W				10	19	2	4.4	
BURRWOOD R	5		1017.2					93	11+	71	6			77	77								7.9	NW								
LAKE CHARLES	14	1015.2	1016.7	94	75	84.1	1.3	98	31+	71	2+	29	0	74	78	0.48	-6.81	0.30	3	6	0.0	0	6.3	SW	20	SSW	15	7	21	3	5.0	
NEW ORLEANS	3	1014.4	1016.6	93	75	83.7	2.6	96	31+	70	3+	31	0	76	81	4.70	-2.02	1.80	10	13	0.0	0	6.0	WSW	28■	NNE	18	7	21	3	5.1	
NEW ORLEANS AUDUBON	10	1009.9		93	76	84.5		96	31+	72	20+	30	0			4.33		1.99	11	16	0.0	0										
SHREVEPORT	252	1007.4	1016.5	95	73	84.0	0.8	99	31+	70	27+	28	0	70	67	0.60	-3.15	0.50	3	3	0.0	0	8.0	SSW				19	7	5	3.6	■3
MAINE																																
CARIBOU	624	989.4	1012.5	69	51	60.3	- 4.2	83	8	41	3	0	0	52	76	6.72	2.68	2.18	19	5	0.0	0	10.4	WSW	31*	NNW	4	1	11	19	7.8	
PORTLAND	61	1009.4	1013.5	76	52	64.0	- 4.1	86	8	40	3	0	0	55	74	2.89	0.03	1.16	13	3	0.0	0	8.6	S	38	W	9	5	9	17	7.1	55
MARYLAND																																
BALTIMORE	146	1010.3	1015.2	85	62	73.6	- 3.2	95	21+	52	27	8	0	61	69	2.09	-2.13	0.78	11	4	0.0	0	8.7	W	57	NW	21	11	10	10	5.6	59
BALTIMORE U	14			85	68	76.4	- 2.7	95	8	60	27	7	0			2.40	-1.99	1.36	10		0.0	0										
FREDERICK	294			83	61	71.7	- 3.9	94	8	50	28	2	0			1.66	-2.26	0.72	5	0	0.0	0										
MASSACHUSETTS																																
BLUE HILL OBS R	629	989.9	1012.9	77	58	67.2	- 3.7	90	8	49	6	1	0		72	1.44	-1.83	1.17	6		0.0	0	11.8	SSW	37	W	21					61
BOSTON	15	1008.8	1013.5	78	62	70.4	- 3.3	89	8	55	6	0	0	55	63	1.61	-1.27	0.85	8	5	0.0	0	12.4	S	34	SW	9	7	10	14	6.0	67
NANTUCKET	43	1013.6	1014.3	73	59	65.9	- 1.6	81	20	53	18+	0	0	59	82	3.60	0.89	1.23	6	6	0.0	0	10.4	WSW	29	S	9	4	14	13	6.3	74
PITTSFIELD	1170			77	51	64.2	- 3.6	92	8	40	2	1	0			1.78	-3.11	0.61	10		0.0	0										
WORCESTER	986	977.9	1014.3	75	57	66.0	- 3.8	87	8	49	6	0	0	52	64	1.97	-1.66	0.62	11	5	0.0	0	6.9	W	25■	SW	9	6	11	14	6.3	
MICHIGAN																																
ALPENA	689	989.9		78	50	63.9	- 3.0	92	7	39	2	1	0			0.95	-1.91	0.51	9	2	0.0	0	6.8	NW$	24	NW	26	8	15	8	5.4	78
DETROIT	619	989.1	1015.4	80	62	71.0	- 2.9	91	11	53	27+	1	0	58	66	2.60	-0.22	1.11	10	4	0.0	0	7.8	WNW	41	NW	8	7	14	10	6.1	58
DETROIT M WAYNE CO	633	990.0	1015.2	81	58	69.4	- 3.5	91	11+	47	27	3	0	58	70	5.08	2.39	2.15	13	7	0.0	0	7.5	SW				4	16	11	6.4	
DETROIT WILLOW RUN	711	987.0	1015.0	82	59	70.6	- 3.6	93	11	50	27+	3	0	59	69	4.27	1.59	1.21	12	6	0.0	0	7.3	NNW	29	NW	12+	5	13	13	6.4	
ESCANABA U	594	992.8		74	55	64.6	- 2.6	84	11	45	26	0	0			2.01	-1.52	0.72	10	5	0.0	0	9.1		37	N	13	6	18	7	5.7	62
FLINT	766	988.1	1015.8	79	56	67.3	- 4.3	92	7	45	27	1	0	57	71	1.85	-1.06	1.10	8	6	0.0	0	7.1	E	22*	WSW	8	5	15	11	6.3	

See footnotes at end of table

CLIMATOLOGICAL DATA

ENGLISH UNITS

State and Station	Elevation (ground)	Pressure		Temperature											Average relative humidity	Precipitation							Wind					No. of days (sunrise to sunset)			Sky cover, tenths (sunrise to sunset)	Possible sunshine
												No. of days							No. of days		Snow, Sleet				Fastest mile							
		Station Ø	Sea level	Average maximum	Average minimum	Average	Departure from normal	Highest	Date	Lowest	Date	Max. 90 F. or above	Min. 32 F. or below	Average dew point		Total	Departure from normal	Greatest in 24 hours	.01 inch or more	With thunderstorms	Total	Maximum depth on ground	Average speed	Prevailing direction	Speed	Direction	Date	Clear, 0-3	Partly cloudy, 4-7	Cloudy, 8-10		
MICHIGAN	Ft.	Mb.	Mb.	F.	F.	F.	F.	F.		F.				F.	%	In.	In.	In.			In.	In.	M.p.h.		M.p.h.							%
GRAND RAPIDS	681	990.6	1015.5	80	59	69.3	- 2.6	92	7	49	27+	3	0	55	64	2.14	-0.59	1.42	6	1	0.0	0	8.8	WNW	27	NW	8	6	12	13	6.1	50
LANSING	852	983.5	1015.2	79	56	67.9	- 3.8	92	7	45	27	1	0	56	68	2.05	-0.53	1.20	9	2	0.0	0	10.0	WNW	45	W	8	6	11	14	6.4	71
MARQUETTE U	677	988.1		72	54	62.9	- 3.8	89	7	47	14	0	0			1.43	-1.77	0.38	11	2	0.0	0	6.5	W$	29	NW	8	5	14	12	6.0	72
MUSKEGON	627	992.5	1015.3	79	59	68.8	- 1.5	91	7	50	10	1	0	58	72	1.73	-0.68	0.70	5	2	0.0	0	8.1	WNW	22*	NNW	9	6	11	14	6.0	
SAULT STE MARIE	721	992.2	1014.9	74	51	62.7	- 1.4	89	7	43	10	0	0	52	73	1.08	-1.40	0.64	8	1	0.0	0	8.0	WNW	21*	WNW	26+	7	11	13	5.9	63
MINNESOTA																																
DULUTH	1426	974.6	1016.1	72	50	60.8	- 5.2	80	29+	39	23	0	0	50	72	2.97	-0.57	0.55	16	7	0.0	0	9.2	ESE	42	W	8	2	13	16	7.5	50
INTERNATIONAL FALLS	1179	974.4	1015.4	75	51	62.9	- 2.7	81	29+	42	30	0	0	54	74	6.61	3.12	2.60	16	10	0.0	0	6.4	NW	27*	W	24	4	13	14	6.6	
MINNEAPOLIS	822	982.8	1015.7	77	58	67.5	- 5.5	90	7	45	26	1	0	59	77	5.12	1.85	1.47	14	7	0.0	0	8.7	WNW	50	NNE	21	6	11	14	6.4	49
ROCHESTER	1297	968.8	1016.2	77	58	67.4	- 4.4	88	7	47	26	0	0	59	77	4.83	1.15	1.57	14	8	0.0	0	9.7	WNW				6	11	14	6.7	
ST CLOUD	1034	978.3	1016.0	77	57	67.0	- 4.0	89	7	47	26	0	0	44	76	6.20	2.94	1.75	13	8	0.0	0						9	10	12	6.0	
MISSISSIPPI																																
JACKSON	305	1004.2	1016.1	95	74	84.3	2.7	99	31+	65	20	30	0	70	67	1.49	-3.15	0.85	5	7	0.0	0	6.2	NW	25	E	13	9	18	4	4.4	86
MERIDIAN	292	1002.9	1016.4	97	70	83.4	1.9	101	23+	62	20	31	0	70	70	2.59	-3.63	1.97	6	9	0.0	0	5.4	S	23*	N	31	6	20	5	5.1	
VICKSBURG U	234	1007.0		92	74	83.1	1.3	96	31+	70	27+	26	0			0.66	-3.24	0.30	5	7	0.0	0	6.3		29	N	9	13	15	3	4.5	88
MISSOURI																																
COLUMBIA	778	986.6	1014.6	88	67	77.5	- 1.2	97	4+	50	27	13	0	65	69	3.58	0.17	2.42	8	9	0.0	0	8.0	SSE	35	NW	22	4	17	10	5.8	65
KANSAS CITY	742	980.4	1014.6	87	69	78.0	- 3.0	99	3	55	26	10	0	67	70	6.17	2.98	1.89	9	12	0.0	0	7.0	SSW	50	W	11	5	15	11	6.1	69
ST JOSEPH	809	980.9		86	66	76.1	- 3.3	97	3	55	26	11	0			4.87	1.65	1.43	13	13	0.0	0	8.2	S	35*	N	21	10	13	8	4.9	
ST LOUIS	535	995.3	1015.6	85	66	75.8	- 3.8	93	14+	51	27	10	0	65	71	5.49	2.19	2.00	7	7	0.0	0	6.3	NNW	38	NW	3	5	13	13	6.3	69
ST LOUIS RFC	465			87	70	78.6	- 2.1	96	14	59	26	10	0			3.98	0.67	1.54	6		0.0	0										
SPRINGFIELD	1265	971.0	1015.8	89	66	77.1	- 1.7	94	14	54	27+	14	0	66	72	0.80	-3.09	0.22	6	7	0.0	0	8.0	SSE	41	NW	11	7	15	9	5.8	69
MONTANA																																
BILLINGS	3567	892.7	1014.7	83	57	69.6	- 3.6	94	9	51	16	4	0	48	51	0.86	-0.04	0.36	9	8	0.0	0	8.8	NE	34	SW	17	15	8	8	4.7	77
GLASGOW	2277	941.4		78	55	66.6	- 4.1	86	12+	48	30	0	0	50	59	5.17	3.84	3.98	7	8	0.0	0						9	10	12	5.8	
GREAT FALLS	3662	890.6	1016.0	80	50	65.0	- 4.9	88	24+	42	4	0	0	42	49	1.09	-0.19	0.45	9	6	0.0	0	7.8	SW	32	NW	24+	7	14	10	5.7	64
HAVRE	2582	927.5		81	51	65.7	- 4.3	92	11	44	30+	1	0			1.66	0.39	0.61	13	6	0.0	0	7.2	E$	40	W	28	10	11	10	5.4	71
HELENA	3893	875.7	1016.2	79	51	65.2	- 3.2	89	24	38	19	0	0	43	49	1.27	0.24	0.42	11	14	0.0	0	7.6	WNW	38	W	12	9	13	9	5.4	70
KALISPELL	2965	913.0		81	45	62.8	- 2.9	90	31+	32	4+	6	2			0.16	-0.88	0.09	4	3	0.0	0	6.0					10	14	7	5.1	
MILES CITY	2629			84	58	70.8	- 4.5	97	1	48	4	6	0	52	58	4.51	3.17	2.02	10	12	0.0	0	8.4	NE	52*	NW	18	13	12	6	4.6	
MISSOULA	3190	903.8	1016.8	83	46	64.1	- 2.9	95	24	34	4	5	0	41	49	0.40	-0.45	0.19	4	7	0.0	0	7.1	NW	32	N	24	11	14	6	4.8	85
NEBRASKA																																
GRAND ISLAND	1841	949.7	764.0	83	61	71.9	- 6.8	96	7	48	26	5	0	62	75	8.78	6.27	1.61	15	13	0.0	0	9.3	SSE				12	14	5	4.4	
LINCOLN U	1150			86	65	75.4	- 4.7	97	7	53	26	7	0			6.29	3.02	1.72	16	15	0.0	0	8.8	S$	43	W	3	9	12	10	5.3	79
NORFOLK	1544	959.9		84	63	73.1	- 3.9	98	7	46	26	7	0			4.24	1.22	1.11	11	14	0.0	0						12	12	7	4.9	
NORTH PLATTE	2779	916.7	1014.0	84	60	72.0	- 4.1	97	7	51	17	3	0	60	69	5.33	2.81	1.28	12	16	0.0	0	9.5	SSE	56	NW	13	9	18	4	4.7	75
OMAHA	978	975.6	1014.8	86	66	75.6	- 2.9	95	19	54	26	10	0	64	69	7.55	4.18	1.93	12	9	0.0	0	9.4	SSE	49	N	19	7	17	7	5.4	71
OMAHA N OMAHA AP	1323	967.6		83	64	73.4	- 2.7	94	7	55	31	6	0			7.10	3.53	2.30	13	12	0.0	0						6	17	8	5.5	
SCOTTSBLUFF	3950	880.4	1014.0	85	58	71.0	- 3.7	95	21+	52	24+	5	0	56	66	3.65	2.20	0.80	13	15	0.0	0	9.9	SE	39*	NW	13	13	12	6	4.4	
VALENTINE	2587	925.0		83	58	70.8	- 4.6	94	6+	51	8	7	0			2.64	0.32	0.94	8	8	0.0	0	9.3	N$	32	N	10+	14	11	6	4.4	72
NEVADA																																
ELKO	5075	846.3	1014.3	87	46	66.4	- 3.2	93	21	38	4	8	0	34	32	0.46	0.06	0.35	9	7	0.0	0	6.9	SW	21*	SW	28+	13	12	6	4.0	
ELY	6257	811.7	1013.1	85	46	65.5	- 2.0	91	21	36	14	4	0	31	31	0.62	-0.03	0.48	6	6	0.0	0	7.8	S	42	S	12	16	11	4	3.7	84
LAS VEGAS	2162	945.5	1008.9	103	74	88.3	- 1.9	108	25	65	13+	31	0	32	15	T	-0.50	T	0	1	0.0	0	11.2	SW	36*	SSW	26	27	4		1.3	92
RENO	4404	864.2	1015.4	90	44	67.0	- 1.2	95	27+	38	7+	18	0	42	44	0.38	0.11	0.22	4	9	0.0	0	5.8	WNW	44	SW	26	21	7	3	2.7	89
WINNEMUCCA	4299	868.6		90	50	69.8	- 1.2	100	21	37	14	18	0	31	26	T	-0.27	T	0	0	0.0	0	8.1	WNW	34	W	31	16	10	5	3.6	90
NEW HAMPSHIRE																																
CONCORD	339	1003.1	1013.8	80	53	66.6	- 3.0	91	8	40	6	1	0	53	67	2.99	-0.42	2.06	10	6	0.0	0	5.6	NW	21	W	9+	10	10	11	5.9	57
MT WASHINGTON OBS	6262	840.7		50	38	43.9	- 5.2	60	12	27	5	0	5		90	11.48	4.77	3.08	17	5	0.1	T	24.5	W	86Y	W	27	2	10	19	7.7	32
NEW JERSEY																																
ATLANTIC CITY	58	1012.9	1015.1	83	63	72.9	- 2.2	91	8	55	28+	2	0	60	69	1.72	-2.00	0.80	12	5	0.0	0	9.2	S	35*	W	23	7	13	11	5.8	64
ATLANTIC CITY U	10			77	67	72.2	- 2.0	86	13	58	4	0	0			2.81	-1.05	1.15	11				11.8		40*	W	23					

See footnotes at end of table

CLIMATOLOGICAL DATA

ENGLISH UNITS

JULY 1962

State and Station	Elevation (ground)	Pressure		Temperature											Average relative humidity	Precipitation							Wind					No. of days (sunrise to sunset)			Sky cover, tenths (sunrise to sunset)	Possible sunshine
												No. of days							No. of days		Snow, Sleet				Fastest mile							
		Station Ø	Sea level	Average maximum	Average minimum	Average	Departure from normal	Highest	Date	Lowest	Date	Max. 90° F. or above	Min. 32° F. or below	Average dew point		Total	Departure from normal	Greatest in 24 hours	.01 inch or more	With thunderstorms	Total	Maximum depth on ground	Average speed	Prevailing direction	Speed	Direction	Date	Clear, 0-3	Partly cloudy, 4-7	Cloudy, 8-10		
NEW JERSEY	Ft.	Mb.	Mb.	F.	F.	F.	F.	F.		F.				F.	%	In.	In.	In.			In.	In.	M.p.h.		M.p.h.							%
NEWARK	11	1013.2	1014.6	83	65	73.9	- 2.4	96	8	57	27	3	0	57	60	2.34	-1.33	1.27	6	3	0.0	0	8.6	SW	35*	NNW	22	4	16	11	5.9	
TRENTON U	56	1006.9		83	63	73.0	- 3.0	92	8	55	27	3	0			1.87	-2.31	0.65	7	4	0.0	0	8.0	S	24	NW	27+	9	10	12	6.0	59
NEW MEXICO																																
ALBUQUERQUE	5310	850.3	1013.0	90	63	76.3	- 2.2	97	11	56	15+	18	0	50	47	1.24	0.04	0.72	8	9	0.0	0	7.8	ESE	43	SE	25	10	15	6	5.2	70
CLAYTON	4969	848.0		86	60	72.9	- 1.6	94	10	55	26	7	0			4.42	2.09	1.47	13	15	0.0	0						4	19	8	6.0	
RATON	6379	810.0		83	53	68.2	- 1.6	93	11	47	25+	4	0			1.83	-0.57	0.47	13	23	0.0	0						3	15	13	6.8	
ROSWELL	3619	893.7		92	65	78.2	1.1	101	10	55	15	22	0	60	62	3.44	1.67	1.53	16	18	0.0	0	8.4		34	N	8	5	14	12	6.0	63
SILVER CITY	5373	838.5		87	61	73.8		96	11	56	14	8	0			4.47		1.47	16	21	0.0	0						4	15	12	6.5	
NEW YORK																																
ALBANY	277	1009.7	1013.7	82	56	69.0	- 3.1	95	8	46	4	1	0	54	63	2.12	-1.37	0.70	8	6	0.0	0	7.8	S	26	W	27+	6	17	8	6.1	67
BINGHAMTON	1590	956.0	1014.3	76	56	66.1	- 3.3	90	8	47	6	1	0	54	69	1.88	-1.83	0.47	10	8	0.0	0	8.3	WSW	26	W	27	5	13	13	6.5	72
BUFFALO	705	987.2	1015.1	80	56	68.2	- 1.6	91	8	47	2	2	0	55	65	1.89	-0.68	0.66	9	7	0.0	0	9.0	WSW	30	W	27+	8	12	11	6.1	72
NEW YORK U	132	1002.7		84	64	74.0	- 2.8	96	8	57	27	7	0	56	58	1.67	-2.03	0.84	4	2	0.0	0	7.6	SW$	21	NW	27	14	12	5	4.7	62
NEW YORK LA GUARDIA	19	1011.9	1014.3	82	66	73.8	- 3.0	94	8	59	27	2	0	57	61	1.38	-2.33	0.90	4	3	0.0	0	13.5	S	28	W	26	6	15	10	5.8	
ROCHESTER	543	995.8	1014.9	79	56	67.6	- 4.0	93	8	49	6+	1	0	55	66	1.89	-0.95	0.65	10	8	0.0	0	9.7	WSW	36	W	27	10	12	9	5.4	71
SCHENECTADY	217			81	57	69.2	- 4.4	96	8	47	6	1	0			2.25	-1.21	1.05	8		0.0	0						18	9	4	3.4	
SYRACUSE	424	992.5	1014.0	80	58	69.2	- 3.0	97	8	50	6	1	0	53	61	2.74	-0.35	0.99	11	9	0.0	0	11.8	WNW	43	W	27	13	9	9	4.8	78
NORTH CAROLINA																																
ASHEVILLE U	2203	938.4		84	63	73.7	- 0.7	90	14	52	27	1	0			3.24	-1.07	1.62	13	8	0.0	0	5.7	NW$	20	NW	9	12	13	6	5.0	70
CAPE HATTERAS R	7	1014.5	1015.3	84	71	77.2	- 0.8	92	15	57	28	1	0	70	78	3.24	-2.91	1.45	11	6	0.0	0	11.1	WSW	46	NW	24	8	12	11	5.7	70
CHARLOTTE	735	988.0	1015.8	88	69	78.6	- 0.1	98	16+	54	28	13	0	65	69	1.96	-2.92	0.94	9	8	0.0	0	6.5	SW	59	NW	23	7	15	9	5.7	67
GREENSBORO	891	984.5	1016.0	86	65	75.3	- 2.0	96	15	53	27	10	0	65	75	2.93	-1.86	1.05	11	7	0.0	0	6.8	SW	38	NNE	15	7	15	9	5.7	59
RALEIGH	433	1001.7	1015.4	86	65	75.7	- 2.2	95	16+	52	28	6	0	66	77	7.07	1.58	2.42	9	12	0.0	0	6.3	SSW	69*	SW	21	8	13	10	5.9	55
WILMINGTON	30	1013.0	1015.9	89	71	79.6	- 0.4	97	15	64	1	11	0	72	81	5.86	-1.82	2.76	13	6	0.0	0	7.6	SSW	25	SW	14	5	12	14	6.6	65
WINSTON SALEM	967	981.1	1016.1	86	66	75.8	- 2.2	96	15	55	27	9	0	64	69	4.07	-0.56	1.39	9	7	0.0	0	7.3	SW	35*	NNW	16	12	8	11	5.4	
NORTH DAKOTA																																
BISMARCK	1647	956.3	1015.5	80	55	67.4	- 4.8	88	27+	42	30+	0	0	57	71	2.40	0.21	0.77	13	9	0.0	0	6.8	WNW	36	NW	3	10	11	10	5.7	81
DEVILS LAKE U	1471	962.4		76	55	65.4	- 4.3	83	27+	46	30+	0	0			2.21	-0.36	0.76	16	8	0.0	0	6.7	NW$	24	NE	3	10	12	9	5.2	69
FARGO	900	981.0	1010.9	79	59	68.8	- 2.6	86	29+	45	26	0	0	60	74	5.92	3.01	1.72	15	11	0.0	0	7.1	S	47	NW	6	7	16	8	5.9	60
WILLISTON U	1899	949.9		78	53	65.5	- 5.8	87	9	42	4	0	0			4.10	2.23	1.98	12	3	0.0	0	9.0	SE$	45	NW	6	6	12	13	6.2	61
OHIO																																
AKRON	1209	978.2	1016.1	81	60	70.4	- 1.2	91	8+	50	27	2	0	57	67	3.81	0.04	1.68	12	4	0.0	0	7.2	SW	35	NW	21	2	18	11	6.4	
CINCINNATI OBS	761			85	65	75.1	- 1.8	91	12+	54	27	2	0			7.06	3.47	1.66	12	7	0.0	0	4.3	S	21	W	23					76
CINCINNATI U	553	992.2		87	67	77.0	- 1.1	93	2	56	27	8	0			5.83	2.13	2.21	12	6	0.0	0										
CLEVELAND	777	987.5	1015.1	80	59	69.4	- 1.6	92	8	48	27	1	0	59	71	3.42	0.11	2.08	11	5	0.0	0	9.0	SSW	26Y	NW	25+	5	13	13	6.4	67
COLUMBUS	812	985.6	1015.4	82	61	71.3	- 3.5	89	8	45	27	0	0	62	75	3.59	-0.34	1.39	12	8	0.0	0	6.4	SSW	29	W	11	3	19	9	6.2	70
COLUMBUS U	724			82	65	73.7	- 2.7	91	7	54	27	2	0			4.19	0.52	1.47	10	8	0.0	0										
DAYTON	997	979.4	1015.2	82	63	72.5	- 2.7	90	6	51	27	1	0	62	74	6.78	3.25	1.57	11	9	0.0	0	7.6	NW	29	NW	2	3	19	9	6.2	62
MANSFIELD	1296			80	60	69.7	- 2.0	88	8+	48	27	0	0			3.50	0.02	1.39	11	8	0.0	0						3	18	10	6.6	
SANDUSKY U	606	993.3		80	64	71.9	- 3.1	93	8	53	27	2	0			3.93	0.40	1.64	10	5	0.0	0	7.6		48	NW	8	6	18	7	5.4	72
TOLEDO	676	990.0	1015.1	80	59	69.6	- 3.1	90	7	49	27+	1	0	60	74	4.28	1.69	1.36	10	4	0.0	0	7.2	ENE	31	W	8	4	16	11	6.3	59
YOUNGSTOWN	1178	973.5	1015.8	80	58	68.5	- 2.5	90	7	46	10	1	0	56	67	2.40	-1.92	0.63	11	5	0.0	0	8.3	SW	23*	W	23	5	12	14	6.6	
OKLAHOMA																																
OKLAHOMA CITY	1280	972.2	1014.7	93	72	82.2	1.2	100	12	66	26	21	0	70	69	1.71	-0.66	0.65	8	6	0.0	0	11.6	SSE	40	SW	13	10	11	10	5.3	77
TULSA	676	990.8	1014.8	92	71	81.5	- 0.7	100	8+	60	27	20	0	66	64	4.83	1.89	1.61	11	11	0.0	0	8.8	SSE	25	NW	31+	11	9	11	5.4	57
OREGON																																
ASTORIA	8	1020.3	1020.8	65	51	58.2	- 1.9	75	21	43	3+	0	0	52	83	0.34	-0.93	0.22	5	0	0.0	0	9.0	NNW	24*	SW	4+	4	10	17	7.4	
BURNS U	4151	874.7		83	49	66.3	- 3.2	95	23+	34	2	7	0	35	33	0.01	-0.33	0.01	1	2	0.0	0						15	8	8	4.0	
EUGENE	361	1005.4		82	48	64.9	- 1.7	96	27+	40	3+	8	0			T	-0.27	T	0	0	0.0	0	7.5		21*	N	2	20	5	6	3.2	
MEACHAM	4050			75	48	61.2	- 2.2	89	24	33	2	0	0			T	-0.50	T	0	0	0.0	0						14	13	4	4.2	
MEDFORD	1298	969.5	1016.7	92	50	70.9	- 1.1	103	27+	38	2	17	0	45	44	T	-0.21	T	0	1	0.0	0	5.7	NW	20*	NNW	8	27	3	1	1.4	
PENDLETON	1482	963.1	1015.8	89	57	72.9	- 0.7	104	24	45	2	14	0	37	29	T	-0.22	T	0	0	0.0	0	9.5	WNW	32*	W	12	20	7	4	3.1	
PORTLAND	21	1013.2	1018.8	79	54	66.4	- 0.8	92	27+	44	2	5	0	51	61	0.06	-0.35	0.06	1	0	0.0	0	8.8	NW	22	NW	2	11	13	7	4.8	68

See footnotes at end of table

CLIMATOLOGICAL DATA

ENGLISH UNITS

State and Station	Elevation (ground)	Pressure		Temperature											Average relative humidity	Precipitation							Wind					No. of days (sunrise to sunset)			Sky cover, tenths (sunrise to sunset)	Possible sunshine
												No. of days							No. of days		Snow, Sleet				Fastest mile							
		Station Ø	Sea level	Average maximum	Average minimum	Average	Departure from normal	Highest	Date	Lowest	Date	Max. 90 F. or above	Min. 32 F. or below	Average dew point		Total	Departure from normal	Greatest in 24 hours	.01 inch or more	With thunderstorms	Total	Maximum depth on ground	Average speed	Prevailing direction	Speed	Direction	Date	Clear, 0-3	Partly cloudy, 4-7	Cloudy, 8-10		
	Ft.	Mb.	Mb.	F.	F.	F.	F.	F.		F.				F.	%	In.	In.	In.			In.	In.	M.p.h.		M.p.h.							%
OREGON																																
PORTLAND U	30			78	56	67.1	- 1.5	93	26	48	2	5	0			T	-0.39	T	0		0.0	0										
ROSEBURG	505	999.7		86	50	68.2	0.3	101	27	39	3	11	0			T	-0.21	T	0	0	0.0	0	6.3	N$	21	N	17	24	5	2	2.5	91
SALEM	195	1011.9	1019.1	82	47	64.3	- 2.8	97	26	37	2	8	0	50	63	T	-0.35	T	0	0	0.0	0	6.1	N	17*	NNE	6+	12	15	4	4.2	
SEXTON SUMMIT R	3836	886.9		76	52	64.0	0.4	89	27+	40	18+	0	0			0.00	-0.32	0.00	0	1	0.0	0	12.4	N				28	2	1	1.3	
PACIFIC AREA																																
CANTON ISLAND	8	1008.5	1008.9	87	78	82.4	- 1.2	89	24+	73	12	0	0	73	75	2.72	0.13	1.03	14	0	0.0	0	14.3	E	24*	E	28+	4	15	12	6.3	
ENIWETOK	13	1009.5	1010.6	87	78	82.6	0.2	89	31	74	22+	0	0	75	77	6.16	1.59	2.87	21	0	0.0	0	18.5									
TAGUAC GUAM R	361			86	73	79.6	0.1	89	22	69	18	0	0			14.98	6.00	2.70	27	6	0.0	0	5.3	E$	30	E	31					51
KOROR R	94	1004.7	1008.3	86	75	80.7	- 0.2	90	1	72	22+	1	0	76	87	34.82	9.65	8.23	27	1	0.0	0	7.3	NW	29	SW	29	0	0	31	9.8	45
KWAJALEIN	8	1008.1	1009.0	87	76	81.0	0.2	88	31+	73	31+	0	0	75	81	10.67	1.76	2.18	26	0	0.0	0	13.6	E	41*	E	5	0	10	21	8.2	
MAJURO	10	1010.5	1010.8	86	77	81.3	1.0	88	12	74	24+	0	0	74	78	7.54	-5.30	1.52	24	1	0.0	0	8.8	ENE	27	E	27	3	6	21	8.2	61
PONAPE R	123	1003.3	1008.4	87	73	80.3	0.6	90	24+	70	22	4	0	75	87	13.60	-2.62	2.52	27	1	0.0	0	3.4	E	23	SE	28	0	1	30	9.5	40
TRUK MOEN ISLAND	5	1007.7	1008.0	85	75	80.2	- 0.3	88	10+	70	15+	0	0	75	85	32.99	0.66	10.07	27	2	0.0	0	7.0	SW	41	NW	28	0	2	29	9.5	8
WAKE ISLAND	11	1011.8	1012.2	88	76	81.9	- 0.1	90	10+	69	20	2	0	75	80	19.44	5.66	4.47	27	1	0.0	0	6.9	SW	35	W	28	0	1	30	9.7	74
YAP R	55	1005.4	1007.2	87	75	80.8	- 0.6	90	31	72	28+	1	0	76	87	8.49	3.89	2.03	25	1	0.0	0	9.3	ENE	25*	SSE	24	0	14	17	7.6	
PENNSYLVANIA																																
ALLENTOWN	376	1000.8	1015.0	84	60	71.5	- 2.6	94	8	52	28+	4	0	57	64	1.61	-3.21	0.78	5	3	0.0	0	8.7	SW	52*	WSW	23	7	14	10	5.8	
ERIE	732	989.1	1015.0	78	61	69.5	- 1.6	93	8	50	10	1	0	56	65	2.39	-1.28	1.29	10	7	0.0	0	11.3	WNW	25*	SSW	26	8	15	8	5.6	
HARRISBURG	335	1000.8	1014.6	86	64	74.9	- 0.8	98	8	51	28	9	0	60	63	1.20	-2.31	0.64	6	4	0.0	0	6.7	NW	29	SW	23	5	14	12	6.2	68
PHILADELPHIA	5	1010.1	1014.6	82	62	72.0	- 3.6	90	13+	53	28+	2	0	59	67	2.30	-1.86	0.92	7	2	0.0	0	7.3	WSW	34	NW	23	6	15	10	6.2	57
PHILADELPHIA U	35			84	66	74.7	- 2.5	94	8	58	27	4	0																			
PITTSBURGH	1151	985.6	1016.1	81	59	70.1	- 2.0	89	8+	47	28	0	0	58	69	2.44	-1.44	1.75	9	5	0.0	0	7.4	SW	23*	NW	25+	1	15	15	7.2	62
PITTSBURGH U	749			82	64	72.9	- 2.9	91	8+	55	28+	2	0			3.13	-0.47	2.11	10		0.0	0										51
READING U	266	1002.7	1014.2	84	64	73.9	- 3.0	95	8	54	4	3	0			0.52	-3.74	0.25	6	2	0.0	0	9.1	W$	35	N	22	7	13	11	5.7	62
SCRANTON	940	981.1	1014.9	83	58	70.3	- 1.1	94	8	49	5	2	0	54	61	1.48	-3.31	0.58	6	5	0.0	0	8.1	SW	24	W	9	5	16	10	6.1	57
WILLIAMSPORT	527	995.8	1014.8	83	58	70.6	- 3.0	95	8	48	28	2	0	55	63	2.54	-1.64	1.45	7	7	0.0	0	8.7	W	23*	NW	27+	5	15	11	6.3	
RHODE ISLAND																																
BLOCK ISLAND	110	1009.5		74	61	67.2	- 2.4	81	1	51	6	0	0			1.97	-0.72	0.74	6	4	0.0	0						3	12	16	7.1	
PROVIDENCE	55	1007.9	1014.0	78	59	68.5	- 3.6	85	12	51	6	0	0	58	71	1.62	-1.29	1.31	7	4	0.0	0	9.4	WSW	23*	W	12	6	13	12	6.2	56
SOUTH CAROLINA																																
CHARLESTON	41	1013.6	1015.7	89	72	80.8	0.7	95	24	66	28	17	0	71	77	5.93	-1.78	2.76	12	11	0.0	0	7.4	S	35Y	NE	29	4	14	13	6.6	67
CHARLESTON U	9			88	76	81.8	0.3	95	16	70	5	9	0			3.39	-4.39	0.98	13		0.0	0	9.1		24	NE	27					
COLUMBIA	217	1002.6	1015.2	93	70	81.6	0.0	101	24	58	28	25	0	69	71	2.67	-3.42	1.10	10	9	0.0	0	6.6	SW	21*	NNW	25+	8	10	13	6.1	53
FLORENCE	146	1009.6	1015.4	91	70	80.6	- 0.1	100	23+	60	28	21	0	70	75	3.71	-2.53	1.10	9	10	0.0	0	7.0	SSW	17*	W	16+	6	15	10	6.1	
GREENVILLE	1009	978.9	1015.4	91	70	80.3	- 0.2	100	23	61	27	20	0	68	72	3.57	-1.36	1.12	7	10	0.0	0	5.7	E	22	SW	24	9	14	8	5.5	61
SPARTANBURG	801	986.3	1015.5	90	69	79.1	- 0.1	99	23+	58	28	14	0	66	70	1.40	-2.96	1.19	7	7	0.0	0	5.7	SW	23*	NW	8	9	13	9	5.4	
SOUTH DAKOTA																																
HURON	1282	968.6	1015.0	80	60	69.9	- 5.6	91	7	46	26	2	0	63	81	4.89	3.08	1.85	12	8	0.0	0	9.5	SSE	44	W	3	11	9	11	5.2	66
RAPID CITY	3165	902.9	1015.2	81	58	69.2	- 4.6	91	18	51	15	2	0	58	71	4.53	2.75	2.06	13	18	0.0	0	9.9	NNW	33	N	29	10	14	7	4.9	63
SIOUX FALLS	1420	964.2	1015.1	81	61	70.7	- 3.6	94	7	47	26	4	0	62	76	5.50	2.66	1.17	14	12	0.0	0	9.1	S	38*	WNW	29	12	11	8	5.0	
TENNESSEE																																
BRISTOL	1507	962.8	1016.4	84	64	74.0	- 1.4	91	15	51	27	2	0	64	74	3.27	-2.28	1.51	10	4	0.0	0	4.1	WSW	18*	WNW	26	6	15	10	6.2	
CHATTANOOGA	670	988.9	1016.0	90	68	79.1	- 0.1	100	23	57	28	19	0	69	76	4.89	-0.22	2.15	13	11	0.0	0	5.7	S	34	W	23	8	10	13	5.9	67
KNOXVILLE	950	981.5	1016.5	89	68	78.3	- 0.6	96	13	57	27	13	0	66	70	7.82	3.00	4.47	10	6	0.0	0	6.9	SW	53	SW	24	7	12	12	6.0	58
MEMPHIS	263	1001.4	1015.8	90	72	81.3	- 0.5	96	13+	60	27	19	0	71	72	3.94	0.40	1.35	8	6	0.0	0	8.3	SW	39	NE	6	9	14	8	5.3	81
MEMPHIS U	271			89	74	81.6	- 0.1	96	13	61	27	17	0			4.80	1.38	1.58	8		0.0	0										
NASHVILLE	577	995.9	1015.4	91	68	79.1	- 1.1	97	23+	55	28	23	0	67	71	1.97	-1.75	0.75	5	7	0.0	0	6.0	S	29	W	8	9	10	12	5.7	69
OAK RIDGE	905	984.5		87	66	76.1	- 1.6	95	15	54	27	9	0			4.28	-1.67	1.26	9	3	0.0	0	3.5		27Y		24	15	6	10	4.5	
TEXAS																																
ABILENE	1759	953.9	1013.7	94	71	82.8	- 0.4	102	14+	66	16	25	0	65	61	4.54	2.26	2.82	6	7	0.0	0	9.4	SSE	33	S	14	16	9	6	4.3	74
AMARILLO	3607	890.2	1013.1	90	67	78.0	- 1.1	98	22+	59	15	19	0	62	64	7.51	5.17	2.62	16	16	0.0	0	12.1	SSW	38	NE	22	7	16	8	5.7	78
AUSTIN	597	993.5	1015.1	97	74	85.4	0.9	101	30+	71	13+	30	0	68	61	0.00	-2.18	0.00	0		0.0	0	8.7	S	22	S	16+	19	9	3	3.4	87
BROWNSVILLE	16	1012.8	1015.4	92	76	83.9	- 0.1	96	28	73	6+	29	0	73	74	T	-1.68	T	0		0.0	0	13.2	SE	26	SE	28+	20	10	1	3.1	86

See footnotes at end of table

CLIMATOLOGICAL DATA
ENGLISH UNITS

State and Station	Elevation (ground)	Pressure		Temperature											Average relative humidity	Precipitation							Wind					No. of days (sunrise to sunset)			Sky cover, tenths (sunrise to sunset)	Possible sunshine
												No. of days							No. of days		Snow, Sleet				Fastest mile							
		Station Ø	Sea level	Average maximum	Average minimum	Average	Departure from normal	Highest	Date	Lowest	Date	Max. 90°F. or above	Min. 32°F. or below	Average dew point		Total	Departure from normal	Greatest in 24 hours	.01 inch or more	With thunderstorms	Total	Maximum depth on ground	Average speed	Prevailing direction	Speed	Direction	Date	Clear, 0-3	Partly cloudy, 4-7	Cloudy, 8-10		
TEXAS	Ft.	Mb.	Mb.	°F.	F.	°F.	°F.	°F.		°F.				°F.	%	In.	In.	In.			In.	In.	M.p.h.		M.p.h.							%
CORPUS CHRISTI	43	1014.5	1015.7	95	76	85.4	1.3	97	31+	73	20+	31	0	73	71	T	-2.32	T	0		0.0	0	13.7	SSE	27	SE	14	20	10	1	3.0	97
DALLAS	481		1015.2	94	75	84.7	- 0.2	100	12	70	27	27	0	69	62	8.52	6.58	4.71	4	6	0.0	0	11.3	S	30	N	15	16	5	10	4.2	68
DEL RIO U	957			99	77	87.9	2.4	103	28+	71	1	31	0			0.29	-1.02	0.25	2	2	0.0	0										
EL PASO	3918	886.9	1011.6	93	70	81.3	- 0.1	100	8	65	30+	26	0	57	48	1.82	0.53	0.47	13	16	0.0	0	7.5	S	41	S	30	11	13	7	4.9	72
FORT WORTH	544	994.4	1014.8	96	76	85.5	0.1	102	12	71	27	27	0	69	61	6.36	4.61	3.07	6	8	0.0	0	10.0	S	35*	E	27	17	4	10	4.1	
GALVESTON U	7			87	81	84.0	0.9	90	19+	78	31	2	0			T	-4.79	T	0		0.0	0	10.4		19	S	24					100
GALVESTON	5	1014.7	1017.0	90	80	84.8	1.2	92	26+	75	1	18	0	72	67	0.00	-4.87	0.00	0	6	0.0	0	8.7	S				21	10		2.8	
HOUSTON U	41			94	78	86.1	2.2	99	30	72	16+	30	0			1.55	-3.60	1.04	4		0.0	0										
HOUSTON	50	1013.3	1016.1	94	74	84.1	0.1	98	31+	69	4	28	0	75	79	0.07	-4.22	0.04	2	6	0.0	0	7.7	S				12	18	1	4.1	84
LAREDO	500	998.0	1013.2	103	77	89.9	2.4	106	28	75	11+	31	0	65	51	0.00	-1.36	0.00	0		0.0	0	15.5	SE	25*	SE	30	24	7		1.6	
LUBBOCK	3243	904.9	1014.3	91	66	78.7	- 0.8	98	14+	61	18	20	0	63	64	4.85	2.84	1.55	15	10	0.0	0	11.9	S	28*	SSW	13+	8	16	7	5.4	
MIDLAND	2854	915.6	1011.5	94	70	82.2	- 0.7	102	15	64	17	27	0	61	54	2.12	0.24	1.03	6	7	0.0	0	10.6	SSE	35*	W	10	8	16	7	5.3	
PORT ARTHUR	16	1014.7	1016.2	95	73	84.1	2.2	99	31+	69	5+	31	0	75	78	1.48	-4.52	0.76	4	7	0.0	0	6.7	SSW	34	N	18	10	20	1	4.3	85
SAN ANGELO	1903	947.3	1011.3	99	74	86.4	1.6	105	14+	69	18+	29	0	61	49	1.96	0.55	1.92	3	5	0.0	0	8.6	SSE	35*	N	15	17	8	6	3.6	
SAN ANTONIO	792	990.1	1014.7	99	75	86.9	2.9	103	28	73	29+	31	0	68	59	0.13	-1.96	0.13	1		0.0	0	10.9	SSE	25	SE	16	21	9	1	2.7	85
VICTORIA	104	1011.1		95	74	84.5	1.3	99	31	71	5	30	0			1.17	-2.44	1.17	1	1	0.0	0	9.2		31*		1	21	9	1	2.9	
WACO	500	994.2	1015.0	97	75	86.0	0.7	102	30	71	6	30	0	69	60	0.07	-1.92	0.07	1		0.0	0	13.4	S	27	S	14	20	8	3	2.9	
WICHITA FALLS	994	977.5	1013.6	95	73	84.0	- 1.1	104	12+	68	16	26	0	68	63	3.81	1.84	2.99	5	9	0.0	0	9.1	S	26*	WSW	14	12	8	11	5.1	
UTAH																																
MILFORD	5028	845.6	1012.2	91	50	70.9	- 2.9	99	21	42	14	23	0			0.36	-0.34	0.27	5	8	0.0	0						18	10	3	2.5	
SALT LAKE CITY	4220	868.3	1012.8	92	60	75.9	- 0.5	99	21+	50	13	22	0	42	34	2.52	1.94	2.35	4	8	0.0	0	9.1	S	37	W	13	19	5	7	3.3	[illegible]6
WENDOVER	4237	870.6		90	66	77.6	- 1.8	99	5	59	13	15	0			0.27	-0.04	0.11	4	8	0.0	0						21	7	3	2.7	
VERMONT																																
BURLINGTON	331	998.6	1013.2	77	52	64.0	- 6.5	92	8	39	6	1	0	54	72	5.93	2.08	1.75	16	7	0.0	0	6.5	S	26	NW	13	6	11	14	6.4	61
VIRGINIA																																
LYNCHBURG	947	990.5		82	63	72.6	- 3.7	89	8	53	28+	0	0			5.17	0.96	1.09	15	9	0.0	0	6.7		26	N	16+	9	10	12	5.9	56
NORFOLK	26	1014.0	1015.4	83	67	75.2	- 3.6	91	14	57	28	3	0	67	79	9.05	3.13	3.57	10	5	0.0	0	9.2	SW	26	NE	12	6	15	10	5.9	62
RICHMOND	162	1009.2	1015.3	85	64	74.8	- 3.3	93	12+	52	28+	9	0	66	77	5.65	0.04	2.21	9	4	0.0	0	6.8	SSW	19	SW	23+	7	12	12	6.3	64
ROANOKE	1174	974.5	1016.2	85	64	74.2	- 2.4	92	20+	50	28	9	0	62	69	5.34	1.09	1.49	10	4	0.0	0	8.2	WSW	35*	WSW	23	8	12	11	5.9	
WASHINGTON																																
OLYMPIA	190	1012.5	1019.7	78	46	61.9	- 2.0	94	23	35	3	6	0	50	67	0.14	-0.62	0.08	2	0	0.0	0	6.0	SW	18*	WNW	17+	11	9	11	5.3	
SEATTLE TACOMA	400	1005.4	1019.4	74	53	63.5	- 0.4	88	28+	48	19+	0	0	51	68	0.69	-0.12	0.39	6	1	0.0	0	8.3	SW	23*	SSW	1	12	5	14	5.2	
SEATTLE	14		1019.3											51	64								6.2	NNW								
SEATTLE U	14			75	56	65.1	- 0.5	90	28+	50	2	2	0			1.11	0.48	0.68	5		0.0	0			26	SW	4					65
SPOKANE	2357	947.2	1015.4	83	53	68.2	- 1.3	97	25+	39	2	11	0	40	39	0.29	-0.09	0.19	4	4	0.0	0	8.6	SW	36	SW	17	16	13	2	4.0	84
STAMPEDE PASS R	3958	883.5		64	46	55.0	- 1.2	81	30+	34	2+	0	0			1.79	0.33	0.63	8	0	2.1	1						13	7	11	5.1	
TATOOSH ISLAND	101	1017.6	1020.5	58	50	54.0	- 1.5	68	22	48	31+	0	0	51	91	0.89	-1.45	0.45	6	0	0.0	0	12.4	S	26	S	4	7	8	16	6.9	40
WALLA WALLA U	949	979.0		88	62	74.5	- 1.5	103	24	48	2	13	0			T	-0.21	T	0	0	0.0	0	5.0	WS	26	W	1	18	9	4	3.5	89
YAKIMA	1061	976.6	1015.1	87	52	69.7	- 1.3	101	25	36	2	14	0	43	41	0.01	-0.12	0.01	1	0	0.0	0	7.6	WNW	28*	WNW	1	16	12	3	3.3	
WEST INDIES																																
SAN JUAN P.R. U	47			85	76	80.9	0.8	88	17+	72	20	0	0			4.33	-1.69	0.91	15	3												
SAN JUAN P.R.	15	1014.5	1017.4	88	75	81.7	1.3	92	11+	72	31+	6	0	73	7[illegible]	6.46	0.21	1.47	22	5	0.0	0	8.5	ENE	25	E	19+	2	22	7	5.8	62
SWAN ISLAND	28	1012.8		88	78	83.0	0.5	90	26+	72	27	2	0			4.40	0.20	1.89	15	10	0.0	0						9	13	9	5.7	
WEST VIRGINIA																																
CHARLESTON	939	980.5	1015.5	82	64	73.0	- 1.4	88	14	50	28+	0	0	66	81	8.03	2.36	1.96	18	12	0.0	0	4.3	SW	32*	W	14	3	13	15	7.1	
ELKINS	1970	948.0	1016.7	78	56	66.8		86	8+	42	28	0	0	59	78	3.16		1.03	13	7	0.0	0	4.8	WNW	26	NNW	23	2	10	19	7.5	
HUNTINGTON U	827	985.8	1015.8	81	63	72.0	- 5.2	88	14	47	27	0	0	65	81	8.57	3.62	4.27	15	12	0.0	0	4.9	SSW	18*	WSW	14	3	13	15	6.8	
PARKERSBURG U	615			83	63	73.0	- 2.8	90	7	52	27	1	0			4.84	0.73	1.57	13	7	0.0	0	5.3		30	SW	8					45
WISCONSIN																																
GREEN BAY	682	992.9	1015.3	77	56	66.5	- 3.0	88	7	46	31	0	0	58	76	2.70	-0.01	0.90	10	7	0.0	0	6.0	NE	29	N	24+	6	11	14	6.5	55
LA CROSSE	652	991.0	1016.6	78	60	68.6	- 5.2	90	7	49	26	1	0	51	64	3.22	-0.53	0.71	12	6	0.0	0	7.9	SE	44*	N	24	4	12	15	6.9	
MADISON	858	980.6	1015.4	78	57	67.3	- 3.8	88	11+	45	31	0	0	60	77	4.39	0.81	2.16	16	9	0.0	0	7.6	WNW	31	NW	25	6	11	14	6.6	43
MILWAUKEE	672	991.1	1016.0	75	58	66.7	- 2.0	86	10	50	26	0	0	59	78	3.74	0.79	1.60	12	7	0.0	0	9.1	NNE	39	W	22	7	11	13	5.9	54

See footnotes at end of table

CLIMATOLOGICAL DATA
ENGLISH UNITS

State and Station	Elevation (ground)	Pressure		Temperature											Average relative humidity	Precipitation							Wind					No. of days (sunrise to sunset)			Sky cover, tenths (sunrise to sunset)	Possible sunshine
												No. of days							No. of days		Snow, Sleet				Fastest mile							
		Station Ø	Sea level	Average maximum	Average minimum	Average	Departure from normal	Highest	Date	Lowest	Date	Max. 90 F. or above	Min. 32 F. or below	Average dew point		Total	Departure from normal	Greatest in 24 hours	.01 inch or more	With thunderstorms	Total	Maximum depth on ground	Average speed	Prevailing direction	Speed	Direction	Date	Clear, 0-3	Partly cloudy, 4-7	Cloudy, 8-10		
WYOMING	Ft.	Mb.	Mb.	F.	F.	F.	F.	F.		F.				F.	%	In.	In.	In.			In.	In.	M.p.h.		M.p.h.							%
CASPER	5319	839.8	1014.0	82	53	67.8	- 3.9	94	6	44	15	5	0	43	48	1.24	0.24	0.39	9	15	0.0	0	8.9	WSW	46*	W	1	15	8	8	4.6	
CHEYENNE	6126	816.8	1015.3	79	52	65.6	- 3.4	88	21	44	24	0	0	50	64	4.02	2.20	0.80	20	22	0.0	0	10.3	WNW	36	NE	27	10	13	8	4.8	62
LANDER	5563	837.5	1014.0	83	53	68.3	- 2.3	93	6	45	15+	6	0	41	43	1.72	0.95	0.52	8	12	0.0	0	7.3	WSW	43	S	17	11	13	7	4.5	75
SHERIDAN	3942	887.2	1011.4	81	52	66.5	- 4.8	90	9+	45	30	2	0	46	53	1.57	0.38	0.66	9	12	0.0	0	4.9	NW	47	NW	9	13	11	7	4.8	71

Data from airport unless otherwise specified. U indicates Urban, R indicates Rural, sites.
* Value entered in column headed "Fastest Mile" is the highest observed wind speed. This station is not equipped with an automatic recording wind instrument.
Ø Station pressures apply to elevations shown in the "Elevations - Station Pressure" table of the annual issue of this publication.

A Maximum hourly average.
+ And also on an earlier date or dates.
B Number of days maximum 70°F. or above for Alaskan Stations.
$ Wind direction to 8 compass points only.
Y Peak Gust.

CLIMATOLOGICAL DATA

METRIC UNITS

State and Station	Elevation (ground)	Pressure: Station	Pressure: Sea level	Temperature: Average maximum	Average minimum	Average	Departure from normal	Highest	Date	Lowest	Date	No. of days: Max 32.2 °C or above	No. of days: Min. 0 C or lower	Average dew point	Average relative humidity	Precipitation: Total	Departure from normal	Greatest in 24 hours	No of days: 25 mm or more	No of days: With thunderstorms	Snow, Sleet: Total	Snow, Sleet: Maximum depth on ground	Wind: Average speed	Prevailing direction	Fastest mile (1.6 kilometers): Speed	Fastest mile: Direction	Fastest mile: Date	No of days (sunrise to sunset): Clear, 0-3	Partly cloudy, 4-7	Cloudy, 8-10	Sky cover, tenths (sunrise to sunset)	Possible sunshine
ALABAMA	M.	Mb.	Mb.	C	C.	C.	C.	C.		C.				C.	%	Mm.	Mm.	Mm.			Mm	Mm.	M.p.s.		M.p.s							%
BIRMINGHAM	186	991.6	1016.5	35.0	21.7	28.1	1.4	38.9	23	16.7	10	28	0	20.0	65	99	- 32	48	12	9	0	0	2.8	NE	15.2	NW	4	5	12	14	6.5	69
HUNTSVILLE	184	993.1	1016.0	33.9	20.6	27.1	-0.2	38.3	23+	15.6	28+	26	0	18.9	66	55	- 53	34	8	7	0	0	2.5	N	11.2*	NNW	5	7	12	12	5.8	
MOBILE	64	1013.7	1016.0	33.9	23.3	28.6	1.3	36.7	9	21.1	27+	29	0	22.8	77	138	-107	49	15	16	0	0	2.6	SW	10.3*	SSW	28	3	21	7	6.2	
MONTGOMERY	59	1008.0	1016.0	34.4	22.2	28.3	0.7	36.7	23	18.3	10	30	0	21.1	69	96	- 41	43	8	10	0	0	3.0	W	15.2	N	7	4	19	8	5.9	58
ALASKA												B																				
ANCHORAGE	27	1013.9	1018.7	18.9	10.6	14.7	0.7	23.9	6	8.3	30+	8	0	10.0	74	18	- 29	7	7	0	0	0	2.4	W	8.9*	NNE	1	4	7	20	7.5	50
ANNETTE	34	1017.3	1021.2	19.4	11.7	15.5	1.7	27.2	5	7.8	16	12	0	10.6	75	76	- 77	22	12	0	0	0	2.6	SSE	8.0*	S	11	6	7	18	6.8	
BARROW	7	1014.6	1015.3	8.3	0.6	4.7	0.7	17.8	17	- 2.8	5+	0	18	2.8	88	31	12	13	12	0	5	T	4.9	E	14.3*	WSW	27	0	5	26	8.6	
BARTER ISLAND	12	1013.9	1015.7	7.8	0.6	4.3	-0.9	18.9	19	- 3.3	5+	0	12	2.2	89	40	17	21	7	0	T	0	4.6	ENE	11.2*	WSW	28	2	13	16	7.5	
BETHEL	38	1015.6	1017.0	20.0	10.0	15.1	2.4	27.8	17+	7.2	8	10	0	10.6	76	28	- 23	12	9	0	0	0	5.1	SSW	13.0*	S	7	3	9	19	7.7	
COLD BAY	29	1014.2	1018.2	12.8	8.3	10.8	0.9	17.2	24	5.0	24	0	0	8.3	87	87	40	35	13	0	0	0	7.0	SSE	20.6*	SSE	6	0	3	28	9.1	
CORDOVA	12	1018.6	1020.2	15.6	8.3	11.9	0.1	20.0	28+	3.9	24	0	0	10.0	88	101	- 59	34	19	1	0	0	2.5	E	8.9*	WSW	24	0	5	26	9.2	
FAIRBANKS	133	999.3	1016.2	23.3	11.7	17.5	2.1	30.0	31+	5.0	1	24	0	11.1	69	110	64	41	11	1	0	0	3.0	SW	10.7*	SW	7	4	9	18	7.3	
JUNEAU	5	1019.0	1019.8	18.3	8.9	13.7	0.8	25.6	29+	5.6	16+	11	0	8.9	76	121	7	37	12	0	0	0	2.9	NNW	10.3*	ESE	11	5	8	18	7.3	40
KING SALMON	13	1015.2	1017.3	19.4	6.9	13.9	1.2	27.8	1	5.0	18+	11	0	9.4	79	63	10	15	13	2	0	0	3.6	SW	10.3*	SSW	21+	4	7	20	7.7	
KOTZEBUE	3	1014.9	1015.5	15.6	10.6	12.9	1.4	20.6	18	6.7	21	0	0	10.6	83	51	14	20	15	0	0	0	4.3	WNW	10.3*	WNW	21	3	4	24	8.0	
MC GRATH	102	1004.4	1017.1	23.3	10.6	16.8	2.0	31.1	20	6.1	23	23	0	9.4	66	15	- 46	7	11	3	0	0	2.2	S	9.4*	S	24	5	5	21	7.3	
NOME	4	1015.9	1016.4	14.4	8.3	11.6	1.9	22.2	18	5.0	22	3	0	8.9	84	17	- 41	8	9	0	0	0	4.6	WSW	10.3*	W	24+	4	6	21	7.8	33
ST. PAUL ISLAND	7	1015.2	1016.0	10.6	6.1	8.2	0.7	16.1	26+	3.9	17	0	0	7.2	95	50	- 7	24	16	0	0	0	5.8	SE	12.5*	ESE	31	0	3	28	9.5	
SHEMYA	37	1010.2		10.6	7.8	9.2	1.2	12.2	23+	5.6	2	0	0	8.3	98	65	11	17	13	0	0	0	5.2	S	13.4*	SSE	23+	0	0	31	10.0	
YAKUTAT	9	1019.3	1020.5	15.0	8.9	11.8	-0.4	20.6	19	3.9	16	0	0	10.0	89	179	- 35	65	17	0	0	0	3.0	ESE	10.3*	ESE	10	3	6	22	8.2	
ARIZONA																																
FLAGSTAFF	2131	794.4	1016.1	27.2	9.4	18.1	-0.8	29.4	20+	3.3	14	0	0	3.9	44	60	2	39	9	12	0	0	2.8	SSW	9.8*	S	12	11	15	5	4.7	
PHOENIX	338	971.6	1009.6	40.6	23.9	32.3	-0.6	44.4	11	19.4	1	31	0	10.6	28	3	- 17	3	1	2	0	0	2.6	W	15.6*	SE	20	20	8	3	2.9	95
PRESCOTT	1528	849.0	1012.8	32.2	15.6	23.9	-0.6	36.1	20	11.7	14	21	0	6.1	37	49	- 4	37	8	9	0	0	3.4	SSW	20.1	SW	12	17	10	4	3.6	80
TUCSON	788	924.8	1010.5	36.1	22.8	29.4	-0.7	39.4	17+	18.3	14	31	0	11.1	37	35	- 17	9	10	15	0	0	4.2	S	24.1	W	29	10	10	11	5.6	79
WINSLOW	1487	853.4	1012.8	34.4	16.7	25.6	-1.5	37.8	10	12.2	16	26	0	5.0	31	1	- 25	1	4	10	0	0	4.4	SW	23.2*	SW	17	10	12	9	5.1	
YUMA	61	1004.1	1009.0	42.2	25.6	34.1	-0.8	45.0	11+	20.0	13	31	0	11.7	29	T	- 6	T	0	0	0	0	4.0	S	10.7	SE	8	28	2	1	1.3	96
ARKANSAS																																
FORT SMITH	137	998.4	1015.2	35.0	21.7	28.2	-0.2	40.0	8	18.9	27	25	0	21.1	72	116	45	55	9	7	0	0	2.7	ENE	13.0	N	21	13	8	10	5.0	61
LITTLE ROCK	78	1002.8	1015.8	33.3	22.2	27.7	0.0	37.2	23	16.7	27	24	0	22.2	74	79	- 6	46	8	7	0	0	2.7	SW	10.7	N	8	11	12	8	5.0	71
TEXARKANA	110		1016.0	34.4	22.8	28.4	0.3	37.2	23	18.9	27	27	0	22.2	75	80	- 18	34	5	7	0	0	3.1	SW								
CALIFORNIA																																
BAKERSFIELD	151	994.9	1012.1	36.7	20.0	28.2	-0.8	38.9	27+	16.7	13	29	0	8.9	31	0	-	0	0	0	0	0	3.1	NW	6.3*	WNW	19+	30	1	0	.2	
BISHOP	1252	874.0		35.0	12.2	23.7	-0.8	37.8	26	8.3	1	29	0			2	- 2	1	2	4	0	0						25	5	1	2.1	
BLUE CANYON	1609	841.9		25.6	15.6	20.3	0.1	28.9	26+	8.9	12	0	0			3	1	3	2	2	0	0	2.8	WSW	9.4	ESE	12	25	5	1	1.5	
BURBANK	213	988.5	1014.1	28.3	14.4	21.4	-1.8	32.8	7	12.8	30+	3	0	12.8	66	T	0	T	0	0	0	0	3.5	S	7.2*	SE	23+	23	8	0	2.2	
EUREKA U	13	1015.6		14.4	10.0	12.1	-1.4	16.1	4	8.3	22+	0	0			T	- 3	T	0	0	0	0	3.1	NW$	11.6	N	1	9	7	15	6.3	54
FRESNO	99	999.7	1011.2	37.2	17.2	27.2	0.2	40.0	27	13.9	13	30	0	8.9	36	T	0	T	0	1	0	0	3.0	WNW	8.9	NW	11	30	1	0	.3	99
LONG BEACH	10	1013.2	1014.8	26.1	14.4	20.4	-1.8	30.0	7	11.1	2+	0	0	14.4	77	T	0	T	0	0	0	0	3.3	WNW	7.6*	W	18	20	9	2	3.5	
LOS ANGELES	30	1011.5	1015.1	22.2	15.6	18.9	-1.0	24.4	11	13.3	2+	0	0	14.4	79	T	-	T	0	0	0	0	2.6	WSW	7.6*	WSW	22	17	6	8	4.4	
LOS ANGELES U	95			26.7	15.6	21.2	-1.6	30.0	8	13.9	7+	0	0	13.9	70	0	0	0	0	0	0	0	2.5	W$	7.2	W	29+	23	7	1	2.5	82
MT SHASTA R	1080	893.0		30.0	10.0	19.9	-0.1	35.6	27	6.1	2	12	0			T	- 8	T	0	6	0	0						25	6	0	1.3	
OAKLAND	1	1014.9	1015.1	21.1	12.2	16.5	-1.4	26.1	14	10.0	6	0	0	10.6	73	T	0	T	0	0	0	0	4.0	WNW	11.2*	W	11	15	12	4	3.5	
POINT ARGUELLO	112	1002.0		16.7	11.1	13.7	-1.1	20.0	18	9.4	1	0	0			2	2	1	9	0	0	0	2.7		9.4*	WSW	18	0	5	26	9.1	
RED BLUFF	104	999.0	1011.4	37.2	19.4	28.3	-0.4	42.8	26	16.1	19+	31	0	7.2	29	0	- 1	0	0	0	0	0	3.9	SSE	9.8	NW	16+	27	4	0	1.1	96
SACRAMENTO	5	1011.5	1012.6	34.4	13.3	23.9	-1.3	40.0	21	11.1	19+	28	0	11.7	54	0	0	0	0	0	0	0	3.1	SSW	10.3	W	12	26	5	0	.9	100
SACRAMENTO U	7			33.3	13.9	23.7	-0.8	38.9	21	11.7	13+	22	0			0	0	0	0		0	0										
SANDBERG R	1377	864.2		28.3	16.7	22.6	-1.0	32.8	25+	11.1	13	2	0			0	- 1	0	0	0	0	0	4.8	N	10.7*	NNW	13+	30	1	0	.2	
SAN DIEGO	4	1011.2	1014.3	23.3	16.7	20.2	-0.7	25.6	10	15.6	15+	0	0	15.0	76	T	-	T	0	0	0	0	3.3	NW	7.6	NW	21+	20	6	5	3.9	70
SAN FRANCISCO	2	1014.9	1015.6	20.6	10.6	15.7	-1.4	25.6	15	9.4	15+	0	0	10.0	76	T	-	T	0	0	0	0	5.3	WNW	14.8	W	11	20	9	2	2.8	
SAN FRANCISCO U	16			16.1	10.6	13.3	-1.6	19.4	2	9.4	21+	0	0			T	-	T	0	0	0	0	4.9	SW$	12.5	W	11					57
SANTA MARIA	73	1007.1	1015.9	20.6	11.1	15.8	-1.0	22.8	30+	7.2	2	0	0	11.7	85	T	- 1	T	0	0	0	0	3.0	WNW	9.8*	WNW	12	14	17	0	3.8	
COLORADO																																
ALAMOSA	2297	776.5		26.7	7.8	17.2	-1.1	30.6	11	2.8	14	0	0			12	- 15	6	11	9	0	0						5	19	7	5.6	
COLORADO SPRINGS	1882	815.8	1016.3	28.3	12.8	20.5	-0.6	32.8	10	10.0	25+	5	0	8.9	55	41	- 20	10	11	17	0	0	3.5	NNE	15.6*	NW	1	6	19	6	5.1	
DENVER	1610	840.5	1013.5	31.7	13.9	22.7	-0.3	36.1	6	10.0	15	15	0	7.8	46	14	- 25	6	5	6	0	0	4.0	SSW	15.6	N	15	11	17	3	4.7	78
GRAND JUNCTION	1478	859.8	1011.7	32.8	16.7	24.9	-0.7	36.7	11	11.7	14	21	0	1.7	26	2	- 12	1	3	6	0	0	3.0	ESE	21.5	NW	25	13	16	2	4.1	83

See footnotes at end of table

CLIMATOLOGICAL DATA

METRIC UNITS

State and Station	Elevation (ground)	Pressure		Temperature											Average relative humidity	Precipitation							Wind					No. of days (sunrise to sunset)			Sky cover, tenths (sunrise to sunset)	Possible sunshine
												No. of days							No. of days		Snow, Sleet				Fastest mile (1.6 kilometers)							
		Station Ø	Sea level	Average maximum	Average minimum	Average	Departure from normal	Highest	Date	Lowest	Date	Max 32 2 °C or above	Min. 0 C or lower	Average dew point		Total	Departure from normal	Greatest in 24 hours	.25 mm. or more	With thunderstorms	Total	Maximum depth on ground	Average speed	Prevailing direction	Speed	Direction	Date	Clear, 0-3	Partly cloudy, 4-7	Cloudy, 8-10		
COLORADO	M.	Mb.	Mb.	C.	C.	C.	C.	C.		C.				C.	%	Mm.	Mm.	Mm.			Mm	Mm.	M.p.s.		M.p.s							%
PUEBLO	1414	858.5	1013.6	32.2	15.0	23.6	-1.1	37.2	7	11.7	25	17	0	11.1	54	49	3	18	10	14	0	0	4.3	SE	19.7	W	30	10	14	7	5.3	77
CONNECTICUT																																
BRIDGEPORT	2	1014.1	1015.1	26.1	16.1	21.2	-2.0	30.6	8	12.8	2	0	0	15.0	72	50	- 46	20	6	5	0	0	5.1	WSW	15.6*	NW	21	5	15	11	6.2	
HARTFORD	52	1007.8	1013.9	27.8	13.3	20.6	-1.8	34.4	8	6.7	2	1	0	13.9	70	42	- 50	24	7	5	0	0	3.0	S	14.3	SW	12	4	15	12	6.5	62
NEW HAVEN	2	1014.1		26.1	15.6	20.6	-1.6	30.6	8	11.1	6	0	0			51	- 36	22	7	5	0	0	3.1		15.2	SW	23	6	14	11	6.2	68
DELAWARE																																
WILMINGTON	24	1011.6	1014.9	28.3	16.7	22.6	-1.9	33.9	8	10.6	27	5	0	15.6	68	45	- 63	17	9	3	0	0	3.6	WNW	13.9*	WNW	23	7	13	11	6.0	
DIST.OF COLUMBIA																																
WASHINGTON U	22			28.9	18.9	23.8	-1.7	34.4	8	14.4	28+	6	0			42	- 62	10	8													
WASH NATL AP	4	1011.1	1015.5	28.9	18.9	24.1	-1.6	35.0	21	15.0	28	6	0	17.2	69	41	- 64	22	8	3	0	0	3.3	S	12.1	SW	23	10	10	11	5.7	64
FLORIDA																																
APALACHICOLA U	4	1014.3		32.2	25.0	28.7	1.2	35.6	9	22.8	4	16	0			43	-158	24	10	12	0	0	2.5		12.5	NW	31	3	20	8	6.1	61
DAYTONA BEACH	9	1015.8	1017.5	32.2	22.2	27.4	0.7	35.0	25	18.3	3	19	0	21.1	75	255	84	86	15	22	0	0	3.3	SW	10.3*	WSW	18+	3	11	17	7.3	
FORT MYERS	4	1016.6		33.3	25.0	29.1	1.2	35.0	23	22.8	1	27	0			153	- 78	34	10	22	0	0	3.7		12.5*	ESE	24	3	19	9	6.3	
JACKSONVILLE	7	1015.6	1017.1	34.4	23.3	28.9	0.8	37.2	12	19.4	1	29	0	22.8	76	160	- 35	49	18	17	0	0	2.9	SW	17.4	SE	21	3	15	13	6.5	51
KEY WEST	2	1016.3	1017.5	32.8	27.2	30.1	1.6	33.9	18+	24.4	2	30	0	23.3	68	33	- 73	19	9	12	0	0	3.9	ESE	9.8	SE	24+	4	18	9	6.0	76
LAKELAND U	65			33.3	23.3	28.3	0.7	35.6	24+	20.6	20	26	0			114	- 97	44	13	24	0	0	2.6					0	13	18	7.4	61
MIAMI BEACH	3			32.2	26.7	29.3	1.4	35.0	16	22.8	3	17	0			115	2	33	15		0	0	2.5		11.6	NW	9+	9	16	6	5.3	61
MIAMI	2	1016.3	1017.6	32.2	24.4	28.5	0.8	33.9	26+	22.8	1	20	0	22.8	75	95	- 76	36	10	22	0	0	3.0	ESE	17.0*	S	6	4	18	9	6.1	
ORLANDO	32	1012.9	1017.5	34.4	23.3	28.8	1.3	37.2	25	20.6	7	30	0	22.8	76	324	121	68	14	17	0	0	3.5	SW	13.0*	WSW	10+	3	19	9	6.3	
PENSACOLA U	4			32.8	24.4	28.6	0.9	36.1	21+	21.7	12	20	0			167	- 25	52	13	13	0	0	3.5	N	11.2	NW	22					69
TALLAHASSEE	18	1014.1	1016.7	33.9	22.2	28.0	0.6	36.7	12+	20.6	11+	27	0	22.8	79	124	- 81	32	20	22	0	0	3.4	SW	15.6*	SSE	17	0	21	10	6.7	
TAMPA	6	1015.9	1017.5	32.2	24.4	28.3	0.8	34.4	2	22.2	1	23	0	22.8	74	59	-160	18	10	18	0	0	4.2	W	17.4*	WNW	5	2	14	15	6.8	61
WEST PALM BEACH	5	1016.6	1017.7	33.3	23.9	28.6	0.5	35.6	27	20.6	2+	28	0	23.3	78	205	36	55	18	18	0	0	3.3	SE	16.5*	NNW	1	3	16	12	6.6	
GEORGIA																																
ATHENS	245	987.6	1016.3	32.8	20.0	26.3	-0.2	37.2	23	16.1	28	20	0	20.6	74	98	- 29	27	14	11	0	0	2.9	WSW	12.5*	WSW	24	7	14	10	5.9	
ATLANTA	306	975.0	1016.1	31.1	20.6	25.9	-0.1	34.4	23	16.1	27	12	0	20.6	78	133	13	39	11	13	0	0	2.6	WNW	9.4*	NW	25	6	15	10	5.7	73
AUGUSTA	44	1008.9	1015.3	33.9	21.7	27.8	0.7	38.9	24	15.6	28	25	0	21.1	73	45	- 69	22	11	11	0	0	2.5	SE	13.0*	WNW	19	5	13	13	6.4	
COLUMBUS	117	1002.4		33.9	21.7	27.8	0.6	36.7	24+	17.8	1	27	0			191	42	60	13	14	0	0	2.5		23.2*	N	18	4	17	10	6.2	
MACON	109	1002.0	1015.4	35.0	22.2	28.6	0.9	38.3	23	18.9	1	29	0	21.1	69	45	- 99	27	10	11	0	0	3.1	WNW	10.3	NW	15	6	9	16	6.6	66
ROME	194	993.3		32.2	19.4	25.6	-0.5	35.6	23	13.3	28	21	0			142	18	31	12	11	0	0						9	13	9	5.7	
SAVANNAH	15	1013.8	1016.5	33.3	22.2	27.7	0.3	35.6	24+	18.9	1	24	0	22.2	76	204	37	60	13	11	0	0	3.3	SW	18.8	N	22	2	16	13	6.8	74
THOMASVILLE U	86			35.0	22.8	28.7	0.9	36.7	24+	21.1	21+	29	0			107	- 66	39	15	17	0	0						3	19	9	6.3	
HAWAII																																
HILO	9	1015.6	1017.2	27.8	19.4	23.5	-0.3	30.6	27	17.8	8+	0	0	18.9	79	203	- 46	30	31	0	0	0	3.1	WSW	9.8*	ENE	30	1	6	24	8.2	37
HONOLULU	2	1016.6	1016.9	29.4	22.8	26.2	0.2	31.7	27	21.1	9+	0	0	18.9	66	3	- 8	2	4	0	0	0	7.0	ENE	14.3	NE	28	5	18	8	5.6	90
LIHUE	35	1012.5	1017.8	29.4	22.8	26.1	0.8	30.6	29+	19.4	25	0	0	19.4	69	39	- 10	15	15	0	0	0	6.3	NE	12.5	NE	30+	4	20	7	5.8	74
IDAHO																																
BOISE	865	919.1	1013.5	31.1	13.9	22.3	-1.4	37.2	22	6.7	2	13	0	4.4	34	1	- 4	1	2	1	0	0	3.7	WNW	13.0	SW	30	19	9	3	3.5	87
IDAHO FALLS 42NW R	1460			28.9	8.9	18.8	-1.8	33.9	21+	3.9	20	6	0			31	20	19	5													
IDAHO FALLS 46W R	1504	850.0		28.9	9.4	18.9	-1.6	34.4	21	3.9	20+	6	0			18	12	14	6	2	0	0	3.3	WSW	13.0A	WSW	12					
LEWISTON	438	963.4		30.6	13.9	22.3	-0.9	38.3	24	7.2	3	16	0			3	- 8	2	4	4	0	0						15	11	5	4.1	
POCATELLO	1355	864.9	1014.7	30.0	11.7	20.6	-1.8	35.6	21	5.6	19	11	0	2.8	37	19	6	13	5	7	0	0	3.9	WSW	14.8	SW	30	11	11	9	4.9	80
ILLINOIS																																
CAIRO U	96	1002.6		32.2	22.2	27.2	-0.1	36.7	14	14.4	27	19	0			68	- 13	31	8	8	0	0	2.9	SW$	15.2	NW	6	9	14	8	5.3	78
CHICAGO O HARE	201	990.7	1015.2	26.1	15.0	20.7		32.2	7	9.4	26	1	0	15.6	73	134		73	12	5	0	0	3.5	NNE	8.9*	WNW	8	6	10	15	6.5	
CHICAGO MIDWAY	186	992.8	1015.4	26.7	17.8	22.3	-2.0	33.9	7	11.7	26	2	0	15.0	67	118	33	46	9	4	0	0	3.9	E	13.4	NW	22	5	11	15	6.6	72
MOLINE	177	992.9	1014.8	27.2	16.7	22.0	-2.2	33.9	7	9.4	26	4	0	17.8	79	171	88	89	11	12	0	0	3.2	E	13.9	S	11	7	11	13	6.6	57
PEORIA	199	993.9	1016.0	28.3	16.7	22.2	-2.2	32.2	11	8.3	27	1	0	17.2	76	70	- 20	39	8	8	0	0	3.9	S	14.3	W	22	6	13	12	6.3	62
ROCKFORD	222	988.4	1015.4	28.9	16.1	20.8	-2.6	32.2	7	10.0	26	1	0	15.6	74	141	36	59	11	9	0	0	4.0	ENE	10.3*	WNW	25	7	10	14	6.3	
SPRINGFIELD	179	992.1	1014.9	28.9	17.8	23.2	-1.8	33.3	1	10.0	27	5	0	18.3	75	97	8	36	11	8	0	0	3.6	SW	32.6	SW	13	9	11	11	5.8	68
INDIANA																																
EVANSVILLE	116	1000.1	1015.6	32.2	18.9	25.4	-0.3	36.1	14	9.4	27	17	0	19.4	72	46	- 38	14	12	9	0	0	2.5	NW	13.0	N	23+	7	11	13	6.1	82
FORT WAYNE	241	984.8	1015.5	27.8	16.7	22.1	-1.3	33.3	7	10.6	10	2	0	16.1	71	52	- 33	26	10	5	0	0	3.8	NW	11.6	SW	11+	4	13	14	6.8	63

See footnotes at end of table

CLIMATOLOGICAL DATA

METRIC UNITS

State and Station	Elevation (ground)	Pressure		Temperature											Average relative humidity	Precipitation							Wind					No. of days (sunrise to sunset)			Sky cover, tenths (sunrise to sunset)	Possible sunshine
												No. of days							No. of days		Snow, Sleet				Fastest mile (1.6 kilometers)							
		Station Ø	Sea level	Average maximum	Average minimum	Average	Departure from normal	Highest	Date	Lowest	Date	Max. 32.2 °C or above	Min. 0 C or lower	Average dew point		Total	Departure from normal	Greatest in 24 hours	.25 mm. or more	With thunderstorms	Total	Maximum depth on ground	Average speed	Prevailing direction	Speed	Direction	Date	Clear, 0-3	Partly cloudy, 4-7	Cloudy, 8-10		
	M.	Mb.	Mb.	C.	C.	C.	C.	C.		°C.				C.	%	Mm.	Mm.	Mm.			Mm.	Mm.	M.p.s.		M.p.s.							%
INDIANA																																
INDIANAPOLIS	242	985.9	1015.5	28.3	17.2	22.9	-1.1	32.8	7+	10.6	27+	3	0	17.8	77	174	86	86	9	8	0	0	3.0	N	18.3*	N	11	4	15	12	6.6	67
SOUTH BEND	234	987.3	1015.2	25.6	16.1	20.7	-2.4	32.2	7	9.4	10	1	0	15.6	75	124	36	84	11	4	0	0	3.8	NW	38.4*	WNW	25	6	11	14	6.6	
IOWA																																
BURLINGTON	212	990.6	1015.9	28.9	17.2	23.2	-1.6	33.3	3	8.9	26	5	0	17.8	76	91	4	25	11	11	0	0	3.6	NW	20.1	W	4	7	11	13	6.3	69
DES MOINES	289	984.7	1015.5	28.9	18.3	23.5	-1.5	35.0	7+	11.7	26	4	0	18.3	75	75	- 3	29	12	10	0	0	2.5	SSE	15.6	N	7	5	15	11	6.5	64
DUBUQUE	325	990.3		25.6	15.0	20.2	-2.3	31.1	11	8.9	31+	0	0			227	138	65	11	9	0	0						7	10	14	6.6	
SIOUX CITY	334	974.3	1014.9	28.3	17.8	22.9	-1.7	33.3	19+	9.4	26	4	0	18.3	78	155	76	66	12	11	0	0	3.4	SSE	12.5	N	10	12	11	8	4.9	66
WATERLOO	265	984.0	1015.6	26.1	16.1	20.9	-2.6	32.2	7	7.8	31	1	0	17.2	79	187	90	58	12	6	0	0	3.5	NW	20.6*	NNW	7	5	15	11	6.5	
KANSAS																																
CONCORDIA U	448	965.5	1013.5	31.1	18.3	24.9	-2.0	36.1	21+	13.3	26	11	0			55	- 17	15	14	16	0	0	4.3	SSE	17.9A	NW	7	7	21	3	4.7	74
DODGE CITY	791	927.0	1013.9	31.7	18.9	25.2	-1.6	37.2	22	13.9	17	16	0	17.8	67	232	173	102	15	19	0	0	4.7	SSE	18.3	NE	16	12	12	7	5.0	76
GOODLAND	1111	889.4	1013.9	31.7	15.6	23.7	-1.1	38.3	7	11.7	17	13	0	14.4	62	58	- 10	20	10	12	0	0	5.5	SSE	16.5*	WSW	21	11	15	5	4.7	
TOPEKA	267	979.7	1014.8	30.0	18.9	24.6	-2.1	34.4	13+	11.7	26	11	0	19.4	75	93	2	36	9	12	0	0	4.5	S	25.0	N	22	6	16	9	6.0	69
WICHITA	403	966.4	1014.0	32.2	21.1	26.7	-0.5	37.8	22+	16.1	27	15	0	19.4	68	234	142	62	13	13	0	0	5.0	S	26.4	SE	4	9	12	10	5.7	65
KENTUCKY																																
COVINGTON	265	983.6	1015.1	29.4	17.2	23.5	-1.2	32.8	14+	9.4	27	4	0	17.8	74	212	121	100	12	8	0	0	2.6	SSW	13.0*	WNW	23	4	14	13	6.6	
LEXINGTON	298	980.7	1015.8	29.4	18.3	24.1	-1.1	33.3	14	10.6	27	3	0	18.3	75	108	7	22	12	13	0	0	2.0	SSW	10.3*	WSW	29	9	13	9	5.3	
LOUISVILLE	144	996.3	1015.3	30.6	18.3	24.6	-0.5	34.4	14	10.0	27	7	0	19.4	75	47	- 39	24	9	7	0	0	2.7	S	11.6	W	15	6	12	13	5.9	54
LOUISIANA																																
ALEXANDRIA	28	1012.4	1016.8	34.4	22.2	28.2		36.7	31	19.4	1	29	0	22.8	78	72		33	5	8	0	0	2.0	SW				11	17	3	4.4	
BATON ROUGE	20	1013.7	1016.7	34.4	23.9	29.0	1.3	36.1	19	21.1	2+	30	0	23.3	76	52	-107	18	6	12	0	0	2.5	W				10	19	2	4.4	
BURRWOOD R	2		1017.2					33.9	11+	21.7	6			25.0	77								3.5	NW								
LAKE CHARLES	4	1015.2	1016.7	34.4	23.9	28.9	0.7	36.7	31+	21.7	2+	29	0	23.3	78	12	-173	8	3	6	0	0	2.8	SW	8.9	SSW	15	7	21	3	5.0	
NEW ORLEANS	1	1014.4	1016.6	33.9	23.9	28.7	1.4	35.6	31+	21.1	3+	31	0	24.4	81	119	- 51	46	10	13	0	0	2.7	WSW	12.5*	NNE	18	7	21	3	5.1	
NEW ORLEANS AUDUBON	3	1009.9		33.9	24.4	29.2		35.6	31+	22.2	20+	30	0			110		51	11	16	0	0										
SHREVEPORT	77	1007.4	1016.5	35.0	22.8	28.9	0.4	37.2	31+	21.1	27+	28	0	21.1	67	15	- 80	13	3	3	0	0	3.6	SSW				19	7	5	3.6	83
MAINE																																
CARIBOU	190	989.4	1012.5	20.6	10.6	15.7	-2.3	28.3	8	5.0	3	0	0	11.1	76	171	68	55	19	5	0	0	4.6	WSW	13.9*	NNW	4	1	11	19	7.8	
PORTLAND	19	1009.4	1013.5	24.4	11.1	17.8	-2.3	30.0	8	4.4	3	0	0	12.8	74	73	1	29	13	3	0	0	3.8	S	17.0	W	9	5	9	17	7.1	55
MARYLAND																																
BALTIMORE	45	1010.3	1015.2	29.4	16.7	23.1	-1.8	35.0	21+	11.1	27	8	0	16.1	69	53	- 54	20	11	4	0	0	3.9	W	25.5	NW	21	11	10	10	5.6	59
BALTIMORE U	4			29.4	20.0	24.7	-1.5	35.0	8	15.6	27	7	0			61	- 51	35	10		0	0										
FREDERICK	90			28.3	16.1	22.1	-2.2	34.4	8	10.0	28	2	0			42	- 57	18	5	0	0	0										
MASSACHUSETTS																																
BLUE HILL OBS R	192	989.9	1012.9	25.0	14.4	19.6	-2.1	32.2	8	9.4	6	1	0		72	37	- 46	30	6		0	0	5.3	SSW	16.5	W	21					61
BOSTON	5	1008.8	1013.5	25.6	16.7	21.3	-1.8	31.7	8	12.8	6	0	0	12.8	63	41	- 32	22	8	5	0	0	5.5	S	15.2	SW	9	7	10	14	6.0	67
NANTUCKET	13	1013.6	1014.3	22.8	15.0	18.8	-0.9	27.2	20	11.7	18+	0	0	15.0	82	91	23	31	6	6	0	0	4.6	WSW	13.0	S	9	4	14	13	6.3	74
PITTSFIELD	357			25.0	10.6	17.9	-2.0	33.3	8	4.4	2	1	0			45	- 79	15	10		0	0										
WORCESTER	301	977.9	1014.3	23.9	13.9	18.9	-2.1	30.6	8	9.4	6	0	0	11.1	64	50	- 42	16	11	5	0	0	3.1	W	11.2*	SW	9	6	11	14	6.3	
MICHIGAN																																
ALPENA	210	989.9		25.6	10.0	17.7	-1.7	33.3	7	3.9	2	1	0			24	- 49	13	9	2	0	0	3.0	NW$	10.7	NW	26	8	15	8	5.4	78
DETROIT	189	989.1	1015.4	26.7	16.7	21.7	-1.6	32.8	11	11.7	27+	1	0	14.4	66	66	- 6	28	10	4	0	0	3.5	WNW	18.3	NW	8	7	14	10	6.1	58
DETROIT M WAYNE CO	193	990.0	1015.2	27.2	14.4	20.8	-1.9	32.8	11+	8.3	27	3	0	14.4	70	129	61	55	13	7	0	0	3.4	SW				4	16	11	6.4	
DETROIT WILLOW RUN	217	987.0	1015.0	27.8	15.0	21.4	-2.0	33.9	11	10.0	27+	3	0	15.0	69	108	40	31	12	6	0	0	3.3	NNW	13.0	NW	12+	5	13	13	6.4	
ESCANABA U	181	992.8		23.3	12.8	18.1	-1.4	28.9	11	7.2	26	0	0			51	- 39	18	10	5	0	0	4.1		16.5	N	13	6	18	7	5.7	62
FLINT	233	988.1	1015.8	26.1	13.3	19.6	-2.4	33.3	7	7.2	27	1	0	13.9	71	47	- 27	28	8	6	0	0	3.2	E	9.8*	WSW	8	5	15	11	6.3	
GRAND RAPIDS	208	990.6	1015.5	26.7	15.0	20.7	-1.4	33.3	7	9.4	27+	3	0	12.8	64	54	- 15	36	6	1	0	0	3.9	WNW	12.1	NW	8	6	12	13	6.1	50
LANSING	260	983.5	1015.2	26.1	13.3	19.9	-2.1	33.3	7	7.2	27	1	0	13.3	68	52	- 13	30	9	2	0	0	4.5	WNW	20.1	W	8	6	11	14	6.4	71
MARQUETTE U	206	988.1		22.2	12.2	17.2	-2.1	31.7	7	8.3	14	0	0			36	- 45	10	11	2	0	0	2.9	W$	13.0	NW	8	5	14	12	6.0	72
MUSKEGON	191	992.5	1015.3	26.1	15.0	20.4	-0.8	32.8	7	10.0	10	1	0	14.4	72	44	- 17	18	5	2	0	0	3.6	WNW	9.8*	NNW	9	6	11	14	6.0	
SAULT STE MARIE	220	992.2	1014.9	23.3	10.6	17.1	-0.8	31.7	7	6.1	10	0	0	11.1	73	27	- 36	16	8	1	0	0	3.6	WNW	9.4*	WNW	26+	7	11	13	5.9	63
MINNESOTA																																
DULUTH	435	974.6	1016.1	22.2	10.0	16.0	-2.9	26.7	29+	3.9	23	0	0	10.0	72	75	- 14	14	16	7	0	0	4.1	ESE	18.8	W	8	2	13	16	7.5	50
INTERNATIONAL FALLS	359	974.4	1015.4	23.9	10.6	17.2	-1.5	27.2	29+	5.6	30	0	0	12.2	74	168	79	66	16	10	0	0	2.9	NW	12.1*	W	24	4	13	14	6.6	

See footnotes at end of table

CLIMATOLOGICAL DATA

METRIC UNITS

State and Station	Elevation (ground)	Pressure		Temperature											Average relative humidity	Precipitation							Wind					No. of days (sunrise to sunset)			Sky cover, tenths (sunrise to sunset)	Possible sunshine
												No. of days							No. of days		Snow, Sleet				Fastest mile (1.6 kilometers)							
		Station ⊘	Sea level	Average maximum	Average minimum	Average	Departure from normal	Highest	Date	Lowest	Date	Max 32.2 °C or above	Min. 0 C or lower	Average dew point		Total	Departure from normal	Greatest in 24 hours	.25 mm. or more	With thunderstorms	Total	Maximum depth on ground	Average speed	Prevailing direction	Speed	Direction	Date	Clear, 0-3	Partly cloudy, 4-7	Cloudy, 8-10		
	M.	Mb.	Mb.	C.	C.	C.	C	C.		C.				C.	%	Mm.	Mm.	Mm			Mm	Mm.	M p s		M.p s							%
MINNESOTA																																
MINNEAPOLIS	251	982.8	1015.7	25.0	14.4	19.7	-3.1	32.2	7	7.2	26	1	0	15.0	77	130	47	37	14	7	0	0	3.9	WNW	22.4	NNE	21	6	11	14	6.4	49
ROCHESTER	395	968.8	1016.2	25.0	14.4	19.7	-2.4	31.1	7	8.3	26	0	0	15.0	77	123	29	40	14	8	0	0	4.3	WNW				6	11	14	6.7	
ST CLOUD	315	978.3	1016.0	25.0	13.9	19.4	-2.2	31.7	7	8.3	26	0	0	6.7	76	157	75	44	13	8	0	0						9	10	12	6.0	
MISSISSIPPI																																
JACKSON	93	1004.2	1016.1	35.0	23.3	29.1	1.5	37.2	31+	18.3	20	30	0	21.1	67	38	- 80	22	5	7	0	0	2.8	NW	11.2	E	13	9	18	4	4.4	86
MERIDIAN	89	1002.9	1016.4	36.1	21.1	28.6	1.1	38.3	23+	16.7	20	31	0	21.1	70	66	- 92	50	6	9	0	0	2.4	S	10.3*	N	31	6	20	5	5.1	
VICKSBURG U	71	1007.0		33.3	23.3	28.4	0.7	35.6	31+	21.1	27+	26	0			17	- 82	8	5	7	0	0	2.8		13.0	N	9	13	15	3	4.5	88
MISSOURI																																
COLUMBIA	237	986.6	1014.6	31.1	19.4	25.3	-0.7	36.1	4+	10.0	27	13	0	18.3	69	91	4	61	8	9	0	0	3.6	SSE	15.6	NW	22	4	17	10	5.8	65
KANSAS CITY	226	980.4	1014.6	30.6	20.6	25.6	-1.7	37.2	3	12.8	26	10	0	19.4	70	157	76	48	9	12	0	0	3.1	SSW	22.4	W	11	5	15	11	6.1	69
ST JOSEPH	247	980.9		30.0	18.9	24.5	-1.8	36.1	3	12.8	26	11	0			124	42	36	13	13	0	0	3.7	S	15.6■	N	21	10	13	8	4.9	
ST LOUIS	163	995.3	1015.6	29.4	18.9	24.3	-2.1	33.9	14+	10.6	27	10	0	18.3	71	139	56	51	7	7	0	0	2.8	NNW	17.0	NW	3	5	13	13	6.3	69
ST LOUIS RFC	142			30.6	21.1	25.9	-1.2	35.6	14	15.0	26	10	0			101	17	39	6		0	0										
SPRINGFIELD	386	971.0	1015.8	31.7	18.9	25.1	-0.9	34.4	14	12.2	27+	14	0	18.9	72	20	- 78	6	6	7	0	0	3.6	SSE	18.3	NW	11	7	15	9	5.8	69
MONTANA																																
BILLINGS	1087	892.7	1014.7	28.3	13.9	20.9	-2.0	34.4	9	10.6	16	4	0	8.9	51	22	- 1	9	9	8	0	0	3.9	NE	15.2	SW	17	15	8	8	4.7	77
GLASGOW	694	941.4		25.6	12.8	19.2	-2.3	30.0	12+	8.9	30	0	0	10.0	59	131	98	101	7	8	0	0						9	10	12	5.8	
GREAT FALLS	1116	890.6	1016.0	26.7	10.0	18.3	-2.7	31.1	24+	5.6	4	0	0	5.6	49	28	- 5	11	9	6	0	0	3.5	SW	14.3	NW	24+	7	14	10	5.7	64
HAVRE	787	927.5		27.2	10.6	18.7	-2.4	33.3	11	6.7	30+	1	0			42	10	15	13	6	0	0	3.2	E$	17.9	W	28	10	11	10	5.4	71
HELENA	1187	875.7	1016.2	26.1	10.6	18.4	-1.8	31.7	24	3.3	19	0	0	6.1	49	32	6	11	11	14	0	0	3.4	WNW	17.0	W	12	9	13	9	5.4	70
KALISPELL	904	913.0		27.2	7.2	17.1	-1.6	32.2	31+	0.0	4+	6	2			4	- 22	2	4	3	0	0	2.7					10	14	7	5.1	
MILES CITY	801			28.9	14.4	21.6	-2.5	36.1	1	8.9	4	6	0	11.1	58	115	81	51	10	12	0	0	3.8	NE	23.2*	NW	18	13	12	6	4.6	
MISSOULA	972	903.8	1016.8	28.3	7.8	17.8	-1.6	35.0	24	1.1	4	5	0	5.0	49	10	- 11	5	4	7	0	0	3.2	NW	14.3	N	24	11	14	6	4.8	85
NEBRASKA																																
GRAND ISLAND	561	949.7	764.0	28.3	16.1	22.2	-3.8	35.6	7	8.9	26	5	0	16.7	75	223	159	41	15	13	0	0	4.2	SSE				12	14	5	4.4	
LINCOLN U	351			30.0	18.3	24.1	-2.6	36.1	7	11.7	26	7	0			160	77	44	16	15	0	0	3.9	S$	19.2	W	3	9	12	10	5.3	79
NORFOLK	471	959.9		28.9	17.2	22.8	-2.2	36.7	7	7.8	26	7	0			108	31	28	11	14	0	0						12	12	7	4.9	
NORTH PLATTE	847	916.7	1014.0	28.9	15.6	22.2	-2.3	36.1	7	10.6	17	3	0	15.6	69	135	71	33	12	16	0	0	4.2	SSE	25.0	NW	13	9	18	4	4.7	75
OMAHA	298	975.6	1014.8	30.0	18.9	24.2	-1.6	35.0	19	12.2	26	10	0	17.8	69	192	106	49	12	9	0	0	4.2	SSE	21.9	N	19	7	17	7	5.4	71
OMAHA N OMAHA AP	403	967.6		28.3	17.8	23.0	-1.5	34.4	7	12.8	31	6	0			180	90	58	13	12	0	0						6	17	8	5.5	
SCOTTSBLUFF	1204	880.4	1014.0	29.4	14.4	21.7	-2.1	35.0	21+	11.1	24+	5	0	13.3	66	93	56	20	13	15	0	0	4.4	SE	17.4*	NW	13	13	12	6	4.4	
VALENTINE	789	925.0		28.3	14.4	21.6	-2.6	34.4	6+	10.6	8	7	0			67	8	24	8	8	0	0	4.2	N$	14.3	N	10+	14	11	6	4.4	72
NEVADA																																
ELKO	1547	846.3	1014.3	30.6	7.8	19.1	-1.8	33.9	21	3.3	4	8	0	1.1	32	12	2	9	9	7	0	0	3.1	SW	9.4*	SW	28+	13	12	6	4.0	
ELY	1907	811.7	1013.1	29.4	7.8	18.6	-1.1	32.8	21	2.2	14	4	0	- 0.6	31	16	- 1	12	6	6	0	0	3.5	S	18.8	S	12	16	11	4	3.7	84
LAS VEGAS	659	945.5	1008.9	39.4	23.3	31.3	-1.1	42.2	25	18.3	13+	31	0	0.0	15	T	- 13	T	0	1	0	0	5.0	SW	16.1*	SSW	26	27	4	0	1.3	92
RENO	1342	864.2	1015.4	32.2	6.7	19.4	-0.7	35.0	27+	3.3	7+	18	0	5.6	44	10	3	6	4	9	0	0	2.6	WNW	19.7	SW	26	21	7	3	2.7	89
WINNEMUCCA	1310	868.6		32.2	10.0	21.0	-0.7	37.8	21	2.8	14	18	0	- 0.6	26	T	- 7	T	0	0	0	0	3.6	WNW	15.2	W	31	16	10	5	3.6	90
NEW HAMPSHIRE																																
CONCORD	103	1003.1	1013.8	26.7	11.7	19.2	-1.7	32.8	8	4.4	6	1	0	11.7	67	76	- 11	52	10	6	0	0	2.5	NW	9.4	W	9+	10	10	11	5.9	57
MT WASHINGTON OBS	1909	840.7		10.0	3.3	6.6	-2.9	15.6	12	- 2.8	5	0	5		90	292	121	78	17	5	3	T	11.0	W	38.4Y	W	27	2	10	19	7.7	32
NEW JERSEY																																
ATLANTIC CITY	18	1012.9	1015.1	28.3	17.2	22.7	-1.2	32.8	8	12.8	28+	2	0	15.6	69	44	- 51	20	12	5	0	0	4.1	S	15.6*	W	23	7	13	11	5.8	64
ATLANTIC CITY U	3			25.0	19.4	22.3	-1.1	30.0	13	14.4	4	0	0			71	- 27	29	11				5.3		17.9*	W	23					
NEWARK	3	1013.2	1014.6	28.3	18.3	23.3	-1.3	35.6	8	13.9	27	3	0	13.9	60	59	- 34	32	6	3	0	0	3.8	SW	15.6*	NNW	22	4	16	11	5.9	
TRENTON U	17	1006.9		28.3	17.2	22.8	-1.7	33.3	8	12.8	27	3	0			47	- 59	17	7	4	0	0	3.6	S	10.7	NW	27+	9	10	12	6.0	59
NEW MEXICO																																
ALBUQUERQUE	1618	850.3	1013.0	32.2	17.2	24.6	-1.2	36.1	11	13.3	15+	18	0	10.0	47	31	1	18	8	9	0	0	3.5	ESE	19.2	SE	25	10	15	6	5.2	70
CLAYTON	1515	848.0		30.0	15.6	22.7	-0.9	34.4	10	12.8	26	7	0			112	53	37	13	15	0	0						4	19	8	6.0	
RATON	1944	810.0		28.3	11.7	20.1	-0.9	33.9	11	8.3	25+	4	0			46	- 14	12	13	23	0	0						3	15	13	6.8	
ROSWELL	1103	893.7		33.3	18.3	25.7	0.6	38.3	10	12.8	15	22	0	15.6	62	87	42	39	16	18	0	0	3.8		15.2	N	8	5	14	12	6.0	63
SILVER CITY	1638	838.5		30.6	16.1	23.2		35.6	11	13.3	14	8	0			114		37	16	21	0	0						4	15	12	6.5	
NEW YORK																																
ALBANY	84	1009.7	1013.7	27.8	13.3	20.6	-1.7	35.0	8	7.8	4	1	0	12.2	63	54	- 35	18	8	6	0	0	3.5	S	11.6	W	27+	6	17	8	6.1	67

See footnotes at end of table

CLIMATOLOGICAL DATA

METRIC UNITS

State and Station	Elevation (ground)	Pressure: Station Ø	Pressure: Sea level	Temperature: Average maximum	Temperature: Average minimum	Temperature: Average	Temperature: Departure from normal	Temperature: Highest	Temperature: Date	Temperature: Lowest	Temperature: Date	Temperature: No. of days: Max. 32.2 °C or above	Temperature: No. of days: Min. 0 C or lower	Temperature: Average dew point	Average relative humidity	Precipitation: Total	Precipitation: Departure from normal	Precipitation: Greatest in 24 hours	Precipitation: No. of days: .25 mm. or more	Precipitation: No. of days: With thunderstorms	Precipitation: Snow, Sleet: Total	Precipitation: Snow, Sleet: Maximum depth on ground	Wind: Average speed	Wind: Prevailing direction	Wind: Fastest mile (1.6 kilometers): Speed	Wind: Fastest mile (1.6 kilometers): Direction	Wind: Fastest mile (1.6 kilometers): Date	No. of days (sunrise to sunset): Clear, 0-3	No. of days (sunrise to sunset): Partly cloudy, 4-7	No. of days (sunrise to sunset): Cloudy, 8-10	Sky cover, tenths (sunrise to sunset)	Possible sunshine
	M.	Mb.	Mb.	°C.	C.	C.	C.	C.		C.				°C.	%	Mm.	Mm.	Mm.			Mm.	Mm.	M.p.s.		M.p.s.							%
NEW YORK																																
BINGHAMTON	485	956.0	1014.3	24.4	13.3	18.9	-1.8	32.2	8	8.3	6	1	0	12.2	69	48	- 46	12	10	8	0	0	3.7	WSW	11.6	W	27	5	13	13	6.5	72
BUFFALO	215	987.2	1015.1	26.7	13.3	20.1	-0.9	32.8	8	8.3	2	2	0	12.8	65	48	- 17	17	9	7	0	0	4.0	WSW	13.4	W	27+	8	12	11	6.1	72
NEW YORK U	40	1002.7		28.9	17.8	23.3	-1.6	35.6	8	13.9	27	7	0	13.3	58	42	- 52	21	4	2	0	0	3.4	SW$	9.4	NW	27	14	12	5	4.7	62
NEW YORK LA GUARDIA	6	1011.9	1014.3	27.8	18.9	23.2	-1.7	34.4	8	15.0	27	2	0	13.9	61	35	- 59	23	4	3	0	0	6.0	S	12.5	W	26	6	15	10	5.8	
ROCHESTER	166	995.8	1014.9	26.1	13.3	19.8	-2.2	33.9	8	9.4	6+	1	0	12.8	66	48	- 24	17	10	8	0	0	4.3	WSW	16.1	W	27	10	12	9	5.4	71
SCHENECTADY	66			27.2	13.9	20.7	-2.4	35.6	8	8.3	6	1	0			57	- 31	27	8		0	0						18	9	4	3.4	
SYRACUSE	129	992.5	1014.0	26.7	14.4	20.7	-1.7	36.1	8	10.0	6	1	0	11.7	61	70	- 9	25	11	9	0	0	5.3	WNW	19.2	W	27	13	9	9	4.8	78
NORTH CAROLINA																																
ASHEVILLE U	671	938.4		28.9	17.2	23.2	-0.4	32.2	14	11.1	27	1	0			82	- 27	41	13	8	0	0	2.5	NW$	8.9	NW	9	12	13	6	5.0	70
CAPE HATTERAS R	2	1014.5	1015.3	28.9	21.7	25.1	-0.4	33.3	15	13.9	28	1	0	21.1	78	82	- 74	37	11	6	0	0	5.0	WSW	20.6	NW	24	8	12	11	5.7	70
CHARLOTTE	224	988.0	1015.8	31.1	20.6	25.9	-0.1	36.7	16+	12.2	28	13	0	18.3	69	50	- 74	24	9	8	0	0	2.9	SW	26.4	NW	23	7	15	9	5.7	67
GREENSBORO	272	984.5	1016.0	30.0	18.3	24.1	-1.1	35.6	15	11.7	27	10	0	18.3	75	74	- 47	27	11	7	0	0	3.0	SW	17.0	NNE	15	7	15	9	5.7	59
RALEIGH	132	1001.7	1015.4	30.0	18.3	24.3	-1.2	35.0	16+	11.1	28	6	0	18.9	77	180	40	61	9	12	0	0	2.8	SSW	30.8*	SW	21	6	13	10	5.9	55
WILMINGTON	9	1013.0	1015.9	31.7	21.7	26.4	-0.2	36.1	15	17.8	1	11	0	22.2	81	149	- 46	70	13	6	0	0	3.4	SSW	11.2	SW	14	5	12	14	6.6	65
WINSTON SALEM	295	981.1	1016.1	30.0	18.9	24.3	-1.2	35.6	15	12.8	27	9	0	17.8	69	103	- 14	35	9	7	0	0	3.3	SW	15.6*	NNW	16	12	8	11	5.4	
NORTH DAKOTA																																
BISMARCK	502	956.3	1015.5	26.7	12.8	19.7	-2.7	31.1	27+	5.6	30+	0	0	13.9	71	61	5	20	13	9	0	0	3.0	WNW	16.1	NW	3	10	11	10	5.7	81
DEVILS LAKE U	448	962.4		24.4	12.8	18.6	-2.4	28.3	27+	7.8	30+	0	0			56	- 9	19	16	8	0	0	3.0	NW$	10.7	NE	3	10	12	9	5.2	69
FARGO	274	981.0	1010.9	26.1	15.0	20.4	-1.4	30.0	29+	7.2	26	0	0	15.6	74	150	76	44	15	11	0	0	3.2	S	21.0	NW	6	7	16	8	5.9	60
WILLISTON U	579	949.9		25.6	11.7	18.6	-3.2	30.6	9	5.6	4	0	0			104	57	50	12	3	0	0	4.0	SE$	20.1	NW	6	6	12	13	6.2	61
OHIO																																
AKRON	369	978.2	1016.1	27.2	15.6	21.3	-0.7	32.8	8+	10.0	27	2	0	13.9	67	97	1	43	12	4	0	0	3.2	SW	15.6	NW	21	2	18	11	6.4	
CINCINNATI OBS	232			29.4	18.3	23.9	-1.0	32.8	12+	12.2	27	2	0			179	88	42	12	7	0	0	1.9	S	9.4	W	23					76
CINCINNATI U	169	992.2		30.6	19.4	25.0	-0.6	33.9	2	13.3	27	8	0			148	54	56	12	6	0	0										
CLEVELAND	237	987.5	1015.1	26.7	15.0	20.8	-0.9	33.3	8	8.9	27	1	0	15.0	71	87	3	53	11	5	0	0	4.0	SSW	11.6Y	NW	25+	5	13	13	6.4	67
COLUMBUS	247	985.6	1015.4	27.8	16.1	21.8	-1.9	31.7	8	7.2	27	0	0	16.7	75	91	- 9	35	12	8	0	0	2.9	SSW	13.0	W	11	3	19	9	6.2	70
COLUMBUS U	221			27.8	18.3	23.2	-1.5	32.8	7	12.2	27	2	0			106	13	37	10	8	0	0										
DAYTON	304	979.4	1015.2	27.8	17.2	22.5	-1.5	32.2	6	10.6	27	1	0	16.7	74	172	83	40	11	9	0	0	3.4	NW	13.0	NW	2	3	19	9	6.2	62
MANSFIELD	395			26.7	15.6	20.9	-1.1	31.1	8+	8.9	27	0	0			89	1	35	11	8	0	0						3	18	10	6.6	
SANDUSKY U	185	993.3		26.7	17.8	22.2	-1.7	33.9	8	11.7	27	2	0			100	10	42	10	5	0	0	3.4		21.5	NW	8	6	16	7	5.4	72
TOLEDO	206	990.0	1015.1	26.7	15.0	20.9	-1.7	32.2	7	9.4	27+	1	0	15.6	74	109	43	35	10	4	0	0	3.2	ENE	13.9	W	8	4	16	11	6.3	59
YOUNGSTOWN	359	973.5	1015.8	26.7	14.4	20.3	-1.4	32.2	7	7.8	10	1	0	13.3	67	61	- 49	16	11	5	0	0	3.7	SW	10.3*	W	23	5	12	14	6.6	
OKLAHOMA																																
OKLAHOMA CITY	390	972.2	1014.7	33.9	22.2	27.9	0.7	37.8	12	18.9	26	21	0	21.1	69	43	- 17	17	8	6	0	0	5.2	SSE	17.9	SW	13	10	11	10	5.3	77
TULSA	206	990.8	1014.8	33.3	21.7	27.5	-0.4	37.8	8+	15.6	27	20	0	18.9	64	123	48	41	11	11	0	0	3.9	SSE	11.2	NW	31+	11	9	11	5.4	57
OREGON																																
ASTORIA	2	1020.3	1020.8	18.3	10.6	14.6	-1.1	23.9	21	6.1	3+	0	0	11.1	83	9	- 24	6	5	0	0	0	4.0	NNW	10.7*	SW	4+	4	10	17	7.4	
BURNS U	1265	874.7		28.3	9.4	19.1	-1.8	35.0	23+	1.1	2	7	0	1.7	33	T	- 8	T	1	2	0	0						15	8	8	4.0	
EUGENE	110	1005.4		27.8	8.9	18.3	-0.9	35.6	27+	4.4	3+	8	0			T	- 7	T	0	0	0	0	3.4		9.4*	N	2	20	5	6	3.2	
MEACHAM	1234			23.9	8.9	16.2	-1.2	31.7	24	0.6	2	0	0			T	- 13	T	0	0	0	0						14	13	4	4.2	
MEDFORD	396	969.5	1016.7	33.3	10.0	21.6	-0.6	39.4	27+	3.3	2	17	0	7.2	44	T	- 5	T	0	1	0	0	2.5	NW	8.9*	NNW	8	27	3	1	1.4	
PENDLETON	452	963.1	1015.8	31.7	13.9	22.7	-0.4	40.0	24	7.2	2	14	0	2.6	29	T	- 6	T	0	0	0	0	4.2	WNW	14.3*	W	12	20	7	4	3.1	
PORTLAND	6	1013.2	1018.8	26.1	12.2	19.1	-0.4	33.3	27+	6.7	2	5	0	10.6	61	2	- 9	2	1	0	0	0	3.9	NW	9.8	NW	2	11	13	7	4.8	68
PORTLAND U	9			25.6	13.3	19.5	-0.8	33.9	26	8.9	2	5	0			T	- 10	T	0		0	0										
ROSEBURG	154	999.7		30.0	10.0	20.1	0.2	38.3	27	3.9	3	11	0			T	- 5	T	0	0	0	0	2.8	N$	9.4	N	17	24	5	2	2.5	91
SALEM	59	1011.9	1019.1	27.8	8.3	17.9	-1.6	36.1	26	2.8	2	8	0	10.0	63	T	- 9	T	0	0	0	0	2.7	N	7.6*	NNE	6+	12	15	4	4.2	
SEXTON SUMMIT R	1169	886.9		24.4	11.1	17.8	0.2	31.7	27+	4.4	18+	0	0			0	- 8	0	0	1	0	0	5.5	N				28	2	1	1.3	
PACIFIC AREA																																
CANTON ISLAND	2	1008.5	1008.9	30.6	25.6	28.0	-0.7	31.7	24+	22.8	12	0	0	22.8	75	69	3	26	14	0	0	0	6.4	E	10.7*	E	28+	4	15	12	6.3	
ENIWETOK	4	1009.5	1010.6	30.6	25.6	28.1	0.1	31.7	31	23.3	22+	0	0	23.9	77	156	40	73	21	0	0	0	8.3									
TAGUAC GUAM R	110			30.0	22.8	26.4	0.1	31.7	22	20.6	18	0	0			380	152	69	27	6	0	0	2.4	E$	13.4	E	31					51
KOROR R	29	1004.7	1008.3	30.0	23.9	27.1	-0.1	32.2	1	22.2	22+	1	0	24.4	87	884	499	209	27	1	0	0	3.3	NW	13.0	SW	29	0	0	31	9.8	45
KWAJALEIN	2	1009.1	1010.0	30.0	24.4	27.3	0.1	31.7	2+	22.2	29+	0	0	24.4	81	271	45	55	26	0	0	0	3.9	E$	32.6	N		0	75	81		
MAJURO	3	1010.5	1010.8	30.0	25.0	27.4	0.6	31.1	12	23.3	24+	0	0	23.3	78	192	-135	39	24	1	0	0	3.9	ENE	12.1	E	27	3	6	21	8.2	61
PONAPE R	37	1003.3	1008.4	30.6	22.8	26.8	0.3	32.2	24+	21.1	22	4	0	23.9	87	345	- 67	64	27	1	0	0	1.5	E	10.3	SE	28	0	1	30	9.5	40
TRUK MOEN ISLAND	2	1007.7	1008.0	29.4	23.9	26.8	-0.2	31.1	10+	21.1	15+	0	0	23.9	85	838	525	256	27	2	0	0	3.1	SW	18.3	NW	28	0	2	29	9.5	08
WAKE ISLAND	3	1011.8	1012.2	31.1	24.4	27.7	-0.1	32.2	10+	20.6	20	2	0	23.9	80	216	99	52	25	1	0	0	4.2	ENE	11.2*	SSE	24	0	14	17	7.6	

See footnotes at end of table

CLIMATOLOGICAL DATA

METRIC UNITS

State and Station	Elevation (ground)	Pressure		Temperature											Average relative humidity	Precipitation							Wind					No. of days (sunrise to sunset)			Sky cover, tenths (sunrise to sunset)	Possible sunshine
												No. of days							No. of days		Snow, Sleet				Fastest mile (1.6 kilometers)							
		Station Ø	Sea level	Average maximum	Average minimum	Average	Departure from normal	Highest	Date	Lowest	Date	Max 32.2 °C or above	Min. 0 C or lower	Average dew point		Total	Departure from normal	Greatest in 24 hours	25 mm. or more	With thunderstorms	Total	Maximum depth on ground	Average speed	Prevailing direction	Speed	Direction	Date	Clear, 0-3	Partly cloudy, 4-7	Cloudy, 8-10		
	M.	Mb.	Mb.	C.	C.	C.	C.	C.		C.				C.	%	Mm.	Mm.	Mm.			Mm.	Mm.	M.p.s.		M.p.s.							%
PACIFIC AREA																																
YAP R	17	1005.4	1007.2	30.6	23.9	27.1	-0.3	32.2	31	22.2	28+	1	0	24.4	87	494	144	114	27	1	0	0	3.1	SW	15.6	W	28	0	1	30	9.7	74
PENNSYLVANIA																																
ALLENTOWN	115	1000.8	1015.0	28.9	15.6	21.9	-1.4	34.4	8	11.1	28+	4	0	13.9	64	41	- 82	20	5	3	0	0	3.9	SW	23.2*	WSW	23	7	14	10	5.8	
ERIE	223	989.1	1015.0	25.6	16.1	20.8	-0.9	33.9	8	10.0	10	1	0	13.3	65	61	- 33	33	10	7	0	0	5.1	WNW	11.2*	SSW	26	8	15	8	5.6	
HARRISBURG	102	1000.8	1014.6	30.0	17.8	23.8	-0.4	36.7	8	10.6	28	9	0	15.6	63	30	- 59	16	6	4	0	0	3.0	NW	13.0	SW	23	5	14	12	6.2	68
PHILADELPHIA	2	1010.1	1014.6	27.8	16.7	22.2	-2.0	32.2	13+	11.7	28+	2	0	15.0	67	58	- 47	23	7	2	0	0	3.3	WSW	15.2	NW	23	6	15	10	6.2	57
PHILADELPHIA U	11			28.9	18.9	23.7	-1.4	34.4	8	14.4	27	4	0																			
PITTSBURGH	351	985.6	1016.1	27.2	15.0	21.2	-1.1	31.7	8+	8.3	28	0	0	14.4	69	62	- 37	44	9	5	0	0	3.3	SW	10.3*	NW	25+	1	15	15	7.2	62
PITTSBURGH U	228			27.8	17.8	22.7	-1.6	32.8	8+	12.8	28+	2	0			80	- 12	54	10		0	0										51
READING U	81	1002.7	1014.2	28.9	17.8	23.3	-1.7	35.0	8	12.2	4	3	0			13	- 95	6	6	2	0	0	4.1	W$	15.6	N	22	7	13	11	5.7	62
SCRANTON	287	981.1	1014.9	28.3	14.4	21.3	-0.6	34.4	8	9.4	5	2	0	12.2	61	38	- 84	15	6	5	0	0	3.6	SW	10.7	W	9	5	16	10	6.1	57
WILLIAMSPORT	161	995.8	1014.8	28.3	14.4	21.4	-1.7	35.0	8	8.9	28	2	0	12.8	63	65	- 42	37	7	7	0	0	3.9	W	10.3*	NW	27+	5	15	11	6.3	
RHODE ISLAND																																
BLOCK ISLAND	34	1009.5		23.3	16.1	19.6	-1.3	27.2	1	10.6	6	0	0			50	- 18	19	6	4	0	0						3	12	16	7.1	
PROVIDENCE	17	1007.9	1014.0	25.6	15.0	20.3	-2.0	29.4	12	10.6	6	0	0	14.4	71	41	- 33	33	7	4	0	0	4.2	WSW	10.3*	W	12	6	13	12	6.2	56
SOUTH CAROLINA																																
CHARLESTON	12	1013.6	1015.7	31.7	22.2	27.1	0.4	35.0	24	18.9	28	17	0	21.7	77	151	- 45	70	12	11	0	0	3.3	S	15.6Y	NE	29	4	14	13	6.6	67
CHARLESTON U	3			31.1	24.4	27.7	0.2	35.0	16	21.1	5	9	0			86	-112	25	13		0	0	4.1		10.7	NE	27					
COLUMBIA	66	1002.6	1015.2	33.9	21.1	27.6	0.0	38.3	24	14.4	28	25	0	20.6	71	68	- 87	28	10	9	0	0	3.0	SW	9.4*	NNW	25+	8	10	13	6.1	53
FLORENCE	45	1009.6	1015.4	32.8	21.1	27.0	-0.1	37.8	23+	15.6	28	21	0	21.1	75	94	- 64	28	9	10	0	0	3.1	SSW	7.6*	W	16+	6	15	10	6.1	
GREENVILLE	308	978.9	1015.4	32.8	21.1	26.8	-0.1	37.8	23	16.1	27	20	0	20.0	72	91	- 35	28	7	10	0	0	2.5	E	9.8	SW	24	9	14	8	5.5	61
SPARTANBURG	244	986.3	1015.5	32.2	20.6	26.2	-0.1	37.2	23+	14.4	28	14	0	18.9	70	36	- 75	30	7	7	0	0	2.5	SW	10.3*	NW	8	9	13	9	5.4	
SOUTH DAKOTA																																
HURON	391	968.6	1015.0	26.7	15.6	21.1	-3.1	32.8	7	7.8	26	2	0	17.2	81	124	78	47	12	8	0	0	4.2	SSE	19.7	W	3	11	9	11	5.2	66
RAPID CITY	965	902.9	1015.2	27.2	14.4	20.7	-2.6	32.8	18	10.6	15	2	0	14.4	71	115	70	52	13	18	0	0	4.4	NNW	14.8	N	29	10	14	7	4.9	63
SIOUX FALLS	433	964.2	1015.1	27.2	16.1	21.5	-2.0	34.4	7	8.3	26	4	0	16.7	76	140	68	30	14	12	0	0	4.1	S	17.0*	WNW	29	12	11	8	5.0	
TENNESSEE																																
BRISTOL	459	962.8	1016.4	28.9	17.8	23.3	-0.8	32.8	15	10.6	27	2	0	17.8	74	83	- 58	38	10	4	0	0	1.8	WSW	8.0*	WNW	26	6	15	10	6.2	
CHATTANOOGA	204	988.9	1016.0	32.2	20.0	26.2	-0.1	37.8	23	13.9	28	19	0	20.6	76	124	- 6	55	13	11	0	0	2.5	S	15.2	W	23	8	10	13	5.9	67
KNOXVILLE	290	981.5	1016.5	31.7	20.0	25.7	-0.3	35.6	13	13.9	27	13	0	18.9	70	199	76	114	10	6	0	0	3.1	SW	23.7	SW	24	7	12	12	6.0	58
MEMPHIS	80	1001.4	1015.8	32.2	22.2	27.4	-0.3	35.6	13+	15.6	27	19	0	21.7	72	100	10	34	8	6	0	0	3.7	SW	17.4	NE	6	9	14	8	5.3	81
MEMPHIS U	83			31.7	23.3	27.6	-0.1	35.6	13	16.1	27	17	0			122	35	40	8		0	0										
NASHVILLE	176	995.9	1015.4	32.8	20.0	26.2	-0.6	36.1	23+	12.8	28	23	0	19.4	71	50	- 44	19	5	7	0	0	2.7	S	13.0	W	8	9	10	12	5.7	69
OAK RIDGE	276	984.5		30.6	18.9	24.5	-0.9	35.0	15	12.2	27	9	0			109	- 42	32	9	3	0	0	1.6		12.1Y		24	15	6	10	4.5	
TEXAS																																
ABILENE	536	953.9	1013.7	34.4	21.7	28.2	-0.2	38.9	14+	18.9	16	25	0	18.3	61	115	57	72	6	7	0	0	4.2	SSE	14.8	S	14	16	9	6	4.3	74
AMARILLO	1099	890.2	1013.1	32.2	19.4	25.6	-0.6	36.7	22+	15.0	15	19	0	16.7	64	191	131	67	16	16	0	0	5.4	SSW	17.0	NE	22	7	16	8	5.7	78
AUSTIN	182	993.5	1015.1	36.1	23.3	29.7	0.5	38.3	30+	21.7	13+	30	0	20.0	61	0	- 55	0	0		0	0	3.9	S	9.8	S	16+	19	9	3	3.4	87
BROWNSVILLE	5	1012.8	1015.4	33.3	24.4	28.8	-0.1	35.6	28	22.8	6+	29	0	22.8	74	T	- 43	T	0		0	0	5.9	SE	11.6	SE	28+	20	10	1	3.1	86
CORPUS CHRISTI	13	1014.5	1015.7	35.0	24.4	29.7	0.7	36.1	31+	22.8	20+	31	0	22.8	71	T	- 59	T	0		0	0	6.1	SSE	12.1	SE	14	20	10	1	3.0	97
DALLAS	147		1015.2	34.4	23.9	29.3	-0.1	37.8	12	21.1	27	27	0	20.6	62	216	167	120	4	6	0	0	5.1	S	13.4	N	15	16	5	10	4.2	68
DEL RIO U	292			37.2	25.0	31.1	1.3	39.4	28+	21.7	1	31	0			7	- 26	6	2	2	0	0										
EL PASO	1194	886.9	1011.6	33.9	21.1	27.4	-0.1	37.8	8	18.3	30+	26	0	13.9	48	46	13	12	13	16	0	0	3.4	S	18.3	S	30	11	13	7	4.9	72
FORT WORTH	166	994.4	1014.8	35.6	24.4	29.7	0.1	38.9	12	21.7	27	27	0	20.6	61	162	117	78	6	8	0	0	4.5	S	15.6*	E	27	17	4	10	4.1	
GALVESTON U	2			30.6	27.2	28.9	0.5	32.2	19+	25.6	31	2	0			T	-122	T	0		0	0	4.6		8.5	S	24					100
GALVESTON	2	1014.7	1017.0	32.2	26.7	29.3	0.7	33.3	26+	23.9	1	18	0	22.2	67	0	-124	0	0	6	0	0	3.9	S				21	10	0	2.8	
HOUSTON U	12			34.4	25.6	30.1	1.2	37.2	30	22.2	16+	30	0			39	- 91	26	4		0	0										
HOUSTON	15	1013.3	1016.1	34.4	23.3	28.9	0.1	36.7	31+	20.6	4	28	0	23.9	79	2	-107	1	2	6	0	0	3.4	S				12	18	1	4.1	84
LAREDO	152	998.0	1013.2	39.4	25.0	32.2	1.3	41.1	28	23.9	11+	31	0	18.3	51	0	- 35	0	0		0	0	6.9	SE	11.2*	SE	30	24	7	0	1.6	
LUBBOCK	988	904.9	1014.3	32.8	18.9	25.9	-0.4	36.7	14+	16.1	18	20	0	17.2	64	123	72	39	15	10	0	0	5.3	S	12.5*	SSW	13+	8	16	7	5.4	
MIDLAND	870	915.6	1011.5	34.4	21.1	27.9	-0.4	38.9	15	17.8	17	27	0	16.1	54	54	6	26	6	7	0	0	4.7	SSE	15.6*	W	10	8	16	7	5.3	
PORT ARTHUR	5	1014.7	1016.2	35.0	22.8	28.9	1.2	37.2	31+	20.6	5+	31	0	23.9	78	38	-115	19	4	7	0	0	3.0	SSW	15.2	N	18	10	20	1	4.3	85
SAN ANGELO	580	947.3	1011.3	37.2	23.3	30.2	0.9	40.6	14+	20.6	18+	29	0	16.1	49	50	14	49	3	5	0	0	3.8	SSE	15.6*	N	15	17	8	6	3.6	
SAN ANTONIO	241	990.1	1014.7	37.2	23.9	30.5	1.6	39.4	28	22.8	29+	31	0	20.0	59	3	- 50	3	1		0	0	4.9	SSE	11.2	SE	16	21	9	1	2.7	85
VICTORIA	32	1011.1		35.0	23.3	29.2	0.7	37.2	31	21.7	5	30	0			30	- 62	30	1	1	0	0	4.1		13.9*		1	21	9	1	2.9	
WACO	152	994.2	1015.0	36.1	23.9	30.0	0.4	38.9	30	21.7	6	30	0	20.6	60	2	- 49	2	1		0	0	6.0	S	12.1	S	14	20	8	3	2.9	
WICHITA FALLS	303	977.5	1013.6	35.0	22.8	28.9	-0.6	40.0	12+	20.0	16	26	0	20.0	63	97	47	76	5	9	0	0	4.1	S	11.6*	WSW	14	12	8	11	5.1	

See footnotes at end of table

CLIMATOLOGICAL DATA

METRIC UNITS

State and Station	Elevation (ground)	Pressure		Temperature											Average relative humidity	Precipitation							Wind					No. of days (sunrise to sunset)			Sky cover, tenths (sunrise to sunset)	Possible sunshine
												No. of days							No. of days		Snow, Sleet				Fastest mile (1.6 kilometers)							
		Station Ø	Sea level	Average maximum	Average minimum	Average	Departure from normal	Highest	Date	Lowest	Date	Max 32.2 °C or above	Min. 0 °C or lower	Average dew point		Total	Departure from normal	Greatest in 24 hours	.25 mm. or more	With thunderstorms	Total	Maximum depth on ground	Average speed	Prevailing direction	Speed	Direction	Date	Clear, 0-3	Partly cloudy, 4-7	Cloudy, 8-10		
	M.	Mb.	Mb.	C.	C.	C.	C.	C.		C.				C.	%	Mm.	Mm.	Mm.			Mm.	Mm.	M.p.s.		M.p.s.							%
UTAH																																
MILFORD	1533	845.6	1012.2	32.8	10.0	21.6	-1.6	37.2	21	5.6	14	23	0			9	-9	7	5	8	0	0						18	10	3	2.5	
SALT LAKE CITY	1286	868.3	1012.8	33.3	15.6	24.4	-0.3	37.2	21+	10.0	13	22	0	5.6	34	64	49	60	4	8	0	0	4.1	S	16.5	W	13	19	5	7	3.3	86
WENDOVER	1291	870.6		32.2	18.9	25.3	-1.0	37.2	5	15.0	13	15	0			7	-1	3	4	8	0	0						21	7	3	2.7	
VERMONT																																
BURLINGTON	101	998.6	1013.2	25.0	11.1	17.8	-3.6	33.3	8	3.9	6	1	0	12.2	72	151	53	44	16	7	0	0	2.9	S	11.6	NW	13	6	11	14	6.4	61
VIRGINIA																																
LYNCHBURG	289	990.5		27.8	17.2	22.6	-2.1	31.7	8	11.7	28+	0	0			131	24	28	15	9	0	0	3.0		11.6	N	16+	9	10	12	5.9	56
NORFOLK	8	1014.0	1015.4	28.3	19.4	24.0	-2.0	32.8	14	13.9	28	3	0	19.4	79	230	80	91	10	5	0	0	4.1	SW	11.6	NE	12	6	15	10	5.9	62
RICHMOND	49	1009.2	1015.3	29.4	17.8	23.8	-1.8	33.9	12+	11.1	28+	9	0	18.9	77	144	1	56	9	4	0	0	3.0	SSW	8.5	SW	23+	7	12	12	6.3	64
ROANOKE	358	974.5	1016.2	29.4	17.8	23.4	-1.3	33.3	20+	10.0	28	9	0	16.7	69	136	28	38	10	4	0	0	3.7	WSW	15.6*	WSW	23	8	12	11	5.9	
WASHINGTON																																
OLYMPIA	58	1012.5	1019.7	25.6	7.8	16.6	-1.1	34.4	23	1.7	3	6	0	10.0	67	4	-16	2	2	0	0	0	2.7	SW	8.0*	WNW	17+	11	9	11	5.3	
SEATTLE TACOMA	122	1005.4	1019.4	23.3	11.7	17.5	-0.2	31.1	28+	8.9	19+	0	0	10.6	68	18	-3	10	6	1	0	0	3.7	SW	10.3*	SSW	1	12	5	14	5.2	
SEATTLE	4		1019.3											10.6	64	0		0					2.8	NNW								
SEATTLE U	4			23.9	13.3	18.4	-0.3	32.2	28+	10.0	2	2	0			28	12	17	5		0	0			11.6	SW	4					65
SPOKANE	718	947.2	1015.4	28.3	11.7	20.1	-0.7	36.1	25+	3.9	2	11	0	4.4	39	7	-2	5	4	4	0	0	3.8	SW	16.1	SW	17	16	13	2	4.0	84
STAMPEDE PASS R	1206	883.5		17.8	7.8	12.8	-0.7	27.2	30+	1.1	2+	0	0			45	8	16	8	0	53	25						13	7	11	5.1	
TATOOSH ISLAND	31	1017.6	1020.5	14.4	10.0	12.2	-0.8	20.0	22	8.9	31+	0	0	10.6	91	23	-37	11	6	0	0	0	5.5	S	11.6	S	4	7	8	16	6.9	40
WALLA WALLA U	289	979.0		31.1	16.7	23.6	-0.8	39.4	24	8.9	2	13	0			T	-5	T	0	0	0	0	2.2	W$	11.6	W	1	18	9	4	3.5	89
YAKIMA	323	976.6	1015.1	30.6	11.1	20.9	-0.7	38.3	25	2.2	2	14	0	6.1	41	T	-3	T	1	0	0	0	3.4	WNW	12.5*	WNW	1	16	12	3	3.3	
WEST INDIES																																
SAN JUAN P.R. U	14			29.4	24.4	27.2	0.4	31.1	17+	22.2	20	0	0			110	-43	23	15	3												
SAN JUAN P.R.	5	1014.5	1017.4	31.1	23.9	27.6	0.7	33.3	11+	22.2	31+	6	0	22.8	78	164	5	37	22	5	0	0	3.8	ENE	11.2	E	19+	2	22	7	5.8	62
SWAN ISLAND	9	1012.8		31.1	25.6	28.3	0.3	32.2	26+	22.2	27	2	0			112	5	48	15	10	0	0						9	13	9	5.7	
WEST VIRGINIA																																
CHARLESTON	286	980.5	1015.5	27.8	17.8	22.8	-0.8	31.1	14	10.0	28+	0	0	18.9	81	204	60	50	18	12	0	0	1.9	SW	14.3*	W	14	3	13	15	7.1	
ELKINS	600	948.0	1016.7	25.6	13.3	19.3		30.0	8+	5.6	28	0	0	15.0	78	80		26	13	7	0	0	2.1	WNW	11.6	NNW	23	2	10	19	7.5	
HUNTINGTON U	252	985.8	1015.8	27.2	17.2	22.2	-2.9	31.1	14	8.3	27	0	0	18.3	81	218	92	108	15	12	0	0	2.2	SSW	8.0*	WSW	14	3	13	15	6.8	
PARKERSBURG U	187			28.3	17.2	22.8	-1.6	32.2	7	11.1	27	1	0			123	19	40	13	7	0	0	2.4		13.4	SW	8					45
WISCONSIN																																
GREEN BAY	208	992.9	1015.3	25.0	13.3	19.2	-1.7	31.1	7	7.8	31	0	0	14.4	76	69		23	10	7	0	0	2.7	NE	13.0	N	24+	6	11	14	6.5	55
LA CROSSE	199	991.0	1016.6	25.6	15.6	20.3	-2.9	32.2	7	9.4	26	1	0	10.6	64	82	-13	18	12	6	0	0	3.5	SE	19.7*	N	24	4	12	15	6.9	
MADISON	262	980.6	1015.4	25.6	13.9	19.6	-2.1	31.1	11+	7.2	31	0	0	15.6	77	112	21	55	16	9	0	0	3.4	WNW	13.9	NW	25	6	11	14	6.6	43
MILWAUKEE	205	991.1	1016.0	23.9	14.4	19.3	-1.1	30.0	10	10.0	26	0	0	15.0	78	95	20	41	12	7	0	0	4.1	NNE	17.4	W	22	7	11	13	5.9	54
WYOMING																																
CASPER	1621	839.8	1014.0	27.6	11.7	19.9	-2.2	34.4	6	6.7	15	5	0	6.1	48	31	6	10	9	15	0	0	4.0	WSW	20.6*	W	1	15	8	8	4.6	
CHEYENNE	1867	816.8	1015.3	26.1	11.1	18.7	-1.9	31.1	21	6.7	24	0	0	10.0	64	102	56	20	20	22	0	0	4.6	WNW	16.1	NE	27	10	13	8	4.8	62
LANDER	1696	837.5	1014.0	28.3	11.7	20.2	-1.3	33.9	6	7.2	15+	6	0	5.0	43	44	24	13	8	12	0	0	3.3	WSW	19.2	S	17	11	13	7	4.5	75
SHERIDAN	1202	887.2	1011.4	27.2	11.1	19.2	-2.7	32.2	9+	7.2	30	2	0	7.8	53	40	10	17	9	12	0	0	2.2	NW	21.0	NW	9	13	11	7	4.8	71

Data from airport unless otherwise specified. U indicates Urban, R indicates Rural, sites.

* Value entered in column headed 'Fastest Mile' is the highest observed wind speed. This station is not equipped with an automatic recording wind instrument.

A Maximum hourly average.

+ And also on an earlier date or dates.

Ø Station pressures apply to elevations shown in the "Elevations - Station Pressure" table of the annual issue of this publication.

B Number of days maximum 21.1 C. or above for Alaskan Stations.

$ Wind direction to 8 compass points only.

Y Peak Gust.

Data in this table is obtained by conversion from data in the English Units table.

HEATING DEGREE DAYS

(Base 65°F.)

JULY 1962

State and station	Current season		Normals
	This month	Period July through this month	July through this month
ALABAMA			
Birmingham	0	0	0
Huntsville	0	0	0
Mobile	0	0	0
Montgomery	0	0	0
ALASKA			
Anchorage	197	197	245
Annette	169	169	257
Barrow	758	758	803
Barter Island	776	776	735
Bethel	186	186	319
Cold Bay	418	418	474
Cordova	353	353	366
Fairbanks	86	86	171
Juneau	250	250	301
King Salmon	236	236	313
Kotzebue	294	294	381
McGrath	99	99	208
Nome	374	374	481
St. Paul	561	561	605
Shemya	502	502	577
Yakutat	357	357	338
ARIZONA			
Flagstaff	32	32	37
Phoenix (U)	0	0	
Phoenix	0	0	0
Prescott	0	0	0
Tucson	0	0	0
Winslow	0	0	0
Yuma	0	0	0
ARKANSAS			
Ft. Smith	0	0	0
Little Rock	0	0	0
Texarkana	0	0	0
CALIFORNIA			
Bakersfield	0	0	0
Bishop	2	2	0
Blue Canyon	17	17	28
Burbank	0	0	0
Eureka (U)	339	339	270
Fresno	0	0	0
Long Beach	0	0	0
Los Angeles (U)	0	0	0
Los Angeles	2	2	28
Mt. Shasta (R)	18	18	25
Oakland	94	94	53
Point Arguello (R)	254	254	202
Red Bluff	0	0	0
Sacramento (U)	0	0	0
Sacramento	0	0	0
Sandberg (R)	3	3	0
San Diego	0	0	9
San Francisco (U)	270	270	192
San Francisco	143	143	81
San Jose (U)	5	5	
Santa Maria	136	136	99
COLORADO			
Alamosa	67	67	65
Colorado Springs	6	6	16
Denver	0	0	0
Grand Junction	0	0	0
Pueblo	0	0	0
CONNECTICUT			
Bridgeport	2	2	0
Hartford	3	3	0
Middletown			
New Haven	4	4	0
DELAWARE			
Wilmington	0	0	0
DIST. OF COLUMBIA			
Washington (U)	0	0	
Washington	0	0	0
FLORIDA			
Apalachicola (U)	0	0	0
Daytona Beach	0	0	0
Fort Myers	0	0	0
Jacksonville	0	0	0
Key West	0	0	0
Lakeland (U)	0	0	0
Miami	0	0	0
Miami Beach	0	0	0
Orlando	0	0	0
Pensacola (U)	0	0	0
Tallahassee	0	0	0
Tampa	0	0	0
West Palm Beach	0	0	0
GEORGIA			
Athens	0	0	0
Atlanta	0	0	0
Augusta	0	0	0
Columbus	0	0	0
Macon	0	0	0
Rome	0	0	0
Savannah	0	0	0
Thomasville (U)	0	0	0
IDAHO			
Boise	8	8	0
Idaho Falls 46W (R)	34	34	16
IDAHO (Cont'd.)			
Idaho Falls 42NW(R)	27	27	16
Lewiston	22	22	0
Pocatello	12	12	0
ILLINOIS			
Cairo (U)	0	0	0
Chicago (Midway)	1	1	0
Chicago (O'Hare)	6	6	
Moline	8	8	0
Peoria	4	4	0
Rockford	14	14	6
Springfield	2	2	0
INDIANA			
Evansville	0	0	0
Ft. Wayne	2	2	0
Indianapolis	3	3	0
South Bend	10	10	0
IOWA			
Burlington	2	2	0
Des Moines	0	0	0
Dubuque	23	23	12
Sioux City	6	6	0
Waterloo	16	16	12
KANSAS			
Concordia (U)	0	0	0
Dodge City	0	0	0
Goodland	0	0	0
Topeka	0	0	0
Wichita	0	0	0
KENTUCKY			
Lexington	0	0	0
Louisville	0	0	0
LOUISIANA			
Alexandria	0	0	
Baton Rouge	0	0	0
Lake Charles	0	0	0
New Orleans (Audubon Park)	0	0	
New Orleans	0	0	0
Shreveport	0	0	0
MAINE			
Caribou	151	151	78
Greenville (U)			
Portland	68	68	12
MARYLAND			
Baltimore (U)	0	0	0
Baltimore	0	0	0
Frederick	2	2	0
MASSACHUSETTS			
Blue Hill Obs. (R)	29	29	0
Boston	6	6	0
Nantucket	28	28	16
Pittsfield	64	64	25
Worcester	35	35	6
MICHIGAN			
Alpena	72	72	53
Detroit (City AP)	1	1	0
Detroit (M. Wayne Co.)	8	8	0
Detroit (Willow Run)	1	1	0
Escanaba (U)	52	52	59
Flint	22	22	6
Grand Rapids	10	10	9
Lansing	15	15	6
Marquette (U)	96	96	59
Muskegon	7	7	22
S. Ste. Marie	89	89	109
MINNESOTA			
Duluth	132	132	65
Internat. Falls	76	76	71
Minneapolis	27	27	16
Rochester	31	31	25
St. Cloud	29	29	28
MISSISSIPPI			
Jackson	0	0	0
Meridian	0	0	0
Vicksburg (U)	0	0	0
MISSOURI			
Columbia	0	0	0
Kansas City	0	0	0
St. Joseph	0	0	0
St. Louis (RFC)	0	0	0
St. Louis	0	0	0
Springfield	0	0	0
MONTANA			
Billings	4	4	12
Butte			
Glasgow	23	23	31
Great Falls	55	55	22
Havre	41	41	28
Helena	58	58	31
Kalispell	119	119	50
Miles City	10	10	6
Missoula	83	83	34
NEBRASKA			
Grand Island	10	10	0
Lincoln (U)	0	0	0
Norfolk	5	5	9
North Platte	3	3	0
Omaha	0	0	0
Omaha N. Omaha AP	0	0	9
Scottsbluff	3	3	0
Valentine	9	9	9
NEVADA			
Elko	23	23	9
Ely	29	29	28
Las Vegas	0	0	0
Reno	7	7	41
Tonopah	3	3	
Winnemucca	6	6	0
NEW HAMPSHIRE			
Concord	31	31	6
Mt. Washington Obs. (R)	648	648	493
NEW JERSEY			
Atlantic City	0	0	0
Atlantic City (U)	0	0	
Newark	0	0	0
Trenton (U)	0	0	0
NEW MEXICO			
Albuquerque	0	0	0
Clayton	0	0	0
Raton	6	6	9
Roswell	0	0	0
Silver City	0	0	
NEW YORK			
Albany	6	6	0
Binghamton	21	21	12
Buffalo	9	9	19
New York (U)	1	1	0
New York (LaGuardia)	0	0	0
Rochester	10	10	9
Schenectady	3	3	
Syracuse	6	6	6
NORTH CAROLINA			
Asheville (U)	0	0	0
Cape Hatteras (R)	0	0	0
Charlotte	0	0	0
Greensboro	0	0	0
Raleigh	0	0	0
Wilmington	0	0	0
Winston-Salem	0	0	0
NORTH DAKOTA			
Bismarck	22	22	25
Devils Lake (U)	33	33	40
Fargo	11	11	28
Grand Forks CAA	23	23	
Pembina	19	19	
Williston (U)	45	45	31
OHIO			
Akron	11	11	6
Cincinnati (U)	0	0	
Cincinnati	2	2	0
Cincinnati Obs.	0	0	0
Cleveland	10	10	6
Columbus	8	8	0
Columbus (U)	2	2	
Dayton	5	5	0
Mansfield	9	9	9
Sandusky (U)	0	0	0
Toledo	1	1	0
Youngstown	18	18	0
OKLAHOMA			
Oklahoma City	0	0	0
Tulsa	0	0	0
OREGON			
Astoria	203	203	158
Burns (U)	69	69	12
Eugene	71	71	34
Meacham	184	184	84
Medford	13	13	0
Pendleton	15	15	0
Portland (U)	47	47	12
Portland	49	49	25
Roseburg	24	24	22
Salem	91	91	28
Sexton Summit (R)	125	125	81
PENNSYLVANIA			
Allentown	1	1	0
Erie	7	7	0
Harrisburg	0	0	0
Philadelphia (U)	0	0	
Philadelphia	0	0	0
Pittsburgh (U)	0	0	0
Pittsburgh	11	11	0
Reading (U)	0	0	0
Scranton	3	3	0
Williamsport	1	1	0
RHODE ISLAND			
Block Island	11	11	0
RHODE ISLAND (Cont'd.)			
Providence	12	12	0
SOUTH CAROLINA			
Charleston (U)	0	0	0
Charleston	0	0	0
Columbia	0	0	0
Florence	0	0	0
Greenville	0	0	0
Spartanburg	0	0	0
SOUTH DAKOTA			
Huron	20	20	12
Pierre	9	9	
Rapid City	4	4	22
Sioux Falls	18	18	19
TENNESSEE			
Bristol	1	1	0
Chattanooga	0	0	0
Knoxville	0	0	0
Memphis (U)	0	0	0
Memphis	0	0	0
Nashville	0	0	0
Oak Ridge	0	0	0
TEXAS			
Abilene	0	0	0
Amarillo	0	0	0
Austin	0	0	0
Brownsville	0	0	0
Corpus Christi	0	0	0
Dallas	0	0	0
Del Rio (U)	0	0	
El Paso	0	0	0
Ft. Worth	0	0	0
Galveston (U)	0	0	0
Galveston	0	0	0
Houston (U)	0	0	0
Houston	0	0	0
Laredo	0	0	0
Lubbock	0	0	0
Midland	0	0	0
Port Arthur	0	0	0
San Angelo	0	0	0
San Antonio	0	0	0
Victoria	0	0	0
Waco	0	0	0
Wichita Falls	0	0	0
UTAH			
Milford	4	4	0
Salt Lake City	3	3	0
Wendover	0	0	0
VERMONT			
Burlington	71	71	16
VIRGINIA			
Lynchburg	1	1	0
Norfolk	0	0	0
Richmond	0	0	0
Roanoke	0	0	0
WASHINGTON			
Olympia	145	145	68
Seattle (U)	67	67	50
Seattle	61	61	34
Seattle-Tacoma	95	95	74
Spokane	60	60	19
Stampede Pass (R)	330	330	273
Tatoosh Island (R)	334	334	295
Walla Walla	13	13	
Walla Walla (U)	10	10	0
Yakima	52	52	0
WEST VIRGINIA			
Charleston	3	3	0
Huntington (U)	7	7	0
Parkersburg (U)	0	0	0
WISCONSIN			
Green Bay	24	24	31
La Crosse	18	18	12
Madison	23	23	25
Milwaukee	24	24	43
WYOMING			
Casper	19	19	6
Cheyenne	40	40	28
Lander	19	19	6
Sheridan	26	26	25

Data from airport unless otherwise specified.
U indicates Urban, R indicates Rural, sites.

STORM SUMMARY

STATE	TORNADOES					HAILSTORMS				WINDSTORMS				LIGHTNING				‡ HEAVY SNOWSTORMS AND BLIZZARDS				# ICE STORMS				∅ ALL OTHER			
	NUMBER	DAYS	DEATHS	INJURIES	†DAMAGE	DEATHS	INJURIES	†DAMAGE PROPERTY	†DAMAGE CROPS	DEATHS	INJURIES	†DAMAGE PROPERTY	†DAMAGE CROPS	DEATHS	INJURIES	†DAMAGE PROPERTY	†DAMAGE CROPS	DEATHS	INJURIES	†DAMAGE PROPERTY	†DAMAGE CROPS	DEATHS	INJURIES	†DAMAGE PROPERTY	†DAMAGE CROPS	DEATHS	INJURIES	†DAMAGE PROPERTY	†DAMAGE CROPS
Alabama										0	0	5	0	0	3	5	0												
Alaska *																													
Arizona	1	1	0	0	2					0	11	5	0																
Arkansas										0	4	4	0	2	0	0	0												
California														0	0	4	0												
Colorado	15	10	0	0	3	0	0	5	7	0	0	5	5	2	4	4	0									0	2	4	5
Connecticut									5			5			1	4												4	
Delaware	1	1	0	0	4					0	4+	5	2																
Florida	2	2	0	0	4					2	4	3	0	6	17	0	0												
Georgia	1	1	0	0	4	0	0	0	4	0	1	5	0													0	0	4	0
Hawaii *																													
Idaho	1	1	0	0		0	0		5	0	0	4		1	0														
Illinois	1	1	0	0	4	0	0	4	6	0	0	4	4	1	3	5	0									0	5	?	?
Indiana	2	1	0	0	4					0	0	3	0																
Iowa	2	1	0	0	0	0	0	7	6	0	28	6	6	1	3	5	0									0	0	6	5
Kansas	5	5							4			4		1	7	3													
Kentucky	1	1	0	0	4	0	0	0	4	0	0	4	0	1	0	3	0									1	0	°6	C
Louisiana										0	0	4	0																
Maine	1	1	0	0	3	0	0	0	4					0	8	5	0									0	0	4	0
Maryland						0	0	0	4	0	0	5	4	0	5	5	3									2	11+	4	4
Massachusetts	1	1	0	3	4	0	0	0	4	0	0	5	0	0	4	5	0									0	0	4	3
Michigan						0	0	3	4	3	2	5	4	1	3	5													
Minnesota	1	1	0	0	0	0	0	5	6	1	0	5	6	0	2	0	0									0	0	5	0
Mississippi *																													
Missouri	4	4	0	0	4	0	0	0	4	0	0	4	4	0	0	4	0												
Montana	2	2	0	0	2	0	0	5	6	0	0	4	4																
Nebraska	1	1	0	0	5	0	0	6	6	0	0	5	5	1	0	5	0												
Nevada	1	1	0	0	4																								
New Hampshire	2	1	0	0	4	0	0	0	3					0	0	4	0									0	0	3	0
New Jersey								4	C			5	C																
New Mexico	2	2	0	0	3					0	0	4	0	0	2	0	0									0	0	0	5
New York									5			5		3	6	5												4	
North Carolina						0	0	4	6	0	3	6	5	0	0	6	0									0	0	5	7
North Dakota	3	2	0	0	4	0	0	4	6	0	0	5	2	0	0	2	0									0	0	2	3
Ohio	1	1	0	0	3	0	0	3	5	0	1	4	0																
Oklahoma	6	5	0	0	5	0	0	0	4	0	1	0	4	0	0	5	0									0	0	°4	C
Oregon N																													
Pennsylvania						0	0	5	6	0	0	4	0	0	0	4	0												
Puerto Rico *																													
Rhode Island																												4	
South Carolina	3	2	0	0	3	0	0	3	5	0	0	5	3	1	2	0	0												
South Dakota	4	3	0	?	4	0	0	4	6	2	?	?	?	0	?	?	?									0	?	5	?
Tennessee						0	0	0	5	1	4	5	3	0	4	4	0									0	0	6	4
Texas	11	7	0	5	?	0	0	0	6	0	0	5	0	2	7	5	0									0	1	5	0
Utah	1	1	0	0	0	0	0	2	3					0	2	4	0									0	0	0	3
Vermont	2	1	0	0	4	0	0	0	3					0	2	5	0									0	0	5	3
U.S. Virgin Is. *																													
Virginia						0	0	?	?	0	0	?	?	0	0	4	4												
Washington						0	0	0	4																				
West Virginia						0	0	6	6	0	0	4	4	1	0	2	0									0	0	4	3
Wisconsin	2	2	0	0	4	0	0	3	5	0	0	4	5	2	2	0	0												
Wyoming	3	3	0	0	3	0	0	6	6	0	0	3	0	0	8	0	0												

* No occurrence of storms or unusual weather phenomena.
‡ Includes heavy sleet storm.
# Freezing drizzle and freezing rain, commonly known as glaze.
∅ For breakdown of "All Others", and for detailed listing of other storms, see the U. S. Weather Bureau monthly publication STORM DATA.
N No report received by printing deadline.
° Includes Crop Damage
C Crop Damage

† Storm damages are placed in categories varying from 1 to 9 as follows:

1	Less than $50
2	$50 to $500
3	$500 to $5,000
4	$5,000 to $50,000
5	$50,000 to $500,000
6	$500,000 to $5,000,000
7	$5,000,000 to $50,000,000
8	$50,000,000 to $500,000,000
9	$500,000,000 to $5,000,000,000

GENERAL SUMMARY OF RIVER AND FLOOD CONDITIONS

JULY 1962

Severe thunderstorms caused numerous flash floods along small creeks in the Missouri and Ohio Basins during July. One of the most destructive of these occurred along Rapid Creek and its tributaries west of Rapid City, S. Dak. More than 1,200 persons were forced to leave their homes. Another severe flash flood occurred on Banklick Creek in the Sanfordville, Ky., area where one woman was drowned when her home was washed downstream. Severe flooding occurred on Indian Creek in the upper Republican Basin in Nebraska. Flooding along main streams was mostly light.

HUDSON BAY DRAINAGE

Red River of the North Basin.--Heavy rains during the first few days of July over much of the upper basin started the Red River of the North on a rise for the fourth consecutive month. Flood stage was reached at and above Grand Forks, N. Dak. Campbell, Minn., reported 2.61 inches during the first 3 days of the month, Bald Hill 1.65 inches, and McLeod 4.23 inches. These were followed by more widespread rainfall amounts of 1 to 2 inches on the 6th and 7th. The Red River went above flood stage at Wahpeton twice during the month. At Moorhead, Minn., the river went above flood stage on the 4th and remained high until August 3, with a second crest on the 25th, after upper valley rains on the 19th. Farmers in the immediate valley suffered losses because of continued high water, but more loss was occasioned by the excessive rainfall that caused the rises.

ATLANTIC SLOPE DRAINAGE

Torrential rains, totaling 4 to more than 6 inches on July 3 and 4, caused 4- to 8-foot overflow along the Neuse River in eastern North Carolina. Flooding continued from 3 to 10 days. No damage was reported. Rainfall along the Cape Fear River during that period ranged from 1 to 3 inches with the heaviest along the lower basins. Flooding was restricted to the lower reaches and only minor flooding resulted. One to 2 inches of rainfall was recorded over the Roanoke, Dan, and Tar River Basins. No flooding resulted at any of the gaging points, although sharp rises and some flash flooding did occur along the lower reaches where the rainfall was the heaviest.

MISSISSIPPI SYSTEM

Upper Mississippi Basin.--Three to 4 inches of rainfall over the headwaters of the Minnesota River from the 2d to the 4th followed by 2- to 3-inch rains again on the 5th to the 7th resulted in bankfull stages in the reach from Le Sueur to Savage, Minn. The crest at Mankato, Minn., was 4.5 feet below flood stage. Additional heavy rains on the 18th and 19th caused light flooding at Montevideo, Minn., from the 23d to August 1. The rise downstream through Mankato was minor.

The July mean stage for Mankato was 11.5 feet, 5.8 feet above the July longterm mean. This was the second highest July longterm mean stage of record. The Mississippi River from St. Paul downstream through Guttenberg had mean stages 1 to 3 feet higher than in July 1961. Streamflow for July was the highest for July since 1957.

The flooding on the Sangamon River at Monticello, Ill., between the 14th and 26th was due to heavy rains of 4 to 8 inches during the first week of July followed by additional rains during the second week. Only a small amount of damage resulted to farmland immediately adjacent to the river.

Missouri Basin.--A very destructive flash flood occurred along Rapid Creek and its tributaries, at and immediately west of Rapid City, S. Dak., on the evening of the 13th. The flash flood resulted from severe thunderstorms and torrential rains over the large hills and canyons west of Rapid City. Two to 3 inches of rain fell in about 3 hours. Locally heavier amounts may have fallen in some of the hills area. Small tributary creeks in Cleghorn Canyon, South Canyon, Dark Canyon, and the Canyon Lake area, which are dry much of the year, suddenly became raging torrents and caused Rapid Creek to flood severely. Available reports indicate that flood damages were about $1 million. Six bridges were washed out and several others had to be closed for repairs. One railroad bridge was damaged. Twelve hundred to 1500 people were forced to leave their homes. Residential damage was heavy.

The flooding on the Little Sioux River at Spencer, Iowa, from the 5th to the 8th, was due to locally heavy rains. Salt Creek near Roca, Nebr., reached bankfull stage for a short period due to locally heavy rains during the early morning hours of the 20th. Damage from the flooding was minor.

A slow moving squall line during the night of the 19th produced heavy rainfall in southeastern Nebraska, causing brief flooding on the Nemaha River at Falls City, Nebr., on the 20th. The Platte River reached bankfull stage at Rosendale, Mo., on the 22d. There was no damage of any consequence.

Severe flooding occurred on Indian Creek in the upper Republican River Basin in Nebraska due to heavy rains during the evening of the 31st. Eight to 10 inches of rain fell in the area north of Max, Nebr., causing heavier flooding than in 1935. The flood waters put the Republican River out of banks briefly above Swanson Reservoir during the night. Lost Creek on the South Fork of the Solomon River below Webster Dam was reported the highest in the memory of local residents on the 22d. Relatively minor overflows were centered in the upper Republican in Nebraska and in the upper Solomon River Basins in Kansas. Flooding was generally the result of spotty heavy downpours. Except for heavy, local losses on Indian Creek, damages were comparatively light.

Ohio Basin.--An unusual number of severe thunderstorms occurred in the Ohio Basin during the month, with flooding resulting on some of the smaller streams in Ohio, West Virginia, southeastern Indiana, and northern Kentucky.

The first severe thunderstorm deposited 1 inch of rainfall in downtown Huntington, W. Va., in a 15-minute period on July 1, flooding streets, basements, and other low places. Another thunderstorm hit the Huntington area on the 3d with 1.54 inches of rainfall reported in 45 minutes. Ten small bridges were washed away or damaged beyond repair. Seven houses were flooded at South Point, Ohio, with some flooding on Lick and Charley Creeks and along Sandusky Road in Ohio. A severe thunderstorm occurred approximately 15 miles southeast of Huntington on the 14th, causing some flood damage, but mostly wind damage along Beech Fork Creek.

Very heavy thunderstorms occurred in the Greater Cincinnati, Ohio, area during the night of the 14th, causing flash floods on small creeks in southeastern Indiana and northern Kentucky. Flash flooding was severe on Banklick Creek in the Sanfordville area in northern Kentucky. Banklick Creek started rising on the 14th with some overflow. The major rise (a wall of water), resulting in heavy damage to the 3- to 4-mile stretch below the confluence of Bullock Pen and Horse Branch Creek, occurred early on Sunday, July 15, due to the heavy rain centered west of Independence, Ky. One woman was drowned when her home was washed downstream and completely demolished. A trailer park at Sanfordtown in Kenton County, Kentucky, was washed downstream, carrying about 30 trailers away. A number of automobiles were scattered over the bottoms in the Chisel Bridge area and Sanfordtown. Major to minor damage occurred to many homes.

A severe thunderstorm on the 23d in or near Ironton, Ohio, caused some flood damage, but mostly wind damage. A thunderstorm deposited large amounts of rain over the headwaters of Beechfork Creek about 15 miles southeast of Huntington on the 30th. This was a few miles east and upstream from the area damaged on the 14th. Most of the narrow valley along Raccoon Creek and about half of the valley along Bowen Creek were flooded. The amount of damage was light.

General heavy rain of up to 8 inches occurred from the 13th to the 15th in Indiana from the Vermillion River southeastward across the central Wabash and White River Basins. The rainfall average decreased to less than 1 inch over the lower and upper Wabash and White Rivers. These rains caused lowland flooding along the central Wabash, most of the White River, the upper reaches of the East Fork of the White, and the Muscatatuck River from the 15th to the 20th. Additional rain of 1 to 3 inches over the upper Wabash on the 20th and 21st caused a second period of flooding of low croplands on the upper and central Wabash. Considerable damage occurred to crops in lowlands and to houses due to flooded basements.

WEST GULF OF MEXICO DRAINAGE

Flooding began over portions of the Upper Trinity in Texas on the 27th and continued into August in the lower reaches. Flash flooding began in the early morning hours of the 27th on smaller streams, from Fort Worth eastward. The only flooding of residential areas by streams was along Fossil Creek in Richland Hills. There was some flooding by White Rock and other small creeks in Dallas and Kaufman Counties in Texas. Minor flooding occurred on the Elm Fork of the Trinity at Carrollton and below; and on the main stem of the Trinity at Dallas and Rosser, Tex. Greatest overflow occurred along the East Fork of the Trinity, Crandall and below, and in the Rosser reach of the main stem. There was an overflow of 4 to 6 feet in that area and several levee breaks occurred along the lower East Fork. The flood crest flattened rapidly below Rosser with only a little more than a foot of overflow at Trinidad on August 3. This flooding was due to general rain, which began over the upper Trinity on the evening of the 25th and continued through the 27th. Amounts ranged from 8 to 12 inches from northwest Dallas County southeastward through Kaufman County during the morning of the 27th. There was considerable damage in the cities of Dallas and Tarrant Counties due to the rapid rate of fall and local runoff problems, but there was little damage from the rivers. Big Fossil Creek caused minor damage in a few homes in Richland Hills. There was some loss of livestock along the East Fork and its tributaries in Kaufman County.

Heavy rains from 3 to 15 inches between the 26th and 28th from Abilene, Tex., eastward to Tyler, Tex., caused flash flooding along Rock Creek near Mineral Wells, Tex. About 50 persons were forced to evacuate their homes near Bennett, Tex. Minor flooding occurred along the Brazos at Rainbow, Tex., on the 29th.

FLOOD STAGE DATA

(All dates in July unless otherwise specified)

River and station	Flood stage	Above flood stages -dates		Crest*	
		From—	To—	Stage	Date
	Ft.			Ft.	
HUDSON BAY DRAINAGE					
Red River of the North Basin					
Red River of the North: Wahpeton, N. Dak.	10	(5 (19	10 22	12.7 11.1	11 21
Moorhead, Minn.	17	4	Aug. 3	(27.1 (24.9	12 25
Grand Forks, N. Dak.	28	11	20	31.4	15
ATLANTIC SLOPE DRAINAGE					
Neuse: Smithfield, N. C.	13	4	7	17.0	6
Goldsboro, N. C.	14	4	12	22.1	8
Kinston, N. C.	14	5	15	18.05	11
Cape Fear: Lock No.3, Tarheel, N.C.	42	5	6	42.0	5,6
Lock No. 2, Elizabethtown, N.C.	20	6	7	21.5	6
MISSISSIPPI SYSTEM					
Upper Mississippi Basin					
Minnesota: Montevideo, Minn.	14	23	Aug. 1	14.6	26
Carver, Minn.	18	15	16	18.3	16
Sangamon: Monticello, Ill.	11	14 23	22 26	13.9 11.2	18 25
Missouri Basin					
Little Sioux: Spencer, Iowa	10	5	8	13.3	6
Nemaha: Falls City, Nebr.	20	20	20	23.3	20
Platte: Rosendale, Mo.	13	22	22	13.0	22
Saline: Wakeeney (nr), Kans.	14	2	2	18.0	2
North Fork Solomon: Downs, Kans.	18	3	3	18.25	3
South Fork Solomon: Hill City, Kans.	8	1 19	2 19	12.0 9.75	1 19
Damar, Kans.	7	2	2	12.6	2
Osborne, Kans.	12	2 8 17 18	4 12 17 19	16.0 16.3 14.2 14.5 (14.0 (14.1	2 3 12 17 19 19
Solomon: Beloit, Kans.	20	(3 (27	4 27	22.4 20.05	4 27
Glasco, Kans.	22	4	5	23.2	5
Lyon Creek: Woodbine, Kans.	17	1 3	1 3	17.1 17.2	1 3
Frenchman Creek: Palisade, Nebr.	7	31	Aug. 1	8.2 8.1	31 Aug. 1
Culbertson, Nebr.	8	31	31	8.95	31
Red Willow Creek: Red Willow, Nebr.	12	18	18	13.75	18

River and station	Flood stage	Above flood stages -dates		Crest*	
		From—	To—	Stage	Date
	Ft.			Ft.	
MISSISSIPPI SYSTEM (Cont'd.)					
Missouri Basin (Cont'd.)					
Prairie Dog Creek: Norton, Kans.	18	1	2	20.4	1
Woodruff, Kans.	18	3	3	20.65	3
Republican: Straton, Nebr.	8	31	Aug. 1	9.2	1
Cambridge, Nebr.	9	18	18	9.4	18
Orleans, Nebr.	9	3	3	9.4	3
Soldier Creek: Delia, Kans.	17			23.0	24
Ohio Basin					
Mississinowa: Marion, Ind.	13	22	22	13.7	21
Eel: Bowling Green, Ind.	17	16	16	19.0	16
Muscatatuck: Crothersville, Ind.	T16	16	18	21.4	17
East Fork: Seymour, Ind.	14	16	17	16.3	16
White: Anderson, Ind.	10	16	16	10.5	16
Nora, Ind.	T6	16	17	7.3	17
Centerton, Ind.	603	15	16	604.0	15
Spencer, Ind.	14	15	17	17.4	17
Elliston, Ind.	18	16	19	21.25	18
Edwardsport, Ind.	15	18	20	17.5	19
Wabash: Lafayette, Ind.	11	23	24	13.3	24
Covington, Ind.	16	24	25	E18.5	24
Montezuma, Ind.	14	(14 (24	18 26	19.6 15.05	15 25
Terre Haute, Ind.	14	15	19	16.6	16
WEST GULF OF MEXICO DRAINAGE					
Elm Fork: Carrollton, Tex.	6	27		7.3	27
Trinity: Dallas, Tex.	30	27	29	32.8	28
Rosser, Tex.	26	28	Aug. 1	30.5	30
Brazos: Rainbow, Tex.	20	29	29	21.7	29

* Provisional
E Estimated
T Tentative

RAWINSONDE DATA

Average monthly values

JULY 1962

ALBANY, N. Y.
1004 MB

Standard pressure surface (mb.)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind	
					Direction	Speed
SURFACE	31	86	16.0	82	229	1.6
1000	31	118	15.3	78	247	1.2
950	31	552	15.7	68	279	4.9
900	31	1,013	13.6	66	290	9.1
850	31	1,492	10.6	65	295	12.0
800	31	1,995	7.5	63	296	14.2
750	31	2,519	4.4	55	293	16.7
700	31	3,084	1.6	52	292	18.8
650	31	3,672	- 1.5	46	289	22.0
600	31	4,312	- 5.2	42	291	23.9
550	31	4,983	- 8.9	34	288	26.0
500	31	5,724	-13.6		289	30.5
450	31	6,508	-18.8		289	34.8
400	31	7,387	-24.7		287	37.1
350	31	8,345	-31.7		287	40.2
300	31	9,418	-39.8		287	44.3
250	31	10,644	-47.9		288	46.8
200	31	12,094	-53.7		285	52.7
175	31	12,951	-54.2		284	51.5
150	30	13,934	-56.0		287	41.0
125	29	15,089	-57.7		286	31.9
100	29	16,498	-57.3		289	20.0
80	29	17,912	-56.0		291	8.4
70	29	18,761	-54.8		312	3.7
60	29	19,751	-53.2		74	2.3
50	29	20,928	-52.1		87	6.2
40	28	22,377	-50.6		84	11.5
30	27	24,259	-48.8		88	16.7
25	27	25,461	-47.1		85	19.6
20	24	26,939	-44.9		93	21.6
15	14	28,853	-42.3		84	23.1
10						
7						

ALBUQUERQUE, N. MEX.
841 MB

Standard pressure surface (mb.)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind	
					Direction	Speed
SURFACE	31	1,619	18.2	65	102	2.7
1000	31	102				
950	31	548				
900	31	1,023				
850	31	1,525				
800	31	2,047	18.0	54	184	5.4
750	31	2,591	14.9	54	209	4.7
700	31	3,178	11.2	54	269	4.3
650	31	3,785	6.8	58	281	5.1
600	31	4,445	1.6	65	301	3.9
550	31	5,132	- 3.5	68	314	3.1
500	31	5,889	- 8.1	67	254	4.3
450	31	6,692	-12.8	54	236	8.5
400	31	7,591	-18.3	47	240	12.6
350	31	8,574	-25.4	45	239	17.3
300	31	9,674	-33.6	39	236	24.1
250	31	10,927	-43.4		234	26.8
200	31	12,391	-54.8		235	32.8
175	31	13,234	-60.5		245	30.3
150	31	14,184	-65.4		245	21.6
125	31	15,282	-69.5		242	13.8
100	31	16,611	-69.7		236	3.5
80	31	17,951	-66.2		107	8.7
70	31	18,767	-63.3		97	12.0
60	31	19,722	-60.4		91	14.6
50	31	20,867	-57.2		92	18.5
40	30	22,287	-54.1		88	22.2
30	26	24,142	-50.9		88	24.1
25	26	25,336	-48.6		89	25.1
20	25	26,810	-46.8		87	27.2
15	22	28,725	-43.9		84	30.5
10	13	31,463	-40.6			
7						

AMARILLO, TEXAS
894 MB

Standard pressure surface (mb.)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind	
					Direction	Speed
SURFACE	31	1,095	19.8	80	201	5.6
1000	31	110				
950	31	558				
900	31	1,035				
850	31	1,528	20.9	58	216	14.2
800	31	2,051	18.1	55	224	13.0
750	31	2,597	14.6	56	234	10.5
700	31	3,181	10.5	59	243	8.2
650	31	3,789	6.0	62	235	6.6
600	31	4,446	1.4	62	232	5.6
550	31	5,135	- 2.9	62	242	5.6
500	31	5,891	- 7.3	56	245	8.5
450	31	6,697	-11.9	47	254	11.5
400	31	7,598	-17.6	41	255	11.1
350	31	8,585	-24.4	40	259	12.0
300	31	9,689	-32.9	36	258	13.4
250	31	10,946	-43.0		257	17.3
200	31	12,411	-54.9		254	20.4
175	31	13,253	-60.6		254	19.6
150	31	14,201	-66.0		259	15.9
125	31	15,296	-69.1		260	10.5
100	31	16,629	-69.1		273	2.5
80	31	17,972	-66.2		108	8.4
70	29	18,796	-63.0		96	11.3
60	27	19,741	-60.3		91	16.1
50	27	20,887	-56.8		97	18.1
40	25	22,312	-53.9		90	21.2
30	22	24,168	-50.7		89	24.3
25	22	25,363	-48.1		90	25.1
20	19	26,836	-46.6		90	25.8
15	9	28,762	-42.8			
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7						

ANCHORAGE, ALASKA
1016 MB

Standard pressure surface (mb.)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind	
					Direction	Speed
SURFACE	31	29	12.9	80	177	2.7
1000	31	159	13.2	78	185	4.7
950	31	587	11.7	71	181	5.8
900	31	1,040	9.2	70	145	3.1
850	31	1,512	6.5	70	124	2.9
800	31	2,007	3.3	72	117	3.1
750	31	2,525	.3	71	98	3.9
700	31	3,078	- 2.7	67	83	3.9
650	31	3,656	- 5.6	33	69	5.6
600	31	4,287	- 9.2	54	83	5.8
550	31	4,947	-13.2	46	74	6.4
500	31	5,674	-18.0	45	68	7.0
450	31	6,445	-23.7	37	70	7.6
400	31	7,302	-30.0	42	60	9.9
350	30	8,232	-37.7		57	12.2
300	30	9,277	-45.9		56	12.4
250	30	10,470	-52.8		53	12.6
200	30	11,905	-52.9		43	8.7
175	30	12,772	-50.3		44	6.2
150	30	13,780	-49.6		35	4.7
125	30	14,973	-49.8		33	3.3
100	30	16,433	-49.7		56	2.3
80	30	17,896	-49.0		63	3.1
70	30	18,777	-48.7		77	5.1
60	30	19,787	-48.2		85	7.2
50	30	20,990	-47.7		84	8.0
40	29	22,466	-46.9		87	10.9
30	29	24,377	-45.7		85	13.0
25	28	25,596	-43.9		85	16.3
20	26	27,104	-41.5		84	18.3
15	21	29,073	-38.2		87	18.3
10	6	31,900	-34.2			
7						

ANNETTE, ALASKA
1017 MB

Standard pressure surface (mb.)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind	
					Direction	Speed
SURFACE	31	37	12.7	81	114	.8
1000	31	180	12.1	79		.0
950	31	610	10.5	76	300	1.7
900	31	1,059	8.7	73	281	1.6
850	31	1,530	5.9	67	271	3.1
800	31	2,025	3.5	60	266	4.7
750	31	2,544	.9	56	250	5.4
700	31	3,098	- 2.2	50	253	6.0
650	31	3,678	- 5.3	46	254	7.4
600	31	4,307	- 9.5	44	246	7.2
550	31	4,966	-13.7	45	242	7.8
500	31	5,693	-18.4		237	7.6
450	31	6,462	-24.5	38	245	6.8
400	31	7,320	-30.9		248	8.4
350	31	8,253	-38.3		246	10.5
300	31	9,294	-46.4		242	12.0
250	30	10,479	-52.9		250	16.3
200	30	11,910	-53.4		253	15.3
175	30	12,774	-51.3		252	11.7
150	30	13,776	-50.8		253	10.3
125	30	14,962	-51.2		246	8.4
100	30	16,410	-51.9		247	4.5
80	30	17,857	-51.6		203	2.5
70	30	18,726	-51.3		108	2.1
60	30	19,726	-50.8		100	2.7
50	30	20,914	-50.2		93	5.4
40	28	22,376	-49.3		91	8.9
30	26	24,268	-47.5		86	12.8
25	26	25,478	-45.7		87	15.7
20	26	26,971	-43.1		86	18.1
15	26	28,924	-39.7		90	21.0
10	24	31,727	-34.4		84	26.0
7	14	34,254	-29.9			

ATHENS, GA.
988 MB

Standard pressure surface (mb.)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind	
					Direction	Speed
SURFACE	31	246	21.1	93	353	1.9
1000	31	143				
950	31	589	23.0	75	317	2.9
900	31	1,062	20.8	71	282	4.3
850	31	1,555	17.7	71	290	7.0
800	31	2,071	14.2	68	288	8.4
750	31	2,608	11.6	51	292	10.7
700	31	3,189	8.3	46	287	10.3
650	31	3,795	5.1	38	289	10.7
600	31	4,447	1.3	37	291	12.8
550	31	5,136	- 2.7		290	14.0
500	31	5,894	- 7.0		294	15.5
450	31	6,703	-12.0	33	294	17.3
400	31	7,602	-17.4	31	301	20.0
350	31	8,589	-24.4		304	21.0
300	31	9,693	-32.9		302	24.1
250	31	10,951	-43.0		301	27.0
200	31	12,416	-55.0		307	31.7
175	31	13,258	-61.1		312	29.5
150	31	14,202	-66.8		314	24.5
125	31	15,295	-70.0		326	15.9
100	31	16,621	-69.7		327	7.4
80	31	17,961	-66.2		24	7.6
70	31	18,785	-63.1		60	10.9
60	31	19,734	-59.2		84	15.2
50	31	20,885	-56.0		89	18.1
40	30	22,314	-53.2		90	20.0
30	28	24,183	-50.1		90	21.6
25	20	25,379	-48.4		94	26.4
20	8	26,863	-46.5			
15						
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5						

BARROW, ALASKA
1014 MB

Standard pressure surface (mb.)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind	
					Direction	Speed
SURFACE	30	8	2.6	93	177	.6
1000	30	124	3.8	88	191	3.7
950	30	542	5.3	78	220	6.4
900	30	983	4.1	72	239	9.3
850	30	1,447	2.4	67	242	11.1
800	30	1,936	.3	63	247	13.2
750	30	2,450	- 1.8	56	250	15.7
700	30	2,999	- 4.3	51	256	17.9
650	30	3,573	- 7.1	46	256	21.0
600	30	4,202	-10.7	44	257	21.4
550	29	4,861	-14.7	42	255	24.7
500	29	5,583	-19.4	40	258	25.5
450	29	6,352	-24.8	40	257	26.4
400	29	7,206	-31.0	41	259	28.6
350	29	8,139	-37.8		259	34.2
300	29	9,184	-45.3		259	35.9
250	29	10,383	-51.4		263	35.9
200	29	11,833	-50.2		264	27.8
175	29	12,710	-47.8		265	21.0
150	29	13,728	-47.5		263	16.5
125	29	14,933	-47.4		270	13.2
100	29	16,410	-46.7		263	9.1
80	29	17,892	-46.0		262	4.1
70	29	18,778	-45.6		246	1.7
60	29	19,810	-45.3			.0
50	28	21,027	-45.0		90	3.7
40	28	22,518	-44.8		89	4.9
30	24	24,446	-43.2		90	7.2
25	24	25,678	-41.8		89	10.7
20	23	27,196	-39.5		87	9.9
15	23	29,178	-36.4		80	11.5
10	22	32,020	-31.4		77	14.2
7	18	34,587	-27.6		87	14.2
5	11	36,996	-24.8			

BARTER IS., ALASKA
1015 MB

Standard pressure surface (mb.)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind	
					Direction	Speed
SURFACE	27	15	3.3	93	359	.6
1000	27	133	5.3	90	257	1.9
950	27	552	8.2	75	268	9.1
900	27	1,001	6.5	66	276	13.0
850	27	1,469	4.4	63	275	15.2
800	27	1,960	2.0	64	276	16.9
750	27	2,474	- .9	66	278	19.4
700	27	3,027	- 4.3	66	275	19.0
650	27	3,601	- 7.6	65	277	19.6
600	27	4,228	-10.7	52	275	20.6
550	27	4,886	-14.5		278	21.6
500	27	5,608	-19.2	40	282	23.7
450	27	6,378	-24.6		287	24.1
400	27	7,232	-30.8	39	286	28.2
350	27	8,166	-38.0		290	26.6
300	27	9,209	-46.2		290	25.5
250	27	10,402	-52.1		298	25.8
200	27	11,848	-50.0		286	18.1
175	26	12,726	-48.3		287	17.7
150	26	13,742	-47.8		285	14.0
125	26	14,946	-47.7		284	10.1
100	24	16,415	-47.2		289	7.6
80	24	17,894	-46.5		287	2.1
70	23	18,774	-46.1		343	1.4
60	23	19,806	-45.7		88	2.5
50	22	21,027	-45.3		100	3.7
40	21	22,515	-44.9		80	5.6
30	18	24,451	-43.8		84	6.8
25	18	25,681	-41.9		82	9.5
20	17	27,206	-39.8		87	10.7
15	9	29,174	-36.7			
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7						
5						

BETHEL, ALASKA
1012 MB

Standard pressure surface (mb.)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind	
					Direction	Speed
SURFACE	31	39	12.2	88	253	4.3
1000	31	141	13.2	83	270	4.3
950	31	569	11.9	72	169	2.1
900	31	1,024	9.3	71	156	4.3
850	31	1,496	6.6	72	152	5.4
800	31	1,992	4.0	67	150	5.6
750	31	2,512	1.4	61	153	4.3
700	31	3,068	- 1.4	56	135	3.5
650	31	3,649	- 4.6	53	124	3.3
600	31	4,283	- 8.1	49	110	4.7
550	31	4,944	-12.1	43	110	4.1
500	31	5,678	-16.8	39	85	3.5
450	31	6,450	-22.4	41	59	5.2
400	31	7,318	-28.7	42	40	5.4
350	31	8,259	-36.1		25	6.6
300	31	9,311	-44.4		17	9.7
250	31	10,511	-52.1		17	13.8
200	31	11,944	-54.5		8	11.3
175	31	12,805	-51.6		5	8.2
150	31	13,808	-50.8		358	5.6
125	31	14,995	-51.0		1	4.1
100	31	16,449	-50.7		8	2.5
80	30	17,904	-49.9		54	3.1
70	30	18,774	-49.4		70	3.3
60	30	19,789	-49.0		76	5.8
50	29	20,990	-48.5		80	7.4
40	28	22,462	-47.8		90	11.7
30	28	24,366	-46.7		84	12.4
25	27	25,577	-45.4		81	15.5
20	24	27,074	-42.9		83	17.1
15	18	29,022	-39.9		86	21.4
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7						
5						

BISMARCK, N. DAK.
956 MB

Standard pressure surface (mb.)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind	
					Direction	Speed
SURFACE	29	505	13.9	90	60	1.0
1000	29	124				
950	29	562	15.0	85		.0
900	29	1,021	15.7	69	250	1.6
850	29	1,505	13.3	65	272	4.9
800	29	2,013	10.6	65	295	9.5
750	29	2,552	7.2	61	294	15.5
700	29	3,114	3.5	60	284	19.6
650	29	3,710	- .2	58	286	24.3
600	29	4,348	- 4.0	50	285	28.8
550	29	5,023	- 8.3	42	284	31.5
500	29	5,764	-13.2	35	282	35.8
450	29	6,550	-18.6		281	37.7
400	29	7,427	-24.7		279	41.6
350	29	8,386	-31.7		281	46.6
300	29	9,458	-39.9		278	49.5
250	29	10,682	-48.6		277	53.4
200	29	12,124	-54.9		270	57.9
175	29	12,977	-55.8		267	58.3
150	28	13,957	-56.6		272	54.8
125	28	15,112	-57.6		279	40.0
100	28	16,519	-58.0		285	22.5
80	28	17,927	-57.0		294	8.9
70	28	18,781	-55.4		310	2.7
60	28	19,768	-53.9		74	7.8
50	28	20,943	-52.5		88	11.5
40	28	22,393	-50.4		81	15.2
30	28	24,280	-48.3		88	19.4
25	26	25,479	-46.9		90	21.0
20	24	26,966	-44.2		88	18.3
15	13	28,932	-40.5			
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7						
5						

BOISE, IDAHO
916 MB

Standard pressure surface (mb.)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind	
					Direction	Speed
SURFACE	31	868	15.8	47	175	3.5
1000	31	110				
950	31	555				
900	31	1,018	18.3	39	222	2.7
850	31	1,509	18.9	31	321	3.9
800	31	2,026	15.6	31	296	3.3
750	31	2,568	11.6	34	294	4.9
700	31	3,142	7.2	37	272	10.7
650	31	3,744	2.6	42	265	14.2
600	31	4,389	- 2.2	41	252	18.8
550	31	5,068	- 7.3	42	253	21.4
500	31	5,810	-12.6	42	249	22.5
450	31	6,598	-18.4	37	247	24.3
400	31	7,475	-24.9	33	248	28.6
350	31	8,432	-32.4		247	32.1
300	31	9,500	-41.0		246	35.8
250	31	10,716	-49.9		247	40.6
200	31	12,156	-54.8		248	46.2
175	31	13,010	-54.7		247	44.9
150	31	13,994	-56.3		249	35.8
125	31	15,145	-58.6		254	25.3
100	31	16,544	-60.0		246	13.0
80	30	17,940	-59.1		236	3.5
70	30	18,786	-57.6		157	1.2
60	30	19,757	-56.2		91	6.6
50	29	20,920	-54.4		81	10.3
40	29	22,358	-52.0		88	13.4
30	26	24,229	-49.7		86	16.3
25	25	25,426	-47.9		82	15.7
20	23	26,907	-45.5		82	20.4
15	17	28,845	-41.4		89	25.6
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5						

BROWNSVILLE, TEXAS
1014 MB

Standard pressure surface (mb.)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind	
					Direction	Speed
SURFACE	31	7	24.7	93	146	6.0
1000	31	133	25.4	85	157	13.6
950	31	582	23.0	79	171	23.9
900	31	1,056	20.8	66	173	23.1
850	31	1,549	18.8	51	172	21.4
800	31	2,067	16.2	46	164	16.7
750	31	2,606	13.1	41	151	13.4
700	31	3,190	9.6	41	132	11.5
650	31	3,793	5.9	40	118	10.7
600	31	4,452	2.2	35	108	10.9
550	31	5,142	- 2.2	33	97	9.5
500	31	5,900	- 7.0	33	94	8.4
450	31	6,707	-12.2	26	97	9.3
400	31	7,604	-18.5	26	100	8.9
350	31	8,587	-25.2		95	10.1
300	31	9,688	-33.3		102	9.5
250	31	10,942	-43.1		104	10.3
200	31	12,407	-54.5		109	12.2
175	31	13,251	-60.6		108	14.4
150	31	14,197	-66.6		102	14.0
125	31	15,285	-71.4		93	15.9
100	31	16,598	-72.4		83	21.0
80	30	17,924	-67.7		88	22.7
70	29	18,729	-65.4		88	23.3
60	29	19,675	-62.1		89	27.8
50	29	20,811	-58.8		90	30.7
40	28	22,224	-54.9		90	33.8
30	28	24,081	-51.0		93	37.9
25	28	25,273	-48.7		92	37.1
20	27	26,747	-46.4		88	38.7
15	25	28,674	-43.3		92	39.1
10	18	31,426	-38.4		96	53.6
7	11	33,894	-33.7			
5	6	36,292	-29.4			

BUFFALO, N. Y.
990 MB

Standard pressure surface (mb.)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind	
					Direction	Speed
SURFACE	31	218	15.7	77	204	2.5
1000	31	132				
950	31	571	17.3	61	283	2.9
900	31	1,030	14.5	61	300	6.2
850	31	1,511	11.1	64	291	9.3
800	31	2,014	7.8	61	284	12.8
750	31	2,542	5.1	56	286	14.6
700	31	3,105	2.3	50	287	18.1
650	31	3,696	- .9	48	288	20.0
600	31	4,336	- 4.2	41	289	20.4
550	31	5,012	- 8.2		288	24.1
500	31	5,752	-12.8		288	26.4
450	31	6,539	-18.3		286	30.1
400	31	7,419	-24.3		289	33.4
350	31	8,378	-31.4		289	38.9
300	31	9,453	-39.0		291	43.3
250	31	10,680	-47.7		291	48.4
200	31	12,133	-53.2		296	53.0
175	31	12,991	-54.9		295	49.9
150	31	13,973	-56.8		292	44.3
125	31	15,124	-58.4		291	32.3
100	31	16,526	-58.5		291	22.7
80	31	17,931	-57.2		293	12.0
70	31	18,782	-55.7		301	6.4
60	31	19,764	-54.1		353	3.1
50	31	20,938	-52.5		71	7.4
40	31	22,386	-50.5		88	8.5
30	31	24,271	-48.2		78	11.5
25	30	25,480	-46.5		84	13.8
20	28	26,963	-44.5		87	16.9
15	19	28,906	-40.8		85	17.3
10						
7						
5						

BURRWOOD, LA.
1016 MB

Standard pressure surface (mb.)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind	
					Direction	Speed
SURFACE	31	3	27.7	84	289	3.7
1000	31	146	27.1	79	276	4.9
950	31	598	24.0	78	267	5.6
900	31	1,072	21.0	76	246	3.3
850	31	1,566	18.2	70	227	1.4
800	31	2,084	15.4	62	184	.8
750	31	2,624	12.1	60		.0
700	31	3,204	8.9	57	22	1.0
650	31	3,811	5.4	56	2	2.7
600	31	4,465	1.9	48	3	3.5
550	31	5,157	- 2.2	46	360	4.5
500	31	5,914	- 6.6	39	18	5.8
450	30	6,726	-11.5	33	21	5.6
400	30	7,625	-17.3	30	45	6.0
350	30	8,611	-24.3		56	6.4
300	30	9,716	-32.5		81	7.6
250	30	10,975	-42.3		91	9.1
200	30	12,446	-54.2		82	10.5
175	30	13,289	-60.8		79	11.9
150	30	14,233	-67.1		66	10.3
125	30	15,320	-71.8		60	12.2
100	30	16,632	-72.0		70	16.3
80	30	17,957	-68.0		79	17.1
70	30	18,772	-64.8		82	19.2
60	30	19,714	-61.1		84	24.7
50	30	20,858	-57.3		87	27.4
40	30	22,281	-53.7		90	29.0
30	30	24,143	-50.9		88	31.9
25	30	25,336	-48.6		87	33.6
20	29	26,809	-46.2		88	36.7
15	27	28,726	-43.8		86	38.7
10	25	31,490	-37.9		88	48.8
7	17	33,980	-33.5		91	53.8
5						

CANTON IS., PACIFIC AREA
1009 MB

Standard pressure surface (mb.)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind	
					Direction	Speed
SURFACE	31	4	26.8	79	79	11.3
1000	31	86	26.3	79	84	12.2
950	31	529	23.0	80	99	17.5
900	31	1,008	19.8	77	96	19.6
850	31	1,500	17.1	68	90	20.4
800	31	2,016	15.5	48	90	19.2
750	31	2,562	13.0	37	89	18.5
700	31	3,139	9.6	42	87	18.5
650	31	3,744	6.3	36	87	16.3
600	31	4,403	2.6		91	16.1
550	31	5,096	- 1.4		97	12.8
500	31	5,856	- 5.5		87	13.4
450	31	6,671	-10.6		88	13.6
400	31	7,574	-16.2		99	6.4
350	31	8,566	-23.2		114	2.7
300	31	9,676	-31.7		253	3.5
250	31	10,939	-42.0		284	7.2
200	30	12,411	-54.2		291	8.0
175	30	13,254	-61.3		293	7.6
150	30	14,194	-68.8		285	9.7
125	28	15,262	-76.8		269	5.1
100	26	16,536	-79.2		110	3.1
80	26	17,831	-72.5		271	16.3
70	24	18,625	-69.0		273	25.5
60	24	19,552	-65.7		271	30.3
50	24	20,669	-62.6		271	14.4
40	24	22,052	-60.9		92	26.4
30	24	23,861	-56.4		87	47.8
25	24	25,027	-53.2		88	51.5
20	23	26,472	-50.6		89	56.9
15	21	28,359	-48.1		90	62.8
10	21	31,077	-41.0		91	27.0
7	13	33,510	-38.4		211	7.0
5	5	35,818	-39.0			

See reference note at end of table

RAWINSONDE DATA

Average monthly values

JULY 1962

CAPE HATTERAS, N. C.
1014 MB

Standard pressure surface (mb)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind Direction	Wind Speed
SURFACE	30	4	23.4	54	288	2.1
1000	30	127	23.6	81	292	3.3
950	30	572	21.2	74	284	5.6
900	30	1,042	18.4	71	283	8.5
850	30	1,530	15.6	68	282	9.5
800	30	2,043	12.7	65	279	11.7
750	30	2,582	9.7	59	277	13.4
700	30	3,153	7.3	47	282	14.8
650	30	3,758	4.0	38	277	16.9
600	30	4,406	.5	37	279	20.0
550	30	5,096	- 3.1		280	21.8
500	30	5,849	- 7.3		277	22.2
450	30	6,658	-12.3		282	23.7
400	30	7,553	-18.2		281	24.3
350	29	8,536	-25.2		282	27.8
300	29	9,637	-33.6		283	31.1
250	29	10,891	-43.2		285	34.0
200	29	12,357	-54.3		294	38.7
175	28	13,201	-59.9		299	38.1
150	27	14,152	-64.3		303	30.9
125	27	15,260	-66.9		298	21.8
100	27	16,607	-66.1		307	12.8
80	27	17,972	-62.4		357	4.3
70	27	18,807	-60.2		61	8.5
60	27	19,768	-57.7		76	12.2
50	27	20,926	-55.0		91	17.7
40	27	22,361	-52.1		87	21.0
30	26	24,239	-49.3		91	23.3
25	26	25,440	-47.3		92	26.0
20	25	26,925	-44.7		91	27.2
15	24	28,862	-41.6		91	28.4
10	22	31,642	-37.1		88	31.9
7	9	34,114	-34.6			
5						

CARIBOU, ME.
990 MB

Standard pressure surface (mb)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind Direction	Wind Speed
SURFACE	31	191	12.9	88	311	1.9
1000	31	106				
950	31	537	12.0	78	327	3.9
900	31	990	10.2	72	333	4.7
850	31	1,464	8.1	71	323	6.8
800	31	1,963	5.1	74	313	7.8
750	31	2,489	2.2	70	308	8.5
700	31	3,042	- 1.0	68	307	8.7
650	30	3,628	- 4.1	61	304	8.7
600	30	4,259	- 7.3	54	288	10.3
550	30	4,927	-11.1	49	288	11.5
500	30	5,658	-15.8	41	289	12.8
450	30	6,443	-20.9	37	287	14.0
400	30	7,305	-27.2	38	281	17.3
350	30	8,253	-34.4		275	18.1
300	30	9,313	-42.1		268	18.7
250	30	10,527	-48.8		263	24.3
200	30	11,981	-50.7		267	25.8
175	30	12,852	-50.1		269	23.1
150	30	13,857	-50.9		266	22.2
125	29	15,042	-51.9		268	17.7
100	29	16,483	-52.9		272	11.9
80	29	17,924	-52.5		259	4.3
70	29	18,791	-51.4		214	1.7
60	29	19,794	-50.8		108	3.1
50	29	20,985	-49.8		99	6.8
40	29	22,450	-48.5		94	10.9
30	27	24,350	-47.2		91	14.6
25	27	25,562	-45.6		90	18.1
20	27	27,058	-43.0		89	20.4
15	27	29,012	-39.7		86	22.2
10	23	31,815	-34.0		90	31.1
7	14	34,337	-27.4			
5						

CHARLESTON, S. C.
1014 MB

Standard pressure surface (mb)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind Direction	Wind Speed
SURFACE	31	13	23.3	87	248	1.2
1000	31	136	24.3	82	241	2.3
950	31	587	23.5	71	265	5.8
900	31	1,058	20.7	70	263	8.4
850	31	1,551	17.5	72	263	6.4
800	31	2,067	14.3	71	269	7.6
750	31	2,606	11.2	64	278	9.1
700	31	3,184	7.9	56	277	10.3
650	31	3,789	4.7	51	276	11.1
600	31	4,441	1.5	44	280	12.4
550	31	5,132	- 2.0	41	280	13.0
500	31	5,890	- 6.4	35	284	14.2
450	31	6,703	-11.2	37	286	15.0
400	31	7,603	-17.1	36	294	18.1
350	31	8,591	-23.9	34	296	19.4
300	31	9,699	-32.3		302	21.0
250	31	10,959	-42.4		306	23.7
200	31	12,429	-54.3		311	26.8
175	31	13,273	-60.5		319	25.8
150	31	14,221	-66.1		325	21.6
125	31	15,316	-69.7		330	14.6
100	31	16,645	-69.1		336	6.8
80	30	17,995	-65.3		24	7.2
70	30	18,817	-62.9		57	12.2
60	30	19,770	-60.0		81	18.1
50	30	20,920	-56.1		91	22.9
40	29	22,351	-52.8		91	23.1
30	28	24,225	-49.3		86	25.3
25	27	25,426	-47.8		87	26.0
20	25	26,902	-45.7		85	27.6
15	18	28,837	-42.8		87	30.5
10	5	31,605	-38.4			
7						
5						

COLD BAY, ALASKA
1015 MB

Standard pressure surface (mb)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind Direction	Wind Speed
SURFACE	30	30	9.2	91	196	5.2
1000	30	149	8.9	87	164	10.5
950	30	572	7.1	84	162	12.2
900	30	1,017	5.9	80	169	9.7
850	30	1,484	4.4	73	149	7.4
800	30	1,977	3.1	67	131	5.2
750	30	2,496	1.1	61	13	1.7
700	30	3,051	- 1.6	58	20	3.3
650	30	3,634	- 4.8	53	17	3.3
600	30	4,263	- 8.3	49	57	4.3
550	30	4,927	-12.3	45	32	4.1
500	30	5,655	-16.8	44	7	5.8
450	30	6,425	-22.2	42	16	8.0
400	30	7,293	-28.7	39	4	11.3
350	29	8,234	-35.7		3	11.1
300	29	9,288	-43.5		355	14.8
250	29	10,495	-50.3		352	18.3
200	27	11,931	-53.1		342	15.5
175	27	12,794	-51.5		337	12.2
150	26	13,798	-51.1		333	9.5
125	24	14,991	-51.5		333	8.0
100	23	16,440	-51.4		351	4.5
80	21	17,886	-51.2		25	3.1
70	21	18,751	-51.1		69	3.5
60	20	19,768	-50.7		90	6.2
50	19	20,958	-50.4		80	7.6
40	18	22,411	-49.8		76	9.7
30	16	24,303	-48.0		85	12.8
25	16	25,509	-46.3		89	15.2
20	16	26,998	-44.0		84	17.5
15	15	28,937	-41.1		82	21.4
10	11	31,701	-36.9		80	26.4
7	11	34,180	-34.1			
5	6	36,498	-30.4			

COLUMBIA, MO.
987 MB

Standard pressure surface (mb)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind Direction	Wind Speed
SURFACE	31	238	19.7	90	142	1.9
1000	31	127				
950	31	571	21.7	71	227	3.[illegible]
900	31	1,041	19.5	68	272	8.7
850	31	1,532	17.1	62	277	12.0
800	31	2,048	14.8	53	276	13.8
750	31	2,587	11.5	52	279	14.8
700	31	3,165	7.7	53	282	16.5
650	31	3,767	3.7	53	280	17.9
600	31	4,418	- .4	51	282	20.0
550	31	5,102	- 4.5	43	284	20.4
500	31	5,854	- 8.5	37	281	22.3
450	31	6,660	-13.3		282	25.1
400	31	7,553	-19.2		284	28.[illegible]
350	31	8,533	-25.8		284	36.5
300	31	9,632	-34.1		285	41.0
250	31	10,883	-43.7		284	48.0
200	30	12,345	-54.3		282	53.2
175	30	13,190	-59.7		284	50.7
150	30	14,144	-64.1		288	42.2
125	30	15,252	-66.8		288	27.[illegible]
100	30	16,599	-66.9		298	16.1
80	30	17,959	-63.7		349	6.0
70	30	18,783	-61.6		48	6.0
60	30	19,745	-58.2		78	7.6
50	30	20,901	-55.4		81	11.9
40	29	22,338	-52.4		89	16.1
30	26	24,213	-50.0		88	19.4
25	22	25,406	-48.8		87	19.4
20	19	26,885	-45.9		82	22.2
15	6	28,865	-43.5			
10						
7						
5						

DAYTON, OHIO
981 MB

Standard pressure surface (mb)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind Direction	Wind Speed
SURFACE	31	297	17.9	91	110	.8
1000	31	130				
950	31	573	19.1	75	251	5.1
900	31	1,036	16.8	70	268	8.4
850	31	1,522	14.0	68	280	11.1
800	31	2,032	11.5	62	284	13.6
750	31	2,567	8.9	53	287	16.1
700	31	3,138	5.9	43	285	18.3
650	31	3,736	2.3	43	288	20.6
600	31	4,384	- 1.2		288	22.5
550	31	5,064	- 5.0		291	25.1
500	31	5,817	- 9.3		291	29.5
450	31	6,618	-14.6		283	31.5
400	31	7,507	-20.7		286	35.9
350	31	8,482	-27.3		287	42.0
300	31	9,575	-35.3		288	47.4
250	31	10,822	-44.4		291	56.0
200	31	12,285	-54.2		291	59.7
175	31	13,134	-58.0		291	56.0
150	31	14,097	-61.8		293	47.6
125	31	15,220	-64.0		295	33.2
100	31	16,585	-64.0		295	21.2
80	31	17,959	-61.3		320	12.0
70	31	18,798	-59.3		359	6.6
60	31	19,764	-56.3		55	7.8
50	31	20,930	-53.5		78	10.3
40	31	22,370	-52.1		84	13.2
30	29	24,239	-49.7		83	17.3
25	28	25,438	-47.6		82	20.2
20	27	26,919	-45.0		81	21.8
15	22	28,847	-42.0		79	24.1
10	12	31,646	-36.9			

DENVER, COLO.
840 MB

Standard pressure surface (mb)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind Direction	Wind Speed
SURFACE	31	1,611	14.6	71	218	3.3
1000	31	106				
950	31	552				
900	31	1,021				
850	31	1,512				
800	31	2,030	17.8	53	253	6.6
750	31	2,575	15.6	43	256	6.8
700	31	3,162	11.6	40	271	6.0
650	31	3,771	6.5	45	275	6.6
600	31	4,427	1.2	49	280	9.5
550	31	5,112	- 4.4	51	276	10.9
500	31	5,864	- 9.9	47	267	14.2
450	31	6,665	-14.9	40	256	16.5
400	31	7,551	-20.8		257	22.3
350	31	8,524	-27.9		254	30.3
300	31	9,613	-35.7		251	40.4
250	31	10,857	-44.8		250	49.9
200	31	12,317	-54.3		249	52.1
175	31	13,163	-59.1		248	46.2
150	31	14,121	-62.7		257	38.1
125	31	15,237	-65.3		259	24.9
100	31	16,592	-65.8		258	12.0
80	31	17,955	-63.6		233	1.7
70	31	18,790	-60.9		87	3.3
60	31	19,747	-57.7		85	9.3
50	31	20,906	-55.0		89	12.4
40	31	22,341	-52.5		87	15.3
30	31	24,212	-50.0		87	18.5
25	30	25,411	-48.0		87	20.4
20	27	26,890	-45.5		89	20.0
15	13	28,824	-41.9			
10						

DODGE CITY, KANS.
926 MB

Standard pressure surface (mb)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind Direction	Wind Speed
SURFACE	31	792	19.7	87	144	3.9
1000	31	118				
950	31	564				
900	31	1,035	21.6	68	167	6.2
850	31	1,531	20.6	60	212	11.1
800	31	2,053	18.1	56	222	10.5
750	31	2,597	14.6	54	234	8.0
700	31	3,183	10.5	54	250	6.6
650	31	3,791	6.3	54	236	7.6
600	31	4,448	1.9	48	237	7.2
550	31	5,135	- 2.8	45	263	7.4
500	31	5,893	- 7.4	44	262	11.1
450	31	6,703	-12.2	40	266	12.8
400	31	7,599	-18.2	43	267	16.9
350	31	8,583	-24.9	37	269	22.2
300	31	9,686	-33.1		264	27.2
250	31	10,942	-43.0		260	32.4
200	31	12,409	-54.3		258	36.9
175	31	13,253	-60.0		262	33.6
150	31	14,204	-64.5		265	27.4
125	31	15,308	-67.9		272	21.2
100	30	16,648	-67.7		289	10.3
80	30	18,000	-64.8		35	2.1
70	30	18,825	-62.0		78	4.9
60	30	19,780	-58.7		85	8.7
50	29	20,934	-55.4		89	12.0
40	28	22,366	-52.9		86	14.0
30	28	24,232	-50.1		87	17.1
25	27	25,431	-48.0		92	19.6
20	14	26,905	-46.0			
15						
10						

EL PASO, TEXAS
884 MB

Standard pressure surface (mb)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind Direction	Wind Speed
SURFACE	31	1,193	21.5	70	239	.8
1000	31	104				
950	31	554				
900	31	1,031				
850	31	1,532	20.9	58	218	1.2
800	31	2,055	18.1	57	196	3.1
750	31	2,600	14.5	58	195	4.9
700	31	3,185	10.4	63	210	5.1
650	31	3,797	5.9	67	197	6.6
600	31	4,449	1.4	70	185	5.6
550	31	5,139	- 3.2	68	181	2.7
500	31	5,894	- 7.5	62	179	4.5
450	31	6,706	-12.3	57	195	5.8
400	31	7,600	-17.9	50	204	7.6
350	31	8,586	-24.8	43	210	8.2
300	31	9,689	-33.1	39	212	9.5
250	31	10,944	-43.3		212	9.3
200	31	12,409	-55.3		214	9.9
175	30	13,247	-61.8		219	7.6
150	30	14,189	-66.8		220	7.4
125	30	15,277	-71.2		207	4.1
100	30	16,597	-71.7		97	5.1
80	30	17,924	-68.5		100	13.8
70	29	18,736	-65.2		98	15.9
60	29	19,678	-62.2		89	18.8
50	29	20,815	-58.6		89	24.1
40	29	22,228	-55.5		90	27.8
30	29	24,079	-51.8		90	27.8
25	29	25,265	-50.4		88	27.8
20	23	26,732	-48.5		85	29.5
15	13	28,641	-45.2			
10						

ELY, NEV.
812 MB

Standard pressure surface (mb)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind Direction	Wind Speed
SURFACE	31	1,908	9.9	46	188	5.8
1000	31	128				
950	31	569				
900	31	1,037				
850	31	1,521				
800	31	2,032	16.0	33	185	4.5
750	31	2,579	15.1	26	175	3.5
700	31	3,159	10.8	29	217	6.0
650	31	3,768	5.7	35	224	7.4
600	31	4,420	.2	39	213	7.6
550	31	5,102	- 5.3	42	219	9.7
500	31	5,851	-10.5	37	232	11.1
450	31	6,649	-15.9		241	15.0
400	31	7,531	-22.6	30	248	17.3
350	31	8,497	-30.0		245	22.0
300	31	9,577	-38.3		247	28.4
250	31	10,809	-46.6		242	37.1
200	31	12,264	-54.1		239	44.7
175	31	13,115	-56.9		239	45.3
150	31	14,085	-60.5		244	37.1
125	31	15,213	-63.0		243	24.9
100	31	16,582	-64.2		238	12.2
80	31	17,955	-62.2		175	3.3
70	30	18,795	-59.6		101	5.8
60	30	19,754	-57.4		84	8.5
50	30	20,913	-55.3		88	12.2
40	30	22,346	-52.6		84	14.8
30	30	24,218	-49.4		87	18.7
25	30	25,419	-47.5		86	19.4
20	27	26,905	-45.1		88	23.9
15	12	28,842	-41.6			
10						

FAIRBANKS, ALASKA
1000 MB

Standard pressure surface (mb)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind Direction	Wind Speed
SURFACE	31	135	13.8	82	242	.6
1000	31	135	13.4	84	262	2.1
950	31	566	14.2	62	250	8.9
900	31	1,024	11.3	63	257	11.1
850	31	1,498	8.0	67	261	10.5
800	31	1,996	4.5	70	254	9.7
750	31	2,513	1.2	74	254	9.3
700	31	3,072	- 2.2	71	254	7.8
650	31	3,648	- 5.5	65	255	8.0
600	31	4,282	- 9.0	61	269	8.4
550	31	4,941	-13.1	52	281	8.0
500	31	5,671	-18.0	49	287	7.8
450	31	6,441	-23.4	46	297	9.1
400	31	7,304	-29.7	47	300	9.9
350	31	8,241	-37.3	46	298	9.9
300	31	9,287	-45.6		308	9.5
250	31	10,480	-52.8		306	8.9
200	31	11,913	-53.8		307	8.2
175	31	12,776	-51.3		302	5.2
150	31	13,781	-50.0		320	5.1
125	31	14,972	-50.1		301	3.1
100	31	16,433	-49.3		341	1.4
80	31	17,899	-48.4		65	2.7
70	31	18,778	-47.9		63	4.1
60	30	19,796	-47.3		71	6.2
50	30	21,003	-46.8		84	8.2
40	30	22,483	-46.5		93	8.5
30	29	24,400	-45.1		84	11.5
25	28	25,619	-43.5		88	12.6
20	26	27,126	-41.2		83	14.2
15	21	29,101	-37.4		92	18.3
10	16	31,935	-32.2		85	23.1
7	6	34,466	-28.8			
5						

FLINT, MICH.
989 MB

Standard pressure surface (mb)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind Direction	Wind Speed
SURFACE	31	234	15.5	87	257	1.0
1000	31	137				
950	31	577	17.1	66	274	2.3
900	31	1,035	14.4	65	284	5.1
850	31	1,517	11.4	67	289	7.2
800	31	2,022	8.7	60	289	10.1
750	31	2,554	6.1	55	286	12.4
700	31	3,116	3.6	46	285	16.1
650	31	3,713	.4	40	287	19.6
600	31	4,353	- 3.0	36	289	22.3
550	31	5,032	- 7.3	31	291	23.7
500	31	5,773	-12.1		290	28.4
450	31	6,566	-17.5		290	32.3
400	31	7,443	-23.7		292	36.9
350	31	8,404	-31.0		293	41.2
300	31	9,479	-38.7		295	45.9
250	31	10,710	-46.5		299	57.9
200	31	12,166	-53.0		299	66.5
175	31	13,022	-55.8		297	61.6
150	31	13,998	-57.7		294	50.1
125	31	15,142	-59.9		292	34.6
100	31	16,534	-59.5		296	23.1
80	31	17,936	-57.9		312	11.3
70	31	18,785	-56.6		339	5.6
60	31	19,763	-54.6		50	5.1
50	31	20,937	-52.3		82	9.1
40	31	22,387	-50.7		88	13.4
30	30	24,270	-48.2		89	16.7
25	27	25,475	-46.2		88	18.8
20	23	26,966	-44.0		92	19.8
15	9	28,916	-41.1			
10						
7						
5						

FORT WORTH, TEXAS
995 MB

Standard pressure surface (mb)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind Direction	Wind Speed
SURFACE	31	180	24.2	82	184	3.3
1000	31	133				
950	31	587	24.7	68	206	18.5
900	31	1,059	23.4	60	208	18.3
850	31	1,557	20.5	57	210	11.9
800	31	2,078	17.2	54	219	7.4
750	31	2,624	13.4	55	237	4.7
700	31	3,204	9.6	53	235	3.9
650	31	3,811	5.4	54	227	4.7
600	31	4,465	1.2	54	225	4.3
550	31	5,155	- 2.9	49	234	5.1
500	31	5,909	- 7.1	44	239	6.8
450	31	6,720	-11.8	37	248	7.0
400	30	7,617	-17.6		264	6.4
350	30	8,603	-24.5		254	5.6
300	30	9,708	-32.6		253	4.7
250	30	10,967	-42.4		243	4.1
200	30	12,437	-54.3		236	5.6
175	30	13,281	-60.5		244	6.6
150	30	14,226	-66.8		238	5.6
125	30	15,315	-70.8		216	2.9
100	29	16,637	-70.3		61	6.0
80	29	17,970	-67.5		80	14.0
70	29	18,790	-63.5		89	15.5
60	29	19,735	-60.3		88	17.9
50	28	20,879	-56.9		89	21.8
40	28	22,301	-53.8		93	24.3
30	28	24,162	-50.8		87	25.6
25	27	25,354	-49.1		88	27.6
20	26	26,826	-46.2		89	29.9
15	23	28,740	-43.6		88	31.3
10	7	31,490	-39.6			
7						
5						

GLASGOW, MONT.
935 MB

Standard pressure surface (mb)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind Direction	Wind Speed
SURFACE	31	696	13.7	83	42	1.4
1000	31	125				
950	31	565				
900	31	1,024	16.2	63	251	.6
850	31	1,509	14.1	55	295	3.9
800	31	2,019	11.1	54	296	7.0
750	31	2,549	7.3	53	294	11.9
700	31	3,118	3.6	50	295	16.3
650	31	3,710	- .4	51	290	19.8
600	31	4,352	- 4.4	50	280	23.1
550	31	5,025	- 8.6	47	277	25.5
500	31	5,764	-13.5	41	273	28.2
450	31	6,550	-18.9	34	270	30.3
400	31	7,425	-25.2	33	270	34.2
350	31	8,380	-32.5		271	37.1
300	31	9,447	-40.9		268	45.1
250	31	10,662	-50.1		267	45.1
200	31	12,095	-55.7		266	49.0
175	31	12,948	-54.0		267	49.7
150	31	13,937	-54.1		262	38.3
125	31	15,103	-55.5		273	28.0
100	31	16,521	-56.1		282	18.8
80	31	17,939	-55.8		288	6.6
70	31	18,792	-54.5		342	1.2
60	31	19,779	-53.5		70	4.1
50	29	20,960	-51.9		91	9.1
40	29	22,411	-50.4		87	11.3
30	27	24,300	-47.9		84	13.2
25	26	25,510	-46.3		77	15.7
20	24	27,000	-44.0		86	17.3
15	17	28,963	-40.6		82	17.7
10	6	31,766	-35.3			
7						
5						

GRAND JUNCTION, COLO.
853 MB

Standard pressure surface (mb)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind Direction	Wind Speed
SURFACE	31	1,474	18.9	38	129	4.7
1000	31	83				
950	31	531				
900	31	1,009				
850	31	1,509	19.4	37	126	4.9
800	31	2,032	19.4	33	146	8.2
750	31	2,580	16.4	33	193	3.7
700	31	3,166	11.9	36	246	6.6
650	31	3,775	6.7	42	252	8.4
600	31	4,431	1.0	51	252	11.1
550	31	5,115	- 4.9	55	249	12.4
500	31	5,865	-10.4	51	247	14.0
450	31	6,665	-15.4	35	253	17.3
400	31	7,549	-21.5		252	20.6
350	31	8,520	-28.4		248	28.8
300	31	9,607	-36.3		246	39.6
250	31	10,848	-45.0		243	49.5
200	31	12,308	-54.0		244	54.8
175	31	13,156	-58.7		247	50.5
150	30	14,114	-62.3		246	40.2
125	29	15,229	-65.4		247	26.4
100	29	16,581	-65.8		239	13.2
80	29	17,942	-63.3		188	2.1
70	29	18,772	-61.2		101	4.5
60	29	19,730	-58.4		92	9.7
50	29	20,883	-56.0		90	13.8
40	29	22,311	-53.3		89	17.3
30	28	24,173	-50.5		87	20.2
25	28	25,367	-48.5		89	20.4
20	27	26,844	-46.4		87	22.9
15	26	28,768	-43.2		86	25.1
10	23	31,544	-37.2		90	29.7
7	21	34,038	-33.5		90	32.8
5	11	36,389	-30.4			

See reference note at end of table

RAWINSONDE DATA

Average monthly values

JULY 1962

GREAT FALLS, MONT.
890 MB

Standard pressure surface (mb.)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind	
					Direction	Speed
SURFACE	31	1,123	11.5	70	244	3.9
1000	31	133				
950	31	572				
900	31	1,034				
850	31	1,513	13.8	51	258	2.3
800	31	2,021	10.9	51	277	3.5
750	31	2,550	7.4	52	259	6.4
700	31	3,120	3.4	57	262	9.3
650	31	3,710	- .9	58	257	15.9
600	31	4,351	- 5.2	50	255	21.6
550	31	5,020	- 9.8	44	262	24.3
500	31	5,759	-14.5	37	261	26.8
450	31	6,543	-19.9	34	259	29.3
400	31	7,413	-26.4	39	255	32.6
350	31	8,364	-33.6		254	35.6
300	31	9,428	-41.9		252	39.8
250	31	10,639	-50.9		249	43.1
200	31	12,074	-54.6		250	44.9
175	30	12,934	-53.1		251	42.0
150	30	13,927	-54.2		255	35.4
125	30	15,091	-56.0		256	27.4
100	30	16,508	-57.0		263	17.7
80	30	17,921	-56.4		250	6.2
70	30	18,774	-55.3		267	2.1
60	30	19,756	-54.2		71	3.9
50	29	20,925	-53.0		87	7.4
40	28	22,371	-50.8		86	10.5
30	28	24,252	-48.9		[illegible]	14.8
25	28	25,454	-46.9		90	16.3
20	28	26,940	-44.6		88	18.5
15	25	28,882	-40.8		90	22.2
10	23	31,663	-35.9		86	27.2
7	20	34,152	-31.9		94	28.2
5	9	36,578	-26.2			

GREEN BAY, WIS.
990 MB

Standard pressure surface (mb.)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind	
					Direction	Speed
SURFACE	31	210	14.6	90	314	1.4
1000	31	127				
950	31	565	16.1	73	282	3.7
900	31	1,023	14.1	70	291	4.7
850	31	1,504	11.3	69	300	5.8
800	31	2,009	8.3	67	303	8.0
750	31	2,537	5.7	61	304	10.7
700	31	3,102	2.9	53	301	13.6
650	31	3,693	- .3	52	297	17.9
600	31	4,336	- 3.8	44	299	22.0
550	31	5,012	- 7.7	37	300	24.3
500	31	5,754	-12.2		295	26.6
450	31	6,542	-17.6		291	30.7
400	31	7,423	-23.7		290	33.4
350	31	8,384	-30.6		292	40.0
300	31	9,462	-38.4		290	46.2
250	31	10,693	-46.8		289	58.3
200	31	12,151	-53.0		288	67.2
175	31	13,008	-55.4		290	63.0
150	31	13,986	-57.3		295	55.6
125	31	15,137	-58.4		290	36.5
100	31	16,538	-59.0		292	23.5
80	31	17,941	-57.8		306	12.8
70	31	18,786	-56.6		345	6.0
60	31	19,766	-54.8		46	6.2
50	31	20,937	-52.9		70	8.9
40	31	22,384	-50.6		79	10.9
30	31	24,267	-48.5		84	15.3
25	25	25,474	-47.0		82	17.7
20	18	26,964	-44.5		90	19.8

GREENSBORO, N. C.
985 MB

Standard pressure surface (mb.)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind	
					Direction	Speed
SURFACE	31	273	19.3	93	11	1.9
1000	31	139				
950	31	583	21.0	72	294	4.1
900	31	1,052	19.0	67	299	6.8
850	31	1,541	16.0	66	290	9.7
800	31	2,055	13.3	62	278	12.6
750	31	2,593	10.2	55	280	14.8
700	31	3,167	7.3	47	282	17.1
650	31	3,773	4.0	42	284	18.5
600	31	4,421	.3	39	283	19.2
550	31	5,109	- 3.1		283	22.2
500	31	5,863	- 7.7		283	22.7
450	31	6,673	-12.7		281	25.1
400	31	7,566	-18.3		286	26.2
350	31	8,550	-25.4		292	29.9
300	31	9,650	-33.7		294	34.8
250	31	10,904	-43.5		297	39.1
200	31	12,370	-54.5		302	42.7
175	31	13,214	-60.3		303	43.7
150	31	14,164	-65.3		301	38.3
125	31	15,267	-68.0		301	28.2
100	31	16,606	-67.5		298	15.2
80	31	17,963	-64.0		5	7.0
70	31	18,795	-61.3		55	8.4
60	31	19,751	-58.6		74	11.3
50	31	20,905	-55.7		87	18.7
40	31	22,338	-52.6		90	19.8
30	30	24,209	-49.7		89	23.9
25	29	25,407	-47.5		87	24.9
20	23	26,892	-45.1		90	26.6
15	6	28,833	-43.3			

GUAM, MARIANA IS.
997 MB

Standard pressure surface (mb.)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind	
					Direction	Speed
SURFACE	31	111	25.0	93	90	2.1
1000	31	80				
950	31	534	23.7	80	98	8.2
900	31	1,005	21.1	79	104	9.1
850	31	1,499	18.6	77	104	9.3
800	31	2,019	15.9	73	103	9.3
750	31	2,564	12.9	72	99	10.7
700	31	3,144	9.7	69	99	12.2
650	31	3,755	6.4	65	97	12.2
600	31	4,410	2.6	64	97	11.1
550	31	5,107	- 1.5	65	94	9.1
500	31	5,864	- 5.6	58	90	9.1
450	31	6,679	-10.4	57	83	8.2
400	31	7,583	-15.9	55	75	7.0
350	31	8,576	-22.6	52	88	5.8
300	31	9,690	-30.8	44	100	2.7
250	31	10,956	-41.1		80	1.7
200	31	12,432	-53.8		10	4.3
175	31	13,276	-61.0		340	4.1
150	31	14,216	-68.7		351	7.4
125	31	15,285	-76.5		17	10.3
100	28	16,554	-79.2		67	13.6
80	24	17,844	-72.7		84	22.2
70	24	18,633	-69.4		85	25.5
60	24	19,562	-65.8		85	27.2
50	24	20,680	-62.0		85	30.9
40	24	22,073	-58.0		86	38.1
30	23	23,904	-54.6		87	49.2
25	22	25,081	-51.9		86	58.3
20	18	26,543	-49.1		89	60.8
15	[illegible]	28,441	-47.4			

HILO, HAWAII
1016 MB

Standard pressure surface (mb.)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind	
					Direction	Speed
SURFACE	31	11	20.7	88	254	4.3
1000	31	149	21.9	81	272	2.3
950	31	593	19.0	83	65	3.7
900	31	1,056	16.0	84	81	7.6
850	31	1,540	13.0	86	83	8.0
800	31	2,048	10.6	79	86	9.1
750	31	2,589	8.9	51	89	10.7
700	31	3,154	7.4		91	10.1
650	31	3,764	5.6		93	7.8
600	31	4,413	2.7		94	6.0
550	31	5,107	- 1.5		104	4.9
500	31	5,864	- 6.3		164	3.3
450	31	6,676	-12.0		209	4.9
400	31	7,570	-18.5		233	7.8
350	31	8,551	-26.2		242	12.8
300	31	9,647	-35.0		245	18.1
250	31	10,891	-45.2		262	24.1
200	30	12,341	-56.6		270	30.9
175	30	13,178	-62.1		269	30.5
150	29	14,120	-66.6		258	27.4
125	27	15,211	-70.7		241	20.2
100	26	16,532	-72.4		170	6.8
80	26	17,853	-69.7		101	16.1
70	25	18,650	-67.4		95	22.2
60	25	19,586	-64.2		92	25.5
50	24	20,712	-60.4		88	33.0
40	24	22,115	-57.0		90	42.6
30	24	23,956	-53.1		88	41.8
25	24	25,136	-51.3		90	45.3
20	24	26,593	-49.2		91	48.4
15	22	28,496	-46.9		92	51.3
10	20	31,212	-41.9		90	53.8
7	17	33,641	-39.7		90	60.0
5	6	35,979	-36.5			

HUNTINGTON, W. VA.
987 MB

Standard pressure surface (mb.)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind	
					Direction	Speed
SURFACE	31	246	18.2	91	201	2.1
1000	31	136				
950	31	585	20.0	75	262	4.7
900	31	1,045	17.5	71	287	8.2
850	31	1,532	14.6	68	283	10.5
800	31	2,043	12.2	60	286	14.0
750	31	2,583	9.5	49	284	16.9
700	31	3,152	6.5	45	289	17.7
650	31	3,753	3.3	41	287	19.8
600	31	4,402	- .4	42	286	22.3
550	31	5,087	- 4.1		285	24.9
500	31	5,839	- 8.6		285	26.4
450	31	6,643	-13.6		288	27.8
400	31	7,534	-19.6		288	31.5
350	31	8,513	-26.7		287	35.2
300	31	9,608	-34.8		291	39.6
250	31	10,856	-44.3		294	46.6
200	31	12,319	-54.7		297	51.3
175	31	13,165	-59.3		300	46.8
150	31	14,121	-63.3		301	40.2
125	31	15,235	-65.8		298	29.0
100	30	16,591	-64.8		297	19.0
80	30	17,964	-61.9		331	8.5
70	30	18,799	-59.5		25	6.2
60	30	19,768	-56.7		71	8.4
50	30	20,934	-54.1		80	10.5
40	29	22,373	-52.0		84	15.5
30	28	24,251	-49.2		85	18.1
25	26	25,451	-47.3		88	20.0
20	25	26,934	-45.0		87	22.2
15	14	28,863	-40.5		90	24.5

INTERNAT. FALLS, MINN.
973 MB

Standard pressure surface (mb.)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind	
					Direction	Speed
SURFACE	31	360	12.3	87	203	.8
1000	31	125				
950	31	556	15.3	75	236	3.5
900	31	1,016	13.3	68	260	4.7
850	31	1,495	10.3	66	273	6.0
800	31	1,997	7.1	65	284	8.4
750	31	2,519	4.1	61	290	9.9
700	31	3,084	1.0	54	290	12.6
650	31	3,671	- 2.2	51	294	14.6
600	31	4,308	- 5.6	45	286	17.7
550	31	4,975	- 9.7	42	286	19.8
500	31	5,716	-14.4	41	285	23.5
450	31	6,500	-19.7	38	284	26.2
400	31	7,372	-25.8	36	283	29.7
350	31	8,327	-32.8		281	34.2
300	31	9,394	-41.0		282	40.8
250	31	10,612	-49.0		280	50.3
200	31	12,060	-53.3		276	57.3
175	31	12,921	-53.0		280	55.0
150	31	13,914	-53.7		286	44.1
125	31	15,082	-55.3		288	29.9
100	30	16,504	-55.5		293	18.8
80	30	17,931	-54.0		300	11.1
70	30	18,790	-53.3		306	7.0
60	30	19,784	-52.4		357	3.5
50	30	20,965	-51.3		73	6.8
40	30	22,419	-49.6		82	10.1
30	30	24,312	-47.7		87	12.4
25	29	25,515	-46.6		85	13.8
20	28	27,002	-44.3		86	15.9
15	25	28,946	-41.0		[illegible]	20.2
10	24	31,730	-36.4		92	25.5
7	15	34,213	-32.1		84	29.1
5	6	36,574	-27.4			

JACKSON, MISS.
1005 MB

Standard pressure surface (mb.)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind	
					Direction	Speed
SURFACE	31	94	23.6	87	229	1.0
1000	31	142	24.0	84	238	2.1
950	31	593	24.8	68	262	7.4
900	31	1,067	21.9	68	262	7.8
850	31	1,562	18.6	67	266	6.2
800	31	2,079	15.5	61	267	5.4
750	31	2,618	12.1	58	275	5.6
700	31	3,199	8.6	53	287	5.8
650	31	3,803	5.0	47	317	4.9
600	31	4,457	1.2	45	309	5.8
550	31	5,146	- 2.4	42	310	6.6
500	31	5,904	- 6.6	36	303	7.6
450	31	6,714	-11.2		300	8.5
400	31	7,615	-16.8		301	9.1
350	31	8,604	-23.7		306	9.1
300	31	9,712	-32.0		313	8.9
250	31	10,973	-42.2		301	7.2
200	31	12,445	-54.1		299	9.3
175	31	13,289	-60.6		306	8.9
150	31	14,235	-67.0		331	9.3
125	31	15,323	-71.2		341	7.6
100	31	16,642	-70.8		41	7.8
80	31	17,977	-66.6		66	12.0
70	31	18,795	-63.5		80	15.5
60	31	19,745	-60.1		87	18.3
50	31	20,892	-56.6		89	21.0
40	31	22,316	-53.7		90	24.1
30	31	24,178	-50.3		88	26.8
25	31	25,372	-48.4		89	29.1
20	30	26,848	-46.1		90	31.3
15	21	28,783	-43.4		75	37.9

JACKSONVILLE, FLA.
1017 MB

Standard pressure surface (mb.)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind	
					Direction	Speed
SURFACE	31	5	23.9	93	265	2.7
1000	31	149	24.3	86	254	5.6
950	31	599	23.2	74	261	7.8
900	31	1,070	20.5	72	259	6.4
850	31	1,563	17.6	71	260	6.4
800	31	2,079	14.5	68	267	5.8
750	31	2,621	11.3	63	269	6.8
700	31	3,197	8.4	56	276	6.8
650	31	3,803	5.0	55	293	7.0
600	31	4,456	1.6	51	302	7.6
550	31	5,149	- 2.0	49	291	7.6
500	31	5,906	- 6.2	40	297	7.4
450	31	6,719	-11.3	35	313	10.1
400	31	7,619	-16.9	35	319	10.7
350	31	8,608	-23.9	31	325	9.7
300	31	9,715	-32.4		331	9.7
250	31	10,973	-43.0		348	12.2
200	31	12,440	-54.8		353	15.9
175	30	13,282	-61.3		357	17.7
150	30	14,225	-67.2		354	18.1
125	30	15,312	-71.3		15	14.4
100	30	16,630	-70.7		43	8.7
80	30	17,965	-66.2		65	13.2
70	29	18,786	-63.4		73	18.8
60	29	19,733	-59.8		86	22.7
50	29	20,882	-55.9		93	27.4
40	27	22,310	-52.7		96	26.4
30	27	24,181	-48.9		89	28.8
25	27	25,383	-46.9		91	29.0
20	26	26,864	-45.0		88	31.3
15	23	28,780	-42.7		89	35.9
10	21	31,549	-37.7		90	40.6
7	5	34,072	-32.8			

KING SALMON, ALASKA
1016 MB

Standard pressure surface (mb.)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind	
					Direction	Speed
SURFACE	31	15	10.1	81	188	3.7
1000	31	145	11.1	86		
950	31	571	10.6	77		
900	31	1,025	8.5	74		
850	31	1,496	5.9	73	134	4.5
800	31	1,990	3.1	72	136	7.4
750	31	2,506	.2	67	141	6.8
700	31	3,063	- 2.4	61	145	6.4
650	31	3,643	- 5.3	54	140	6.8
600	31	4,273	- 9.0	54	139	7.6
550	31	4,932	-13.2	55	133	6.0
500	31	5,662	-17.9	49	128	7.0
450	31	6,432	-23.3	43	144	7.4
400	31	7,294	-29.6	42	138	4.7
350	31	8,232	-36.8		115	2.7
300	31	9,281	-44.9		126	3.1
250	31	10,479	-51.9		159	.6
200	31	11,919	-52.5		264	6.2
175	31	12,786	-50.3		270	4.7
150	31	13,793	-49.9		271	4.7
125	31	14,984	-50.3		267	5.6
100	30	16,438	-50.2		304	4.1
80	29	17,898	-49.6		344	3.5
70	29	18,769	-49.4		9	2.1
60	29	19,784	-49.2		98	2.1
50	28	20,983	-48.9			
40	26	22,452	-48.0			
30	26	24,355	-46.8			
25	25	25,568	-45.1			
20	21	27,059	-43.1			
15	16	29,013	-39.7			

KOTZEBUE, ALASKA
1015 MB

Standard pressure surface (mb.)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind	
					Direction	Speed
SURFACE	31	5	12.2	86	281	4.5
1000	31	129	11.9	82	270	5.1
950	31	553	10.1	74	257	6.4
900	31	1,006	8.0	70	243	8.7
850	31	1,476	5.8	67	236	9.3
800	31	1,970	3.3	59	238	10.7
750	31	2,483	.7	61	239	12.2
700	31	3,042	- 2.1	58	243	13.6
650	31	3,619	- 5.3	57	245	14.4
600	31	4,252	- 8.8	55	250	15.3
550	31	4,911	-12.9	51	250	16.3
500	31	5,642	-17.6	50	251	17.9
450	31	6,409	-22.9	45	258	18.3
400	31	7,275	-29.3	44	259	18.7
350	31	8,216	-36.4		264	20.2
300	31	9,266	-44.1		268	21.2
250	31	10,468	-51.7		272	20.8
200	31	11,902	-53.8		269	16.7
175	31	12,765	-51.1		269	13.8
150	31	13,770	-50.0		270	11.7
125	31	14,963	-49.7		260	7.4
100	31	16,424	-49.2		266	5.1
80	30	17,890	-48.4		301	1.0
70	30	18,769	-47.8		38	.8
60	30	19,787	-47.3		76	2.7
50	29	20,995	-46.7		[illegible]	4.9
40	29	22,477	-45.9		85	6.0
30	29	24,395	-44.7		82	8.4
25	27	25,619	-43.3		86	9.5
20	26	27,126	-41.5		75	12.2
15	26	29,090	-38.5		84	14.8
10	15	31,895	-34.9		90	15.7
7						

LAKE CHARLES, LA.
1017 MB

Standard pressure surface (mb.)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind	
					Direction	Speed
SURFACE	27	5	24.2	97	290	1.4
1000	27	150	26.0	86	257	6.4
950	27	602	24.1	77	233	10.5
900	27	1,076	21.6	70	211	9.1
850	27	1,570	18.6	66	194	8.4
800	27	2,088	15.6	58	196	6.8
750	27	2,631	12.6	51	196	4.1
700	27	3,210	9.2	50	176	1.0
650	27	3,819	5.6	49		.0
600	27	4,472	1.7	47	3	1.7
550	27	5,164	- 2.4	45	334	1.0
500	27	5,920	- 6.6	37	20	1.0
450	27	6,733	-11.3	27	35	2.3
400	27	7,631	-17.3		53	3.1
350	27	8,619	-24.2		60	4.1
300	27	9,725	-32.5		80	4.9
250	27	10,985	-42.3		104	4.3
200	27	12,456	-54.0		124	6.4
175	27	13,301	-60.6		120	6.0
150	27	14,245	-67.3		86	4.9
125	27	15,330	-72.4		88	8.5
100	27	16,642	-71.8		64	13.4
80	27	17,968	-68.0		81	16.3
70	27	18,789	-64.9		85	19.6
60	27	19,728	-60.7		86	21.4
50	27	20,872	-57.6		87	25.3
40	26	22,292	-54.5		89	28.6
30	25	24,155	-50.6		90	31.5
25	24	25,352	-48.7		89	34.8
20	23	26,828	-46.7		87	36.7
15	12	28,753	-43.3			

LANDER, WYO.
832 MB

Standard pressure surface (mb.)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind	
					Direction	Speed
SURFACE	31	1,696	13.7	56	260	3.7
1000	31	108				
950	31	551				
900	31	1,018				
850	31	1,510				
800	31	2,026	15.8	40	274	2.5
750	31	2,570	13.2	38	238	2.9
700	31	3,148	9.3	38	256	7.0
650	31	3,752	4.7	40	259	12.6
600	31	4,404	- .6	46	263	17.5
550	31	5,080	- 6.2	49	263	20.0
500	31	5,832	-11.8	47	261	21.8
450	31	6,625	-17.3	36	261	22.7
400	31	7,504	-23.7		258	24.9
350	31	8,467	-30.8		257	30.3
300	30	9,542	-39.2		253	39.1
250	30	10,769	-47.7		251	49.4
200	30	12,221	-53.7		250	56.9
175	30	13,075	-55.9		249	52.8
150	30	14,050	-58.5		252	45.1
125	30	15,189	-61.2		256	31.7
100	30	16,572	-62.3		257	19.8
80	30	17,955	-60.5		253	7.0
70	30	18,791	-58.3		223	1.7
60	30	19,766	-56.5		94	4.7
50	30	20,930	-54.2		82	8.5
40	30	22,369	-52.0		86	13.8
30	30	24,242	-49.6		86	17.5
25	29	25,442	-47.8		85	19.4
20	26	26,917	-45.5		89	20.6
15	16	28,856	-42.1		88	20.0

LAS VEGAS, NEV.
936 MB

Standard pressure surface (mb.)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind	
					Direction	Speed
SURFACE	31	660	25.7	20	228	6.0
1000	31	69				
950	31	525				
900	31	1,006	27.6	20	235	7.0
850	31	1,509	24.5	22	235	8.0
800	31	2,035	20.4	25	217	9.1
750	31	2,586	15.9	29	205	9.3
700	31	3,168	10.9	33	192	9.5
650	31	3,773	5.6	38	188	11.3
600	31	4,429	.8	37	189	11.7
550	31	5,113	- 3.6		213	10.1
500	31	5,869	- 8.7		238	12.2
450	31	6,671	-14.4		248	15.9
400	31	7,560	-20.8		252	20.4
350	31	8,533	-27.9		247	23.9
300	31	9,622	-36.1		243	30.9
250	31	10,865	-44.7		237	37.7
200	31	12,328	-53.7		235	41.0
175	30	13,179	-58.3		237	38.1
150	30	14,139	-62.7		240	33.8
125	30	15,252	-65.9		243	21.4
100	30	16,600	-67.1		219	9.3
80	30	17,953	-64.8		131	5.2
70	30	18,780	-62.3		104	7.8
60	30	19,730	-59.8		93	11.5
50	30	20,879	-56.6		88	15.5
40	29	22,304	-53.9		86	20.0
30	29	24,164	-50.7		88	22.0
25	27	25,353	-49.1		89	22.7
20	26	26,823	-46.9		86	27.6
15	18	28,739	-43.4			

LIHUE, HAWAII
1014 MB

Standard pressure surface (mb.)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind	
					Direction	Speed
SURFACE	31	36	24.0	76	59	10.5
1000	31	154	23.2	77	62	13.0
950	31	601	19.9	80	70	16.9
900	31	1,065	16.4	83	72	17.3
850	31	1,550	13.1	83	72	15.9
800	31	2,059	10.6	73	76	15.0
750	31	2,596	8.9	51	86	14.0
700	31	3,164	6.5	27	90	11.5
650	31	3,766	4.4		90	8.2
600	31	4,418	1.4		96	5.4
550	31	5,107	- 2.4		106	3.1
500	31	5,864	- 7.6		220	.6
450	31	6,670	-13.5		246	3.7
400	31	7,561	-20.0		264	8.4
350	31	8,537	-27.3		270	11.5
300	31	9,627	-35.9		268	18.1
250	31	10,868	-45.7		270	26.4
200	30	12,316	-57.0		271	34.6
175	28	13,150	-62.6		271	37.5
150	27	14,089	-66.5		271	32.4
125	27	15,189	-67.9		255	22.5
100	27	16,523	-70.0		224	9.1
80	24	17,859	-68.0		106	12.6
70	23	18,665	-66.0		95	19.2
60	23	19,607	-62.9		89	25.3
50	23	20,739	-59.6		89	29.0
40	21	22,147	-56.7		90	34.2
30	21	23,987	-53.0		89	42.4
25	21	25,168	-51.1		89	42.9
20	20	26,625	-49.2		91	44.3
15	19	28,530	-46.5		92	48.2
10	16	31,248	-42.7		91	52.8
7	6	33,635	-41.1			

See reference note at end of table

RAWINSONDE DATA

Average monthly values

JULY 1962

LITTLE ROCK, ARK.
1006 MB

Standard pressure surface (mb)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind	
					Direction	Speed
SURFACE	31	79	22.6	89	252	1.7
1000	31	136	23.4	85	256	1.7
950	31	587	24.3	65	246	6.2
900	31	1,059	21.8	61	255	9.9
850	31	1,554	19.1	56	253	10.9
800	31	2,073	15.6	54	251	9.5
750	31	2,611	12.2	51	259	9.3
700	31	3,194	8.6	50	276	8.9
650	31	3,799	4.9	47	278	9.7
600	31	4,453	1.1	45	279	9.9
550	31	5,139	- 2.9	46	282	11.7
500	31	5,899	- 7.0	35	282	11.5
450	31	6,709	-11.8		282	11.5
400	31	7,609	-17.5		287	14.0
350	31	8,596	-24.1		291	15.0
300	31	9,702	-32.2		297	16.3
250	31	10,962	-42.2		295	21.0
200	31	12,434	-54.2		291	23.5
175	31	13,277	-60.5		292	22.3
150	31	14,223	-66.6		299	15.7
125	31	15,314	-68.6		300	11.3
100	31	16,641	-69.4		6	6.4
80	31	17,982	-66.4		59	9.7
70	31	18,803	-63.0		78	13.4
60	31	19,754	-59.5		87	13.6
50	31	20,903	-56.7		92	19.4
40	29	22,330	-53.4		91	22.2
30	28	24,195	-50.4		91	24.1
25	27	25,389	-48.7		89	26.2
20	26	26,864	-45.9		91	29.0
15	22	28,798	-43.5		88	29.5
10	11	31,560	-39.6			
7						
5						

MCGRATH, ALASKA
1005 MB

Standard pressure surface (mb)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind	
					Direction	Speed
SURFACE	26	103	13.3	79	248	1.2
1000	26	145	14.0	75	231	1.0
950	26	583	14.3	58	251	2.7
900	26	1,034	11.5	60	269	2.9
850	26	1,510	8.2	65	264	3.1
800	26	2,008	4.8	70	238	2.9
750	26	2,527	1.5	69	271	2.1
700	26	3,085	- 1.7	67	274	1.7
650	26	3,667	- 5.2	66	281	2.5
600	26	4,296	- 8.8	55	263	1.7
550	26	4,958	-12.7	49	292	1.4
500	26	5,687	-17.7	48	254	2.5
450	26	6,456	-23.7	48	319	2.5
400	24	7,304	-30.0	47	260	2.5
350	24	8,240	-37.3		351	3.7
300	24	9,287	-45.4		9	7.2
250	24	10,480	-53.5		15	8.4
200	23	11,910	-53.9		5	7.2
175	23	12,773	-50.9		4	6.4
150	23	13,778	-50.2		349	4.3
125	23	14,968	-50.1		6	3.1
100	23	16,426	-50.0		12	2.3
80	23	17,887	-49.1		70	3.1
70	23	18,766	-48.6		77	3.3
60	23	19,779	-48.1		88	6.0
50	23	20,982	-47.5		87	7.2
40	23	22,459	-46.8		86	9.5
30	22	24,369	-45.8		87	11.9
25	21	25,590	-44.0		86	12.4
20	20	27,100	-41.6		86	16.1
15	19	29,071	-38.3		87	19.2
10	6	31,839	-35.4			
7						
5						

MAJURO, MARSHALL IS.
1010 MB

Standard pressure surface (mb)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind	
					Direction	Speed
SURFACE	30	3	26.8	84	82	7.6
1000	30	89	26.2	83	86	9.3
950	30	535	23.3	82	89	14.0
900	30	1,012	20.5	81	89	15.7
850	30	1,506	17.9	80	90	16.3
800	30	2,024	15.6	73	88	17.3
750	30	2,572	12.7	70	91	17.9
700	30	3,149	9.6	70	93	17.3
650	30	3,761	6.2	70	91	15.3
600	30	4,414	2.6	72	91	15.0
550	30	5,109	- 1.3	71	89	13.6
500	29	5,870	- 5.4	67	95	10.7
450	29	6,688	-10.2	59	92	8.2
400	29	7,589	-15.7	52	93	6.8
350	29	8,582	-22.7	51	90	6.4
300	29	9,695	-31.1	41	61	5.2
250	29	10,960	-41.5		57	4.1
200	29	12,434	-54.1		350	2.7
175	29	13,277	-61.2		318	5.6
150	29	14,216	-68.8		299	9.5
125	29	15,286	-76.3		278	9.5
100	28	16,559	-78.8		206	.6
80	28	17,853	-72.2		82	3.1
70	27	18,644	-69.2		79	4.5
60	27	19,571	-65.6		79	9.5
50	27	20,688	-62.5		84	16.1
40	25	22,074	-59.7		86	35.2
30	25	23,887	-55.8		88	56.3
25	25	25,053	-53.7		89	62.8
20	25	26,496	-50.9		88	68.2
15	23	28,385	-47.5		89	76.6
10	20	31,099	-42.8		91	68.8
7	16	33,534	-38.9		88	55.6
5	7	35,844	-36.8			

MEDFORD, OREG.
971 MB

Standard pressure surface (mb)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind	
					Direction	Speed
SURFACE	31	401	12.4	69	255	1.0
1000	31	151				
950	31	589	16.2	55	288	2.5
900	31	1,046	15.4	53	307	1.9
850	31	1,530	13.7	49	357	2.1
800	31	2,039	12.3	37	3	2.5
750	31	2,575	9.6	29	276	3.7
700	31	3,147	5.9	30	244	6.4
650	31	3,745	2.0		248	9.3
600	31	4,390	- 2.5		251	10.9
550	31	5,069	- 7.4		256	12.2
500	31	5,810	-12.8		261	14.4
450	31	6,602	-18.6		265	19.2
400	31	7,474	-25.4		262	23.5
350	31	8,428	-33.0		263	27.0
300	31	9,494	-41.4		263	30.9
250	31	10,708	-50.3		261	33.0
200	31	12,143	-55.6		256	35.8
175	30	12,997	-55.1		250	33.8
150	29	13,986	-56.3		254	28.4
125	29	15,137	-58.8		250	22.9
100	29	16,535	-60.0		252	12.2
80	29	17,929	-59.2		207	3.9
70	28	18,773	-57.8		104	3.7
60	28	19,745	-56.6		91	7.6
50	28	20,904	-55.2		87	9.3
40	28	22,336	-52.8		87	12.8
30	28	24,201	-50.5		89	15.2
25	28	25,394	-48.6		86	18.5
20	27	26,872	-46.1		86	20.2
15	27	28,799	-42.7		88	23.3
10	25	31,563	-37.7		93	27.4
7	24	34,040	-34.2		87	31.3
5	18	36,407	-30.4			

MERIDA, MEXICO
1015 MB

Standard pressure surface (mb)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind	
					Direction	Speed
SURFACE	31	11	23.1	96	104	5.8
1000	31	139	23.9	89	107	9.7
950	31	583	22.9	76	120	15.9
900	31	1,060	20.7	67	121	15.5
850	31	1,554	18.2	57	111	14.0
800	31	2,072	15.5	48	109	13.4
750	31	2,600	12.3	45	110	13.4
700	31	3,193	8.9	44	110	12.8
650	31	3,785	4.9	43	108	11.9
600	31	4,452	1.1	39	98	12.2
550	31	5,129	- 2.9	37	89	11.9
500	30	5,897	- 7.2	33	84	15.3
450	30	6,701	-12.3	32	80	15.0
400	30	7,605	-18.1	27	81	15.7
350	30	8,589	-24.9		75	14.8
300	30	9,691	-33.2		77	14.2
250	30	10,946	-43.2		68	11.7
200	30	12,411	-54.7		64	11.9
175	30	13,252	-61.1		66	12.4
150	30	14,195	-67.0		77	14.0
125	30	15,285	-71.2		72	19.6
100	29	16,598	-72.5		79	22.2
80	29	17,914	-70.1		87	25.1
70	29	18,715	-66.5		88	26.4
60	29	19,656	-62.7		87	30.3
50	29	20,789	-58.7		90	38.3
40	28	22,206	-55.0		96	37.7
30	25	24,060	-51.0		90	41.0
25	20	25,260	-49.6		87	49.4
20	11	26,739	-47.1			
15						
10						
7						
5						

MIAMI, FLA.
1017 MB

Standard pressure surface (mb)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind	
					Direction	Speed
SURFACE	31	4	25.5	87	152	1.2
1000	31	153	26.4	78	153	2.9
950	31	603	23.3	78	172	5.1
900	31	1,076	20.3	73	171	4.3
850	31	1,569	17.4	66	168	3.5
800	31	2,085	14.6	58	192	3.9
750	31	2,625	11.5	52	206	4.1
700	31	3,203	8.1	54	226	3.3
650	31	3,807	4.6	53	210	1.4
600	31	4,461	1.4	47	140	2.3
550	31	5,152	- 2.5	42	71	2.1
500	31	5,909	- 7.1	40	77	2.5
450	31	6,721	-11.9	37	60	4.9
400	31	7,617	-17.8	36	55	6.8
350	31	8,602	-24.5	30	58	10.5
300	31	9,706	-33.0		64	14.2
250	31	10,963	-43.0		58	18.7
200	31	12,428	-54.8		49	21.8
175	31	13,270	-61.2		50	22.0
150	31	14,214	-67.0		51	20.8
125	31	15,302	-71.4		54	18.8
100	30	16,615	-71.5		68	16.5
80	30	17,941	-68.1		77	18.3
70	30	18,752	-62.9		80	22.7
60	30	19,695	-61.8		86	29.9
50	29	20,831	-58.2		93	34.2
40	29	22,247	-54.7		96	35.0
30	29	24,105	-50.1		92	36.7
25	28	25,301	-47.9		88	35.8
20	25	26,775	-46.0		85	39.1
15	20	28,693	-43.8		85	42.6
10	17	31,435	-39.2		90	47.8
7	8	33,923	-34.3			
5						

MIDLAND, TEXAS
916 MB

Standard pressure surface (mb)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind	
					Direction	Speed
SURFACE	31	874	22.1	72	137	3.3
1000	31	107				
950	31	558				
900	31	1,032	22.8	61	159	10.3
850	31	1,530	21.2	55	189	20.2
800	31	2,053	18.4	52	200	14.4
750	31	2,600	14.9	50	190	9.1
700	31	3,184	10.8	52	180	4.3
650	31	3,793	6.4	56	186	3.7
600	31	4,449	1.8	58	186	5.2
550	31	5,140	- 2.5	56	191	7.0
500	31	5,898	- 7.0	50	195	6.4
450	31	6,708	-11.8	40	214	6.4
400	31	7,606	-17.4	34	235	6.2
350	31	8,592	-24.1		242	6.6
300	31	9,698	-32.6		251	5.1
250	31	10,955	-42.8		241	2.9
200	31	12,422	-54.8		192	1.6
175	31	13,264	-60.9		185	4.5
150	31	14,208	-66.7		189	5.6
125	31	15,298	-70.9		183	3.5
100	31	16,617	-70.9		66	5.1
80	30	17,944	-67.9		93	15.3
70	30	18,759	-64.3		100	16.3
60	29	19,701	-61.3		89	19.0
50	28	20,838	-58.3		88	23.7
40	27	22,253	-54.4		90	26.6
30	27	24,112	-50.6		92	26.6
25	27	25,304	-49.2		90	27.8
20	27	26,774	-46.9		87	31.3
15	26	28,691	-44.0		87	35.9
10	23	31,422	-40.3		90	40.6
7	14	33,876	-34.9		91	45.1
5						

MONTGOMERY, ALA.
1009 MB

Standard pressure surface (mb)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind	
					Direction	Speed
SURFACE	31	61	23.1	84	273	1.4
1000	31	142	23.6	81	276	2.3
950	31	591	24.7	69	289	7.6
900	31	1,067	21.8	69	297	6.4
850	31	1,561	18.5	69	297	7.6
800	31	2,079	15.1	69	294	8.5
750	31	2,619	11.8	61	301	9.1
700	31	3,199	8.6	54	306	8.5
650	31	3,805	5.0	51	307	7.4
600	31	4,458	1.5	46	302	8.2
550	31	5,152	- 2.4	45	296	8.4
500	31	5,906	- 6.5	38	305	9.7
450	31	6,718	-11.3	33	306	10.5
400	31	7,617	-17.0	31	307	13.2
350	31	8,606	-24.0		310	13.6
300	31	9,713	-32.2		311	13.0
250	31	10,972	-42.6		306	15.3
200	31	12,440	-55.0		313	17.5
175	31	13,282	-61.4		318	16.9
150	31	14,223	-68.1		324	14.4
125	30	15,307	-71.4		351	10.5
100	30	16,621	-71.4		45	8.4
80	30	17,953	-67.2		62	12.4
70	30	18,776	-63.6		74	15.9
60	30	19,720	-60.0		83	19.0
50	30	20,868	-56.4		90	22.3
40	29	22,295	-53.6		92	27.2
30	28	24,160	-50.4		87	26.8
25	26	25,354	-48.5		86	29.0
20	17	26,827	-45.5		90	29.0
15	9	28,740	-43.3			
10						
7						
5						

NANTUCKET, MASS.
1013 MB

Standard pressure surface (mb)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind	
					Direction	Speed
SURFACE	31	14	18.0	85	280	1.4
1000	31	124	17.9	78	282	3.3
950	31	562	16.4	66	294	8.7
900	31	1,022	14.0	63	289	9.5
850	31	1,502	11.1	61	280	11.9
800	31	2,005	8.3	57	282	14.6
750	31	2,530	5.7	49	288	18.8
700	31	3,098	2.5	46	285	20.4
650	31	3,690	- .3	36	284	24.3
600	31	4,331	- 3.6	33	281	26.8
550	31	5,005	- 7.5	27	281	30.9
500	31	5,749	-12.2		277	34.8
450	31	6,535	-17.7	32	278	36.7
400	31	7,419	-23.9		278	42.2
350	31	8,381	-30.5		278	46.2
300	31	9,459	-38.3		280	52.5
250	31	10,692	-46.5		278	56.7
200	30	12,147	-53.4		275	53.6
175	30	13,003	-55.3		277	50.7
150	30	13,983	-56.9		280	41.4
125	30	15,133	-58.4		274	32.6
100	30	16,536	-58.2		280	20.4
80	29	17,945	-56.7		285	5.6
70	28	18,794	-55.3		300	1.2
60	27	19,775	-54.0		76	4.1
50	27	20,949	-52.5		87	9.1
40	27	22,397	-50.8		94	14.4
30	26	24,282	-48.4		85	17.3
25	26	25,486	-46.8		86	21.0
20	25	26,975	-44.1		92	24.9
15	24	28,925	-40.4		87	25.8
10	21	31,708	-35.8		94	29.5
7	12	34,224	-30.5			
5						

NASHVILLE, TENN.
996 MB

Standard pressure surface (mb)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind	
					Direction	Speed
SURFACE	31	177	20.7	90	185	.6
1000	31	137				
950	31	583	22.2	68	285	5.1
900	31	1,054	19.3	66	289	7.4
850	31	1,544	16.9	57	293	10.3
800	31	2,060	14.3	52	294	12.2
750	31	2,597	11.1	50	296	14.0
700	31	3,175	7.7	44	296	15.3
650	31	3,777	4.3	42	297	15.9
600	31	4,430	.4	42	293	17.7
550	31	5,116	- 3.4	39	293	17.7
500	31	5,870	- 7.5	36	292	19.4
450	31	6,681	-12.5	32	290	22.0
400	31	7,574	-18.0	27	298	23.7
350	31	8,559	-25.0		299	29.0
300	31	9,662	-33.3		298	32.1
250	31	10,918	-42.9		295	37.3
200	31	12,385	-54.7		298	42.4
175	31	13,229	-60.5		299	41.0
150	31	14,177	-65.6		302	33.0
125	31	15,274	-69.5		308	22.0
100	31	16,606	-68.2		317	11.9
80	31	17,954	-65.3		30	8.0
70	31	18,783	-62.0		67	12.2
60	31	19,736	-58.3		89	14.0
50	31	20,891	-55.3		86	16.1
40	29	22,321	-52.8		86	18.8
30	29	24,188	-49.9		88	22.5
25	28	25,391	-47.8		86	24.5
20	28	26,872	-45.6		88	26.6
15	27	28,796	-42.7		89	30.7
10	24	31,566	-37.3		85	32.8
7	16	34,058	-34.4		82	33.2
5	6	36,444	-32.4			

N. Y. INT. AP. IDLEWILD
1014 MB

Standard pressure surface (mb)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind	
					Direction	Speed
SURFACE	31	5	19.9	76	302	3.1
1000	31	129	19.2	3	307	4.5
950	31	570	17.8	61	305	6.0
900	31	1,030	15.3	60	299	9.3
850	31	1,512	12.3	62	291	11.5
800	31	2,018	9.3	61	290	14.2
750	31	2,551	6.4	51	290	17.3
700	31	3,114	3.4	46	286	19.4
650	31	3,709	- .1	42	284	22.5
600	31	4,349	- 3.3	37	285	27.4
550	31	5,025	- 7.3	36	284	30.5
500	31	5,769	-11.9		284	31.5
450	31	6,563	-17.1		284	33.8
400	31	7,441	-23.2		284	39.6
350	31	8,405	-30.1		282	45.1
300	31	9,484	-38.1		283	52.5
250	31	10,716	-46.5		284	58.9
200	31	12,170	-54.3		288	58.1
175	31	13,021	-56.8		287	51.5
150	31	13,992	-58.8		284	43.7
125	31	15,134	-60.1		286	31.3
100	31	16,524	-60.2		293	18.7
80	31	17,923	-57.7		306	6.8
70	31	18,774	-56.0		29	1.6
60	31	19,752	-54.7		81	5.8
50	31	20,922	-53.1		89	10.9
40	30	22,366	-51.1		93	15.9
30	30	24,246	-48.9		90	19.2
25	28	25,452	-46.8		93	21.0
20	20	26,945	-44.4		96	23.9
15	9	28,862	-41.8			
10						
7						
5						

NOME, ALASKA
1016 MB

Standard pressure surface (mb)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind	
					Direction	Speed
SURFACE	31	7	9.6	69	274	1.0
1000	31	139	11.4	80	222	2.7
950	31	567	10.0	73	215	5.6
900	31	1,016	8.3	66	217	8.0
850	31	1,486	6.4	49	224	9.3
800	31	1,983	4.4	59	221	10.3
750	31	2,504	2.0	57	222	10.5
700	31	3,061	- .8	53	226	11.5
650	31	3,643	- 4.0	52	230	12.4
600	31	4,277	- 7.7	51	237	11.3
550	31	4,942	-11.9	52	241	12.6
500	31	5,674	-16.4	46	238	10.9
450	31	6,448	-21.8	39	254	12.0
400	31	7,315	-28.3	41	261	12.0
350	31	8,259	-35.4	41	271	13.0
300	31	9,315	-43.3		286	14.0
250	31	10,520	-51.3		292	17.5
200	31	11,952	-54.6		289	11.9
175	31	12,812	-51.7		284	9.5
150	31	13,815	-50.4		283	8.2
125	31	15,005	-50.2		283	5.2
100	31	16,463	-49.8		287	2.7
80	31	17,925	-48.8		55	.6
70	31	18,804	-48.2		68	1.9
60	31	19,819	-47.7		71	2.9
50	31	21,023	-47.2		79	5.8
40	31	22,501	-46.7		85	8.0
30	31	24,412	-45.6		82	11.3
25	31	25,629	-44.4		83	12.8
20	30	27,131	-42.5		83	15.0
15	17	29,111	-39.1		89	17.9
10						
7						
5						

NORFOLK, VA.
1015 MB

Standard pressure surface (mb)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind	
					Direction	Speed
SURFACE	31	9	21.0	88	196	1.6
1000	31	136	21.7	82	214	1.7
950	31	578	20.2	73	289	4.5
900	31	1,047	17.5	72	290	6.8
850	31	1,534	14.5	69	286	9.9
800	31	2,045	11.8	64	280	13.4
750	31	2,581	9.2	52	280	15.7
700	31	3,153	6.2	47	280	18.8
650	31	3,752	3.3	38	282	21.0
600	31	4,402	- .3	37	279	23.3
550	31	5,086	- 4.1		276	25.5
500	31	5,839	- 8.5		275	27.2
450	31	6,643	-13.5		276	28.6
400	31	7,535	-19.8	37	282	33.4
350	31	8,513	-26.5	34	283	34.6
300	31	9,608	-34.9		286	37.1
250	31	10,855	-44.5		289	42.6
200	31	12,313	-55.1		293	47.0
175	31	13,157	-59.9		294	45.3
150	31	14,110	-63.9		295	40.6
125	31	15,219	-66.2		291	27.8
100	31	16,573	-65.0		295	17.3
80	31	17,945	-61.8		342	7.0
70	31	18,782	-59.1		42	4.9
60	31	19,750	-57.0		81	10.3
50	31	20,911	-54.5		89	17.3
40	31	22,348	-51.9		89	20.0
30	31	24,226	-48.8		90	24.1
25	31	25,430	-46.9		91	22.9
20	28	26,908	-44.6		87	24.5
15	22	28,851	-42.0		89	28.2
10						
7						
5						

NORTH PLATTE, NEBR.
918 MB

Standard pressure surface (mb)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind	
					Direction	Speed
SURFACE	31	848	16.7	86	125	1.0
1000	31	112				
950	31	555				
900	31	1,020	18.1	79	136	2.1
850	31	1,511	18.3	63	203	7.2
800	31	2,030	16.2	54	248	8.9
750	31	2,576	13.0	51	268	10.1
700	31	3,153	9.1	52	273	12.6
650	31	3,755	4.4	52	288	13.8
600	31	4,409	- .2	48	292	14.4
550	31	5,089	- 5.1	45	290	17.9
500	31	5,843	- 9.7	41	284	19.2
450	31	6,641	-14.7	36	277	21.4
400	31	7,531	-20.8	34	268	28.2
350	31	8,505	-27.7		269	35.0
300	31	9,597	-35.4		265	44.9
250	31	10,842	-44.8		263	51.1
200	31	12,304	-54.0		261	55.8
175	30	13,151	-58.1		265	52.1
150	30	14,113	-62.1		268	44.7
125	29	15,230	-64.0		276	29.1
100	29	16,595	-64.6		262	14.6
80	29	17,965	-61.8		304	5.6
70	29	18,800	-60.0		10	1.4
60	29	19,765	-56.8		82	4.9
50	29	20,927	-54.3		87	9.7
40	29	22,366	-51.4		94	14.2
30	29	24,244	-49.3		85	16.9
25	29	25,444	-47.6		89	20.0
20	27	26,923	-45.0		89	21.0
15	26	28,858	-42.2		83	22.0
10	24	31,632	-36.7		90	29.5
7	22	34,126	-32.6		88	31.9
5	15	36,497	-29.5			

OAKLAND, CALIF.
1014 MB

Standard pressure surface (mb)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind	
					Direction	Speed
SURFACE	31	6	12.7	85	302	3.9
1000	31	121	11.9	85	281	3.9
950	31	559	14.4	68	260	5.6
900	31	1,019	22.6	24	302	7.6
850	31	1,513	19.9	21	299	4.7
800	31	2,031	16.4	19	266	1.7
750	31	2,569	12.6		251	1.4
700	31	3,151	8.9		242	1.7
650	31	3,754	5.0		245	3.5
600	31	4,408	.7		249	5.1
550	31	5,089	- 4.3		264	6.6
500	31	5,845	- 9.6		254	11.5
450	31	6,639	-16.1		258	14.4
400	31	7,526	-22.9		258	16.7
350	31	8,491	-30.4		254	20.4
300	31	9,570	-38.8		256	23.5
250	31	10,799	-47.5		252	28.8
200	31	12,250	-54.3		247	37.3
175	30	13,103	-56.0		246	37.7
150	30	14,078	-59.3		245	35.0
125	29	15,210	-62.7		249	27.0
100	29	16,581	-64.2		255	11.7
80	29	17,951	-62.5		151	1.7
70	29	18,784	-60.3		105	5.4
60	29	19,745	-58.1		94	9.7
50	29	20,899	-56.1		89	12.8
40	29	22,326	-53.7		88	17.1
30	29	24,185	-50.9		[illegible]	19.8
25	29	25,380	-49.2		86	22.2
20	28	26,850	-47.0		87	24.9
15	28	28,771	-43.4		91	26.4
10	25	31,521	-39.0		89	30.5
7	15	33,975	-36.1		84	32.4
5	11	36,324	-31.6			

See reference note at end of table

RAWINSONDE DATA

Average monthly values

OKLAHOMA CITY, OKLA.
970 MB

Standard pressure surface (mb.)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind Direction	Wind Speed
SURFACE	31	392	23.0	85	159	4.7
1000	31	128				
950	31	580	24.2	74	183	11.9
900	31	1,053	23.1	62	219	18.3
850	31	1,550	20.4	58	223	16.9
800	31	2,072	16.9	60	227	11.5
750	31	2,614	13.0	60	228	8.4
700	31	3,196	9.1	59	237	7.2
650	31	3,802	5.0	54	243	5.6
600	31	4,456	1.1	50	237	7.8
550	31	5,141	-3.0	44	239	9.3
500	31	5,901	-7.4	44	251	11.7
450	31	6,707	-12.1	39	256	11.9
400	31	7,607	-17.8	34	264	13.4
350	31	8,592	-24.7		266	14.4
300	31	9,695	-32.8		261	16.1
250	31	10,952	-42.7		266	18.3
200	31	12,418	-54.7		268	21.6
175	31	13,260	-60.8		266	18.7
150	31	14,205	-66.0		270	17.1
125	31	15,301	-69.3		274	12.0
100	31	16,630	-69.5		325	7.4
80	31	17,972	-66.6		72	9.5
70	31	18,792	-63.1		91	12.2
60	31	19,747	-59.8		88	13.4
50	31	20,896	-56.9		91	15.2
40	31	22,322	-54.0		89	21.4
30	31	24,185	-50.8		89	24.3
25	31	25,381	-48.2		89	24.9
20	27	26,861	-46.0		87	27.4
15	12	28,771	-43.8			
10						
7						
5						

OLYMPIA, WASH.
1012 MB

Standard pressure surface (mb.)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind Direction	Wind Speed
SURFACE	31	58	9.9	87	227	2.3
1000	31	160	11.9	79	227	1.9
950	31	589	12.5	69	354	2.1
900	31	1,043	11.3	65	352	4.9
850	31	1,519	9.6	56	343	4.9
800	31	2,020	7.1	50	317	6.0
750	31	2,549	4.7	35	297	7.8
700	31	3,108	1.6	31	288	9.3
650	31	3,699	-2.0		282	11.9
600	31	4,333	-6.1		279	14.2
550	31	5,005	-10.6		272	16.5
500	31	5,734	-15.8		272	19.8
450	31	6,511	-21.7		273	22.2
400	31	7,375	-28.4		273	24.5
350	31	8,318	-35.7		272	24.9
300	31	9,371	-43.5		271	30.7
250	31	10,576	-50.8		269	33.0
200	31	12,014	-53.5		265	30.5
175	31	12,875	-52.4		258	28.0
150	31	13,871	-53.0		259	25.5
125	31	15,042	-54.6		254	19.6
100	31	16,466	-56.0		246	11.9
80	31	17,886	-55.4		237	4.7
70	31	18,741	-54.9		176	1.7
60	31	19,726	-53.9		102	4.7
50	31	20,899	-53.1		93	7.2
40	30	22,342	-51.5		90	10.7
30	30	24,221	-48.9		85	13.6
25	29	25,426	-47.3		86	16.3
20	26	26,912	-44.8		88	19.0
15	22	28,845	-41.5		86	23.9
10						
7						
5						

OMAHA, NEBR.
968 MB

Standard pressure surface (mb.)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind Direction	Wind Speed
SURFACE	29	403	18.3	92	159	.6
1000	29	121				
950	29	564	20.3	77	221	2.1
900	29	1,031	19.5	66	250	6.8
850	29	1,521	16.8	52	263	10.1
800	29	2,036	14.1	54	274	11.7
750	29	2,576	10.9	50	277	12.6
700	29	3,150	7.3	49	283	15.3
650	29	3,750	3.3	43	278	16.7
600	29	4,401	-.6	41	277	18.5
550	29	5,083	-5.0	36	279	19.8
500	29	5,834	-9.6	35	280	21.8
450	29	6,634	-14.5		278	24.3
400	29	7,523	-20.4		280	31.9
350	29	8,499	-27.2		280	40.6
300	29	9,592	-35.3		276	48.0
250	29	10,837	-44.9		272	52.1
200	29	12,296	-54.7		272	61.2
175	29	13,143	-58.6		276	55.8
150	29	14,104	-61.9		279	47.4
125	28	15,225	-64.1		282	32.4
100	26	16,587	-64.1		282	18.5
80	26	17,962	-61.8		302	8.5
70	26	18,792	-60.0		355	3.5
60	26	19,761	-57.1		60	6.0
50	25	20,976	-54.7		80	8.0
40	25	22,433	-51.6		84	9.5
30	22	24,234	-49.1		84	9.7
25	21	25,439	-47.5		86	11.7
20	13	26,929	-44.8		91	12.4
15						
10						
7						
5						

PEORIA, ILL.
993 MB

Standard pressure surface (mb.)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind Direction	Wind Speed
SURFACE	25	200	17.1	92	354	1.6
1000	25	137				
950	25	578	19.0	75	307	6.6
900	25	1,041	16.9	71	290	8.5
850	25	1,528	14.6	64	289	11.7
800	25	2,039	12.2	55	287	14.8
750	25	2,575	9.8	46	288	17.7
700	25	3,148	6.5	44	291	20.8
650	25	3,750	3.0	37	288	21.2
600	25	4,397	-.9	33	289	24.3
550	25	5,079	-4.9		285	21.2
500	25	5,831	-9.4		287	26.8
450	25	6,631	-14.3		286	29.3
400	25	7,523	-20.5		291	33.8
350	25	8,498	-27.4		289	39.4
300	25	9,589	-35.4		287	46.6
250	25	10,834	-44.8		287	55.6
200	25	12,292	-54.4		287	63.0
175	25	13,139	-58.3		289	61.2
150	25	14,102	-61.3		291	47.6
125	25	15,225	-63.5		289	31.3
100	24	16,595	-63.5		294	21.0
80	24	17,972	-61.2		321	8.5
70	24	18,811	-59.1		354	5.6
60	24	19,779	-56.2		58	6.6
50	24	20,945	-53.7		79	10.3
40	24	22,387	-51.5		83	14.8
30	24	24,266	-49.0		88	18.3
25	24	25,468	-47.5		88	19.6
20	24	26,952	-44.8		86	22.0
15	22	28,896	-41.5		85	23.3
10	21	31,682	-36.4		91	32.1
7	16	34,179	-32.4			
5	5	36,587	-27.4			

PITTSBURGH, PA.
975 MB

Standard pressure surface (mb.)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind Direction	Wind Speed
SURFACE	31	353	16.0	55		.0
1000	31	139				
950	31	579	17.6	77	273	2.7
900	31	1,040	15.4	72	278	6.2
850	31	1,523	12.3	60	281	8.4
800	31	2,030	10.1	58	279	12.4
750	31	2,562	7.2	57	279	14.6
700	31	3,129	4.1	53	281	17.7
650	31	3,725	1.0	47	282	21.4
600	31	4,369	-2.2	39	284	24.7
550	31	5,046	-6.2		285	27.4
500	31	5,795	-10.7		288	29.1
450	31	6,593	-16.1		286	32.1
400	31	7,474	-22.5		285	39.2
350	31	8,442	-29.0		284	47.6
300	31	9,527	-36.9		289	51.5
250	31	10,767	-45.5		290	63.7
200	31	12,227	-54.0		293	69.2
175	31	13,078	-57.3		296	65.3
150	31	14,046	-60.3		297	50.9
125	31	15,177	-62.3		291	36.7
100	31	16,557	-61.8		292	22.9
80	31	17,945	-59.7		326	8.5
70	30	18,788	-57.7		23	3.5
60	30	19,760	-55.2		73	8.5
50	30	20,929	-53.4		84	14.2
40	30	22,371	-51.3		88	16.9
30	29	24,247	-49.0		89	21.2
25	29	25,447	-47.4		86	21.2
20	27	26,930	-44.7		86	25.1
15	27	28,866	-41.8		91	27.0
10	23	31,647	-37.0		91	31.1
7	16	34,121	-33.6			
5	5	36,426	-31.1			

PONAPE, CAROLINE IS.
1004 MB

Standard pressure surface (mb.)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind Direction	Wind Speed
SURFACE	31	39	24.7	93	86	1.9
1000	31	75	25.0	90	92	2.5
950	31	519	23.4	84	106	6.0
900	31	999	20.5	83	109	8.4
850	31	1,492	17.7	80	107	9.1
800	31	2,010	15.1	77	104	8.9
750	31	2,552	12.3	76	102	9.1
700	31	3,132	9.2	77	102	10.7
650	31	3,742	5.6	80	103	11.5
600	31	4,396	2.1	80	105	12.4
550	31	5,092	-1.4	76	102	11.1
500	31	5,850	-5.4	72	101	11.7
450	31	6,670	-10.1	63	95	9.9
400	31	7,571	-15.7	55	95	10.5
350	31	8,565	-22.5	50	97	9.7
300	31	9,678	-30.8	43	80	9.1
250	31	10,945	-41.1		73	8.0
200	31	12,422	-53.6		43	7.0
175	31	13,267	-60.6		40	7.4
150	31	14,209	-68.1		35	7.8
125	30	15,284	-75.3		17	4.3
100	28	16,558	-79.1		97	2.5
80	27	17,849	-71.8		92	8.9
70	27	18,642	-68.5		95	6.0
60	26	19,572	-65.7		76	7.2
50	25	20,687	-62.7		84	14.0
40	24	22,072	-60.0		88	30.5
30	24	23,881	-56.6		89	57.1
25	23	25,046	-54.1		91	59.1
20	23	26,486	-51.5		92	65.9
15	22	28,372	-47.8		90	68.0
10	19	31,079	-42.9		91	62.8
7	15	33,483	-41.0		90	54.2
5	6	35,761	-36.5			

PORTLAND, ME.
1012 MB

Standard pressure surface (mb.)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind Direction	Wind Speed
SURFACE	31	20	16.3	82	276	2.3
1000	31	118	16.4	76	290	3.5
950	31	557	15.1	68	307	6.8
900	31	1,011	12.5	68	304	8.5
850	31	1,488	9.4	69	300	10.3
800	31	1,989	6.4	68	301	12.0
750	31	2,516	3.5	63	295	13.8
700	31	3,074	.6	55	291	15.9
650	31	3,663	-2.4	47	287	19.6
600	31	4,298	-6.0	44	285	21.6
550	31	4,968	-10.3	41	283	23.5
500	31	5,703	-14.8	34	281	24.9
450	31	6,483	-20.0		279	25.8
400	31	7,357	-26.1		278	29.3
350	31	8,310	-33.1		286	34.4
300	31	9,378	-40.3		282	41.8
250	31	10,602	-47.7		280	46.8
200	31	12,056	-52.0		278	45.5
175	31	12,919	-52.4		277	42.0
150	31	13,914	-53.6		276	36.1
125	31	15,080	-55.6		276	26.6
100	31	16,500	-56.0		279	14.8
80	30	17,922	-54.8		276	6.6
70	30	18,782	-54.1		270	1.6
60	30	19,770	-52.9		96	2.9
50	30	20,950	-51.4		94	7.2
40	27	22,406	-50.2		91	10.1
30	23	24,295	-48.2		91	14.2
25	18	25,494	-46.4		86	17.9
20	11	26,989	-43.9			
15						
10						
7						
5						

RAPID CITY, S. DAK.
906 MB

Standard pressure surface (mb.)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind Direction	Wind Speed
SURFACE	31	966	15.5	85	314	.6
1000	31	116				
950	31	555				
900	31	1,021	16.6	74	325	1.0
850	31	1,510	17.2	58	264	3.1
800	31	2,026	14.8	54	272	5.6
750	31	2,565	11.4	53	282	8.4
700	31	3,141	7.5	51	280	13.2
650	31	3,742	3.1	51	278	16.1
600	31	4,390	-1.4	52	281	19.4
550	31	5,070	-6.5	50	280	23.1
500	31	5,815	-11.5	43	280	25.1
450	31	6,607	-17.1	37	276	27.0
400	31	7,487	-23.2		273	29.5
350	31	8,451	-30.3		267	34.8
300	31	9,529	-38.5		266	39.6
250	31	10,758	-47.2		266	47.8
200	31	12,209	-54.3		260	55.8
175	31	13,060	-56.5		261	57.3
150	31	14,032	-59.3		263	49.0
125	31	15,168	-60.7		271	33.4
100	31	16,556	-60.6		276	20.0
80	31	17,945	-60.3		275	8.0
70	31	18,788	-57.9		281	2.3
60	31	19,761	-55.5		67	4.5
50	31	20,930	-53.3		83	9.3
40	31	22,375	-51.2		83	10.7
30	30	24,254	-48.9		86	14.0
25	30	25,456	-47.6		88	16.9
20	30	26,938	-44.9		86	18.8
15	15	28,871	-41.6			
10						
7						
5						

ST. CLOUD, MINN.
978 MB

Standard pressure surface (mb.)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind Direction	Wind Speed
SURFACE	31	316	15.1	88		.0
1000	31	130				
950	31	571	16.4	79	269	2.3
900	31	1,027	14.8	71	284	4.9
850	31	1,509	12.2	69	288	7.8
800	31	2,016	9.7	62	284	9.1
750	31	2,547	7.0	54	281	11.1
700	31	3,114	3.8	48	286	15.7
650	31	3,708	.4	46	284	18.5
600	31	4,350	-3.6	42	286	21.6
550	31	5,021	-7.7	38	287	21.2
500	31	5,768	-12.3	35	285	25.3
450	31	6,558	-17.5		285	27.8
400	31	7,437	-23.8		285	31.1
350	31	8,399	-30.6		283	37.3
300	31	9,475	-38.5		283	45.3
250	31	10,704	-47.3		280	53.2
200	31	12,154	-54.2		276	65.7
175	31	13,006	-56.4		280	62.6
150	31	13,981	-57.7		287	48.6
125	31	15,128	-58.3		286	33.4
100	31	16,528	-59.1		289	22.2
80	31	17,932	-57.5		301	11.1
70	31	18,780	-56.5		332	5.2
60	31	19,760	-54.6		40	5.2
50	30	20,932	-52.7		69	6.6
40	30	22,381	-50.5		75	10.1
30	30	24,266	-48.3		88	12.4
25	29	25,471	-47.1		89	14.4
20	29	26,957	-44.5		84	17.5
15	27	28,906	-41.3		88	20.6
10	23	31,675	-36.7		85	23.9
7	20	34,173	-32.7		85	26.4
5	14	36,559	-30.2			

ST. PAUL IS., ALASKA
1015 MB

Standard pressure surface (mb.)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind Direction	Wind Speed
SURFACE	31	10	7.2	87	157	2.5
1000	31	135	7.4	89	152	4.7
950	31	557	7.8	80	173	8.2
900	31	1,004	7.4	72	173	7.8
850	31	1,474	6.1	42	173	6.0
800	31	1,970	4.4	64	180	5.4
750	31	2,492	2.0	61	180	5.1
700	31	3,048	-.8	60	162	6.2
650	31	3,632	-3.7	54	165	4.3
600	31	4,265	-7.7	53	173	4.1
550	31	4,927	-11.6	48	185	4.5
500	31	5,663	-15.9	46	172	3.9
450	31	6,440	-21.3	38	132	2.7
400	31	7,308	-27.5	43	152	3.3
350	31	8,254	-34.6	41	123	1.7
300	31	9,313	-42.4		95	2.5
250	31	10,523	-50.5		24	1.2
200	31	11,961	-54.2		328	6.4
175	31	12,819	-52.8		331	4.1
150	31	13,816	-52.0		309	5.1
125	31	14,995	-52.2		332	3.3
100	31	16,439	-52.1		323	1.4
80	31	17,885	-51.4		61	2.5
70	31	18,755	-51.0		51	2.3
60	31	19,756	-50.6		91	5.2
50	31	20,945	-50.0		87	5.8
40	31	22,405	-49.2		87	8.5
30	31	24,296	-47.8		93	11.1
25	30	25,501	-46.3		93	13.4
20	30	26,988	-44.4		95	15.5
15	27	28,925	-41.8		89	18.8
10	12	31,672	-32.8			
7						
5						

SALEM, OREG.
1012 MB

Standard pressure surface (mb.)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind Direction	Wind Speed
SURFACE	31	61	10.5	86	294	1.6
1000	31	161	13.3	75	335	3.3
950	31	592	13.6	68	10	7.4
900	31	1,049	12.6	61	351	6.2
850	31	1,528	11.2	44	333	5.4
800	31	2,032	9.0	36	306	6.4
750	31	2,561	6.7	28	288	9.3
700	31	3,127	3.8		278	10.7
650	31	3,722	.2		273	12.8
600	31	4,362	-4.0		265	16.5
550	31	5,034	-8.7		265	19.0
500	31	5,773	-14.0		268	22.0
450	31	6,559	-19.9		266	23.3
400	31	7,427	-26.6		269	26.8
350	31	8,377	-34.1		268	30.7
300	31	9,438	-42.6		265	33.2
250	31	10,647	-50.8		262	35.6
200	31	12,080	-54.9		261	37.7
175	31	12,938	-53.3		257	34.8
150	31	13,929	-54.2		255	29.9
125	31	15,093	-56.0		253	21.8
100	31	16,507	-57.8		252	13.2
80	31	17,917	-57.2		251	5.2
70	31	18,764	-56.1		221	1.4
60	31	19,742	-54.7		91	4.7
50	31	20,911	-53.8		88	7.2
40	31	22,349	-51.9		85	10.5
30	29	24,225	-49.3		83	13.6
25	29	25,424	-47.7		85	15.2
20	29	26,904	-45.6		86	16.9
15	27	28,840	-41.7		87	20.0
10	6	31,579	-37.9			
7						
5						

SALT LAKE CITY, UTAH
872 MB

Standard pressure surface (mb.)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind Direction	Wind Speed
SURFACE	31	1,288	18.0	49	159	5.2
1000	31	97				
950	31	545				
900	31	1,017				
850	31	1,510	21.3	33	162	8.5
800	31	2,034	19.3	29	182	9.3
750	31	2,583	15.5	29	209	7.0
700	31	3,166	10.8	32	242	6.4
650	31	3,777	5.7	37	248	10.9
600	31	4,428	.2	43	241	14.8
550	31	5,110	-5.7	49	233	15.9
500	31	5,858	-11.7	47	238	16.7
450	31	6,653	-17.0		249	18.7
400	31	7,532	-23.3		248	22.5
350	31	8,496	-30.4		248	24.9
300	31	9,573	-38.5		247	31.7
250	31	10,802	-47.4		245	41.4
200	31	12,252	-54.5		240	51.1
175	31	13,102	-56.9		243	48.0
150	31	14,072	-60.0		244	40.0
125	31	15,202	-62.3		248	27.4
100	31	16,572	-64.3		242	15.2
80	31	17,943	-62.3		223	5.6
70	31	18,776	-59.7		118	1.2
60	31	19,740	-57.8		87	6.8
50	31	20,895	-55.8		86	10.5
40	30	22,322	-53.1		84	12.2
30	30	24,187	-50.6		84	15.9
25	29	25,377	-48.6		88	17.5
20	27	26,852	-46.4		83	19.8
15	21	28,783	-43.2		[illegible]	22.0
10	7	31,523	-39.1			
7						
5						

SAN ANTONIO, TEXAS
988 MB

Standard pressure surface (mb.)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind Direction	Wind Speed
SURFACE	31	243	24.4	86	175	6.8
1000	31	137				
950	31	588	21.8	84	183	16.3
900	31	1,056	20.7	59	185	22.2
850	31	1,550	19.4	43	177	17.9
800	31	2,070	16.5	43	170	13.2
750	31	2,613	13.5	40	161	10.7
700	31	3,195	10.5	33	151	7.8
650	31	3,802	6.7	33	143	6.0
600	31	4,461	2.4	34	140	3.7
550	31	5,154	-2.2	31	138	2.5
500	31	5,910	-7.0	31	152	3.1
450	31	6,721	-11.8		155	4.7
400	31	7,618	-17.7		131	4.5
350	31	8,604	-24.4		114	4.3
300	31	9,708	-32.9		104	4.9
250	31	10,963	-42.9		97	6.2
200	31	12,431	-54.5		108	9.7
175	31	13,273	-60.7		106	10.5
150	31	14,219	-66.6		107	10.9
125	31	15,306	-71.9		98	10.3
100	31	16,617	-71.9		77	14.2
80	31	17,943	-68.1		[illegible]	21.0
70	31	18,760	-65.1		88	20.8
60	31	19,701	-61.3		85	21.8
50	31	20,843	-57.7		84	25.6
40	31	22,259	-55.2		[illegible]	30.7
30	31	24,114	-51.2		88	34.2
25	31	25,307	-48.9		[illegible]	34.0
20	28	26,781	-47.0		88	34.0
15	16	28,680	-45.0			
10						
7						
5						

SAN DIEGO, CALIF.
999 MB

Standard pressure surface (mb.)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind Direction	Wind Speed
SURFACE	31	124	16.5	89	299	1.7
1000	31	118	16.7	89	305	2.1
950	31	557	16.0	71	[illegible]	1.0
900	31	1,020	21.4	29	306	2.9
850	31	1,515	21.2	23	268	4.5
800	31	2,037	18.3	28	227	6.2
750	31	2,573	14.6	34	204	7.8
700	31	3,167	10.5	36	197	8.2
650	31	3,770	6.3	37	200	8.4
600	31	4,432	2.0		215	8.4
550	31	5,115	-2.4		230	9.5
500	31	5,880	-7.4		236	10.7
450	31	6,682	-13.1		241	11.7
400	31	7,581	-19.6		247	16.1
350	31	8,559	-26.6		240	20.2
300	31	9,654	-34.8		236	25.1
250	31	10,903	-44.1		235	28.8
200	31	12,368	-53.7		226	29.1
175	31	13,216	-59.0		227	28.2
150	31	14,170	-64.5		226	24.1
125	31	15,272	-67.9		238	18.1
100	31	16,609	-68.3		211	4.1
80	31	17,951	-66.3		109	8.5
70	31	18,774	-63.1		101	11.7
60	31	19,719	-60.4		90	15.5
50	31	20,865	-57.1		94	19.6
40	31	22,285	-54.1		89	22.9
30	31	24,142	-51.5		88	24.7
25	31	25,329	-49.8		86	27.2
20	28	26,797	-47.5		89	30.3
15	15	28,716	-44.2		94	34.6
10						
7						
5						

SAN JUAN, P. R.
1017 MB

Standard pressure surface (mb.)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind Direction	Wind Speed
SURFACE	31	6	25.6	84	92	3.3
1000	31	153	25.1	81	92	14.0
950	31	596	22.2	79	97	17.7
900	31	1,072	19.1	76	100	17.7
850	31	1,562	16.8	64	100	18.8
800	31	2,076	14.4	53	103	19.6
750	31	2,607	11.4	47	106	19.8
700	31	3,193	8.1	41	103	17.1
650	31	3,793	4.1	39	106	15.9
600	31	4,447	.5	38	102	13.4
550	31	5,127	-3.3	34	89	13.4
500	31	5,889	-7.6		98	10.3
450	31	6,692	-12.4		91	8.7
400	31	7,593	-18.4		82	7.2
350	31	8,575	-25.7		93	4.9
300	31	9,674	-34.2		161	1.7
250	30	10,922	-44.2		180	1.0
200	30	12,381	-55.7		250	3.1
175	30	13,219	-61.3		227	1.6
150	30	14,163	-66.5		110	3.5
125	29	15,255	-70.1		110	5.6
100	29	16,570	-73.0		87	12.6
80	28	17,886	-70.4		82	20.6
70	28	18,685	-67.4		83	25.5
60	28	19,623	-63.5		89	31.3
50	28	20,754	-60.0		93	34.6
40	28	22,157	-57.1		92	37.7
30	28	23,997	-53.0		92	45.3
25	28	25,179	-50.5		90	44.9
20	25	26,645	-47.4		88	48.2
15	21	28,558	-45.1		90	47.0
10	19	31,282	-40.7		90	55.4
7	14	33,739	-37.4		89	62.0
5	8	36,084	-35.2			

See reference note at end of table

RAWINSONDE DATA

Average monthly values

JULY 1962

SANTA MONICA, CALIF.
1010 MB

Standard pressure surface (mb.)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind	
					Direction	Speed
SURFACE	31	38	15.8	89	346	.6
1000	31	126	15.0	88		.0
950	31	565	16.0	66	105	2.3
900	31	1,025	20.3	31	321	2.1
850	31	1,518	19.9	23	292	3.5
800	31	2,038	17.2	23	261	3.9
750	31	2,580	14.1	23	221	6.2
700	31	3,163	10.3	26	215	7.4
650	31	3,770	6.2		228	7.6
600	31	4,427	2.2		236	7.6
550	31	5,116	- 2.4		241	8.9
500	31	5,873	- 7.8		244	12.2
450	31	6,679	-14.1		249	15.2
400	31	7,566	-21.0		247	18.1
350	31	8,538	-28.3		246	22.0
300	31	9,625	-36.3		239	30.5
250	31	10,866	-45.1		239	32.8
200	31	12,326	-54.4		236	34.2
175	31	13,172	-59.0		234	32.4
150	31	14,128	-63.7		235	28.4
125	31	15,235	-67.3		241	20.8
100	31	16,573	-68.8		229	5.2
80	31	17,917	-65.8		109	6.6
70	31	18,733	-63.5		100	9.9
60	31	19,685	-60.6		94	15.0
50	31	20,830	-57.4		93	17.3
40	31	22,250	-54.6		87	21.0
30	31	24,102	-52.1		89	23.1
25	31	25,287	-50.3		86	25.3
20	31	26,750	-48.3		87	30.1
15	28	28,663	-44.6		91	33.4
10	14	31,378	-40.6			
7						
5						

SAULT STE. MARIE, MICH.
989 MB

Standard pressure surface (mb.)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind	
					Direction	Speed
SURFACE	31	221	12.3	89	4	1.0
1000	31	125				
950	31	559	14.7	60	286	4.1
900	31	1,015	12.6	54	296	6.0
850	31	1,492	9.5	53	302	7.8
800	31	1,993	6.6	50	301	8.9
750	31	2,518	3.9	41	303	11.9
700	31	3,078	1.0	38	297	13.6
650	31	3,666	- 2.1	34	293	15.7
600	31	4,303	- 5.7	30	293	18.7
550	31	4,973	- 9.7		293	22.0
500	31	5,710	-14.4		296	25.8
450	31	6,494	-19.9		295	29.1
400	31	7,365	-26.0		295	31.7
350	31	8,318	-33.0		297	36.7
300	31	9,385	-40.7		295	45.7
250	31	10,604	-48.8		296	51.1
200	30	12,051	-52.8		294	57.7
175	30	12,912	-53.6		294	47.2
150	30	13,901	-54.8		293	40.4
125	30	15,062	-56.2		292	32.1
100	29	16,476	-55.7		294	19.8
80	28	17,898	-55.3		306	10.3
70	28	18,758	-54.2		331	4.9
60	28	19,743	-52.9		26	2.7
50	28	20,923	-51.4		76	6.2
40	28	22,376	-50.0		80	10.1
30	27	24,263	-48.1		87	15.3
25	27	25,469	-46.5		86	19.0
20	27	26,959	-43.9		85	21.4
15	27	28,907	-40.1		88	22.3
10	27	31,701	-35.8		90	27.8
7	19	34,207	-31.2		89	34.4
5	7	36,575	-26.1			

SHEMYA, ALASKA
1010 MB

Standard pressure surface (mb.)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind	
					Direction	Speed
SURFACE	31	38	8.3	99	212	3.9
1000	31	116	8.2	96	210	4.7
950	31	540	[illegible].8	90	223	8.0
900	31	989	8.5	82	230	7.4
850	31	1,461	7.2	75	240	7.8
800	31	1,959	5.5	72	244	8.7
750	31	2,483	3.3	66	238	8.4
700	31	3,043	.4	65	243	8.5
650	31	3,627	- 2.9	61	247	10.1
600	31	4,265	- 6.5	55	244	11.1
550	31	4,934	-10.5	49	250	11.5
500	31	5,668	-15.2	43	249	11.9
450	31	6,452	-20.6	43	247	14.0
400	31	7,319	-26.7	44	243	15.5
350	31	8,268	-33.6	44	242	16.7
300	31	9,331	-41.6		249	19.0
250	31	10,545	-49.5		258	23.9
200	31	11,987	-54.0		263	22.3
175	31	12,846	-52.9		264	17.3
150	31	13,841	-52.4		265	13.2
125	31	15,018	-53.2		265	8.5
100	31	16,453	-53.6		263	4.3
80	31	17,891	-52.7		11	.6
70	31	18,754	-52.3		90	2.5
60	31	19,752	-51.7		91	3.9
50	31	20,935	-51.2		90	6.0
40	30	22,388	-50.6		89	8.0
30	30	24,269	-49.1		86	11.9
25	30	25,468	-47.7		84	12.6
20	28	26,946	-45.[illegible]		86	15.5
15	25	28,874	-43.1		92	18.8
10	17	31,635	-38.8			
7	5	34,147	-35.2			
5						

SHREVEPORT, LA.
1008 MB

Standard pressure surface (mb.)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind	
					Direction	Speed
SURFACE	31	79	23.6	89	203	3.9
1000	31	148	24.0	85	201	5.4
950	31	602	24.5	70	229	10.5
900	31	1,072	21.8	65	223	9.1
850	31	1,567	18.8	59	222	8.0
800	31	2,085	15.6	55	221	5.8
750	31	2,626	12.2	53	220	4.7
700	31	3,205	8.6	49	244	3.7
650	31	3,810	4.9	43	265	2.7
600	31	4,462	1.2	41	258	3.5
550	31	5,151	- 2.8	37	270	3.7
500	31	5,907	- 7.0	34	268	5.1
450	31	6,718	-11.8		280	5.2
400	31	7,614	-17.6		292	6.0
350	31	8,600	-24.6		283	4.9
300	31	9,704	-32.9		308	4.1
250	31	10,960	-42.8		282	2.9
200	31	12,427	-54.5		273	5.6
175	30	13,270	-60.9		280	6.4
150	29	14,215	-67.0		294	4.7
125	28	15,301	-71.6		343	2.9
100	28	16,616	-71.2		53	7.4
80	27	17,945	-67.5		77	14.2
70	27	18,767	-64.0		88	15.9
60	27	19,707	-60.5		87	16.5
50	27	20,851	-57.3		88	20.4
40	26	22,269	-54.5		92	24.3
30	25	24,128	-50.6		90	26.6
25	24	25,322	-49.0		89	28.4
20	24	26,793	-47.0		88	30.7
15	22	28,711	-43.7		84	34.2
10	16	31,451	-38.8		92	40.4
7	10	33,908	-36.2			
5	5	36,228	-32.9			

SPOKANE, WASH.
933 MB

Standard pressure surface (mb.)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind	
					Direction	Speed
SURFACE	31	722	13.3	57	157	4.5
1000	31	126				
950	31	568				
900	31	1,025	17.0	43	190	5.6
850	31	1,511	15.2	40	238	6.6
800	31	2,021	11.5	44	244	6.4
750	31	2,554	7.3	50	249	7.8
700	31	3,120	2.9	50	247	9.7
650	31	3,712	- 1.6	49	256	12.6
600	31	4,348	- 5.7	43	254	15.9
550	31	5,019	-10.1	40	251	19.2
500	31	5,753	-15.0	38	250	22.3
450	31	6,531	-20.8	35	253	24.1
400	31	7,401	-27.4		252	29.3
350	31	8,348	-34.8		251	29.3
300	31	9,407	-42.6		248	36.5
250	31	10,617	-50.1		251	37.9
200	31	12,062	-52.0		251	35.0
175	31	12,930	-51.0		250	31.5
150	31	13,932	-52.1		250	28.6
125	31	15,107	-53.9		255	21.8
100	31	16,536	-55.4		253	13.6
80	31	17,960	-54.8		256	4.7
70	31	18,824	-53.9		123	.6
60	31	19,808	-52.7		87	3.3
50	31	20,987	-51.6		94	8.0
40	31	22,441	-49.7		80	10.9
30	30	24,332	-47.5		86	15.0
25	30	25,541	-42.8		89	15.5
20	27	27,037	-43.2		88	17.7
15	15	29,005	-39.2		88	24.1
10						
7						
5						

SWAN ISLAND, V. I.
1013 MB

Standard pressure surface (mb.)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind	
					Direction	Speed
SURFACE	31	10	26.7	85	63	7.4
1000	31	126	26.3	83	69	11.3
950	31	578	23.6	80	88	17.7
900	31	1,050	20.7	76	97	21.6
850	31	1,543	17.9	71	101	22.5
800	31	2,060	15.0	62	101	23.1
750	31	2,598	12.3	52	100	22.3
700	31	3,181	9.1	47	102	21.4
650	31	3,783	5.7	46	102	18.7
600	31	4,442	2.1	41	103	18.5
550	31	5,130	- 2.1	38	104	15.7
500	31	5,891	- 6.7	38	104	13.8
450	31	6,695	-11.9	34	101	12.0
400	31	7,597	-17.9		92	10.9
350	31	8,582	-24.9		91	9.3
300	31	9,684	-33.1		68	9.1
250	31	10,939	-43.2		39	6.8
200	31	12,402	-55.1		25	5.1
175	31	13,240	-61.8		17	5.8
150	31	14,179	-68.1		47	8.2
125	31	15,261	-72.4		79	14.8
100	31	16,565	-73.5		84	19.8
80	29	17,877	-71.2		87	23.3
70	29	18,669	-68.7		88	25.1
60	29	19,605	-64.4		86	30.1
50	29	20,730	-61.2		87	38.1
40	29	22,124	-58.6		93	44.3
30	28	23,955	-53.4		95	48.6
25	25	25,135	-50.6		92	48.8
20	16	26,597	-48.3		90	56.2
15	7	28,498	-45.5			
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TAMPA, FLA.
1016 MB

Standard pressure surface (mb.)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind	
					Direction	Speed
SURFACE	31	8	25.8	86	204	2.1
1000	31	152	26.0	80	213	4.3
950	31	595	23.6	77	236	7.4
900	31	1,076	20.6	74	236	6.6
850	31	1,568	17.7	69	239	6.2
800	31	2,085	14.7	64	229	5.4
750	31	2,623	11.7	62	225	4.5
700	31	3,204	8.5	61	235	3.7
650	31	3,808	5.1	58	271	2.5
600	31	4,463	1.8	50	318	2.1
550	31	5,153	- 2.1	49	344	3.5
500	31	5,913	- 6.4	42	5	4.5
450	31	6,726	-11.1	42	13	5.4
400	31	7,626	-16.9	35	25	7.4
350	31	8,613	-23.9	32	40	8.2
300	31	9,719	-32.4		38	9.5
250	31	10,977	-42.5		41	12.4
200	31	12,445	-54.5		37	16.5
175	31	13,286	-61.0		40	17.7
150	31	14,228	-67.0		38	17.5
125	30	15,315	-71.3		48	15.7
100	30	16,629	-71.5		60	14.8
80	30	17,959	-67.1		76	17.1
70	30	18,776	-64.4		78	21.4
60	30	19,721	-60.6		84	27.6
50	30	20,867	-56.5		94	30.9
40	30	22,295	-53.1		95	30.5
30	28	24,168	-49.6		89	31.1
25	28	25,367	-48.0		89	33.2
20	26	26,847	-45.7		85	35.9
15	15	28,785	-41.8			
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TATOOSH IS., WASH
1016 MB

Standard pressure surface (mb.)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind	
					Direction	Speed
SURFACE	31	31	11.4	94	203	8.2
1000	31	166	11.5	87	210	6.0
950	31	594	12.3	73	271	4.3
900	31	1,049	11.6	62	296	4.1
850	31	1,525	9.2	57	287	4.5
800	31	2,025	6.9	48	299	6.0
750	31	2,549	4.3	42	294	7.8
700	31	3,111	1.2	35	293	[illegible].4
650	31	3,697	- 2.5	33	288	10.1
600	31	4,334	- 6.6		289	11.7
550	31	5,000	-10.9	31	293	13.0
500	31	5,733	-16.0		288	14.4
450	31	6,508	-22.0		284	16.1
400	31	7,372	-28.9		279	17.9
350	31	8,313	-36.2		281	21.4
300	31	9,364	-44.0		280	24.1
250	31	10,569	-50.5		280	26.4
200	31	12,011	-53.0		275	25.5
175	31	12,874	-51.6		268	20.4
150	31	13,874	-51.7		263	20.8
125	31	15,051	-53.3		259	18.1
100	31	16,484	-54.6		257	9.9
80	31	17,913	-54.0		245	4.3
70	31	18,770	-53.4		218	1.0
60	31	19,764	-52.6		80	2.9
50	31	20,943	-51.7		90	6.8
40	31	22,394	-50.5		90	9.5
30	31	24,278	-48.2		85	13.4
25	31	25,483	-46.6		86	16.3
20	28	26,969	-44.2		88	18.8
15	28	28,913	-40.5		89	22.0
10	26	31,708	-35.0		90	25.5
7	13	34,227	-31.1			

TOPEKA, KANS.
984 MB

Standard pressure surface (mb.)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind	
					Direction	Speed
SURFACE	31	269	20.2	89	133	3.3
1000	31	126				
950	31	574	21.7	66	156	5.4
900	31	1,041	20.2	57	238	6.4
850	31	1,532	17.9	53	258	10.3
800	31	2,049	15.1	53	269	13.2
750	31	2,592	11.5	54	266	15.0
700	31	3,167	7.7	54	270	15.7
650	31	3,773	3.6	56	276	15.9
600	31	4,419	- .5	51	281	16.5
550	31	5,107	- 4.4	45	277	15.2
500	31	5,856	- 8.8	38	277	18.1
450	31	6,666	-13.5	37	278	22.0
400	31	7,553	-19.3	34	281	25.3
350	31	8,532	-26.4		280	29.3
300	31	9,629	-34.4		278	39.1
250	31	10,878	-44.3		276	47.2
200	31	12,339	-55.1		276	48.6
175	31	13,182	-60.0		276	46.0
150	31	14,135	-64.3		277	35.9
125	31	15,243	-67.1		282	26.0
100	30	16,587	-66.9		290	15.2
80	30	17,944	-63.9		344	4.7
70	30	18,774	-61.8		49	4.7
60	30	19,728	-58.7		75	9.3
50	30	20,880	-55.7		86	12.6
40	30	22,310	-53.0		88	14.4
30	29	24,174	-50.7		90	19.0
25	27	25,366	-48.6		88	21.0
20	16	26,840	-46.0		86	22.9
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TRUK, CAROLINE IS.
1009 MB

Standard pressure surface (mb.)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind	
					Direction	Speed
SURFACE	31	2	26.5	86	284	.6
1000	31	77	26.4	84	229	.6
950	31	524	23.9	84	185	1.0
900	31	1,004	21.0	84	180	.6
850	30	1,499	18.4	83	120	1.0
800	30	2,018	15.7	82	117	6.6
750	30	2,566	13.1	79	116	4.5
700	30	3,144	10.1	77	119	5.6
650	30	3,757	6.6	77	111	7.8
600	30	4,412	2.8	80	108	9.1
550	30	5,107	- .9	80	106	9.5
500	30	5,868	- 5.3	78	102	10.3
450	30	6,685	- 9.8	74	101	9.9
400	30	7,591	-15.4	65	104	9.7
350	30	8,586	-22.2	53	103	10.3
300	30	9,701	-30.6	50	105	11.3
250	29	10,970	-40.9		83	8.7
200	29	12,446	-53.7		64	6.6
175	29	13,290	-61.0		62	7.6
150	29	14,230	-68.8		65	5.1
125	29	15,299	-76.6		62	4.7
100	25	16,567	-79.7		92	5.8
80	17	17,855	-71.6		89	8.2
70	17	18,648	-68.5		89	8.0
60	15	19,581	-65.3		75	8.5
50	15	20,698	-62.6		85	16.3
40	14	22,088	-59.7		90	36.3
30	14	23,906	-55.2		94	58.1
25	14	25,076	-52.9		94	65.9
20	12	26,518	-50.5		95	64.9
15	11	28,406	-47.0		93	78.9
10	11	31,127	-41.7			
7	6	33,587	-39.8			

TUCSON, ARIZ.
924 MB

Standard pressure surface (mb.)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind	
					Direction	Speed
SURFACE	31	789	24.0	52	162	6.4
1000	31	89				
950	31	542				
900	31	1,020	25.8	43	179	4.5
850	31	1,521	23.1	42	256	1.2
800	31	2,047	19.5	46	332	2.7
750	31	2,594	15.3	52	349	2.9
700	31	3,180	10.8	58	29	1.9
650	31	3,789	6.3	62	87	1.6
600	31	4,446	1.8	66	100	4.1
550	31	5,135	- 2.6	66	111	4.3
500	31	5,893	- 7.3	59	192	1.0
450	31	6,703	-12.1	46	238	3.7
400	31	7,601	-17.8	40	242	7.6
350	31	8,585	-24.8		227	10.7
300	31	9,686	-33.1	37	219	14.8
250	31	10,940	-43.2		211	20.2
200	30	12,403	-54.7		217	26.6
175	30	13,246	-60.4		226	24.5
150	30	14,194	-65.2		232	16.5
125	30	15,292	-69.2		221	8.5
100	30	16,618	-70.1		140	3.1
80	30	17,955	-66.4		98	11.7
70	30	18,782	-62.8		98	14.0
60	30	19,726	-60.2		91	17.7
50	30	20,872	-56.9		90	23.9
40	30	22,297	-53.6		86	24.5
30	29	24,158	-50.9		89	26.6
25	27	25,352	-48.5		87	28.6
20	27	26,826	-46.5		88	30.9
15	26	28,749	-43.1		87	35.2
10	24	31,510	-37.3		88	41.4
7	13	33,968	-32.5		92	43.5

WAKE IS., PACIFIC AREA
1013 MB

Standard pressure surface (mb.)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind	
					Direction	Speed
SURFACE	31	5	27.3	82	85	8.2
1000	31	120	26.5	82	89	12.6
950	31	573	23.4	81	100	15.3
900	31	1,045	20.4	79	103	14.6
850	31	1,538	17.6	76	101	14.2
800	31	2,055	14.8	76	98	12.4
750	31	2,596	12.0	73	98	11.5
700	31	3,176	8.8	64	99	9.5
650	31	3,781	5.5	59	100	9.3
600	31	4,438	1.9	55	97	8.7
550	31	5,130	- 2.2	50	109	6.2
500	31	5,888	- 6.4	48	96	5.2
450	30	6,698	-11.6	44	74	4.1
400	30	7,598	-17.5	41	79	4.1
350	30	[illegible],584	-24.5		83	3.3
300	30	9,687	-33.1		340	2.5
250	30	10,942	-43.4		297	4.9
200	29	12,402	-55.5		297	11.9
175	29	13,241	-62.0		295	14.4
150	29	14,178	-68.[illegible]		294	15.5
125	28	15,251	-74.3		310	10.7
100	27	16,551	-72.8		39	8.4
80	26	17,871	-69.3		78	17.5
70	26	18,672	-66.3		81	22.9
60	25	19,612	-63.4		83	27.2
50	25	20,740	-60.2		88	32.6
40	25	22,142	-56.9		85	38.3
30	24	23,981	-52.[illegible]		87	45.1
25	23	25,165	-50.4		90	49.2
20	20	26,633	-48.1		88	52.1
15	19	28,537	-46.5		87	56.3
10	16	31,253	-41.9		90	64.9
7	9	33,700	-37.8			

WASHINGTON, D. C.
1006 MB

Standard pressure surface (mb.)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind	
					Direction	Speed
SURFACE	31	84	17.3	89	245	.6
1000	31	132	18.0	85	270	1.9
950	31	576	19.0	72	293	5.6
900	31	1,038	16.1	70	300	7.2
850	31	1,522	13.0	69	298	10.5
800	31	2,031	10.1	64	294	12.2
750	31	2,568	7.7	55	291	15.7
700	31	3,132	5.1	49	283	18.5
650	31	3,735	1.9	40	281	20.8
600	31	4,376	- 1.5	38	282	23.7
550	31	5,061	- 5.4	35	281	26.0
500	31	5,807	- 9.9		282	28.4
450	31	6,610	-14.8		280	30.9
400	31	7,494	-21.3		283	36.5
350	31	8,466	-27.8		284	41.2
300	31	9,557	-35.7		285	48.6
250	31	10,800	-45.0		287	53.6
200	31	12,260	-54.2		294	56.3
175	31	13,108	-58.2		294	52.5
150	31	14,072	-61.3		294	45.1
125	31	15,196	-63.7		286	31.7
100	31	16,563	-63.5		289	21.0
80	31	17,941	-60.6		300	9.3
70	30	18,787	-59.0		329	3.3
60	30	19,748	-56.5		56	4.9
50	29	20,909	-54.7		87	10.3
40	29	22,343	-52.4		89	13.2
30	26	24,209	-49.7		81	16.5
25	25	25,410	-47.7		85	18.8
20	21	26,891	-45.2		82	19.2
15	10	28,836	-42.7			
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WINNEMUCCA, NEV.
870 MB

Standard pressure surface (mb.)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind	
					Direction	Speed
SURFACE	30	1,310	13.1	34	54	1.4
1000	30	111				
950	30	552				
900	30	1,021				
850	30	1,509	18.4	25	354	2.1
800	30	2,028	17.1	27	308	2.9
750	30	2,567	13.3	30	303	4.5
700	30	3,151	8.8	35	276	5.1
650	30	3,752	3.9	34	237	7.8
600	30	4,404	- .9	44	227	11.9
550	30	5,081	- 6.4	45	233	12.4
500	30	5,830	-11.9	41	241	18.5
450	30	6,620	-17.5		247	18.7
400	30	7,500	-23.9		251	21.0
350	30	8,460	-31.4		250	25.5
300	30	9,533	-39.6		249	28.8
250	30	10,756	-48.3		247	35.6
200	29	12,202	-54.8		249	41.4
175	29	13,053	-56.2		248	42.0
150	28	14,025	-58.5		249	36.3
125	27	15,163	-60.7		253	27.2
100	22	16,547	-61.2		255	18.1
80	20	17,941	-60.2		209	2.9
70	20	18,778	-58.7		136	2.1
60	20	19,748	-57.0		91	4.5
50	20	20,908	-54.8		86	9.7
40	18	22,342	-52.9		82	13.8
30	17	24,208	-50.1		87	16.1
25	16	25,400	-48.6		84	18.1
20	13	26,878	-45.7		85	20.0
15	9	28,820	-41.6			
10	5	31,596	-39.2			
7						

WINSLOW, ARIZ.
853 MB

Standard pressure surface (mb.)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind	
					Direction	Speed
SURFACE	31	1,492	18.4	44	200	3.7
1000	31	102				
950	31	554				
900	31	1,026				
850	31	1,524	19.2	43	212	3.5
800	31	2,049	20.7	33	276	8.5
750	31	2,596	16.8	35	286	9.3
700	31	3,186	12.1	41	268	5.4
650	31	3,797	7.1	49	222	4.1
600	31	4,455	1.5	59	184	6.4
550	31	5,143	- 3.7	60	192	9.1
500	31	5,896	- 8.6	50	215	10.9
450	31	6,701	-13.3		241	13.2
400	31	7,594	-19.3		244	17.3
350	31	8,574	-26.0		240	22.3
300	31	9,670	-34.2		236	28.6
250	31	10,920	-43.8		230	36.7
200	31	12,382	-54.7		231	37.5
175	31	13,225	-60.1		235	34.8
150	29	14,179	-64.6		240	24.3
125	29	15,282	-68.4		233	13.2
100	29	16,614	-69.5		204	5.8
80	28	17,954	-66.1		120	5.4
70	28	18,781	-63.2		99	7.8
60	28	19,725	-60.3		92	11.3
50	28	20,870	-57.2		89	16.1
40	28	22,292	-54.4		89	19.8
30	28	24,148	-51.4		91	22.7
25	28	25,336	-49.4		91	22.7
20	28	26,806	-47.2		87	24.9
15	27	28,724	-43.8		87	28.0
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See reference note at end of table

RAWINSONDE DATA

Average monthly values

Standard pressure surface (mb.)	YAKUTAT, ALASKA 1019 MB						YUMA, ARIZ. 993 MB					
	Number of observations	Dynamic height	Temperature	Relative humidity	Wind		Number of observations	Dynamic height	Temperature	Relative humidity	Wind	
					Direction	Speed					Direction	Speed
SURFACE	31	12	9.7	97	85	1.6	31	131	27.2	36	61	.6
1000	31	169	9.9	94	96	3.1	31	71				
950	31	593	8.6	87	132	4.9	31	525	29.1	29	231	4.1
900	31	1,042	7.3	78	145	5.2	31	1,007	27.1	27	230	5.4
850	31	1,512	5.5	73	149	3.9	31	1,509	23.9	29	225	6.2
800	31	2,006	3.0	73	149	4.7	31	2,034	19.7	33	210	6.6
750	31	2,523	.3	67	146	6.6	31	2,579	15.1	40	186	8.4
700	31	3,078	- 2.9	65	147	5.8	31	3,165	10.3	46	170	9.5
650	31	3,655	- 6.4	60	162	5.4	31	3,771	5.6	49	176	9.9
600	31	4,285	-10.1	57	163	5.4	31	4,426	1.1	46	179	11.1
550	31	4,943	-14.3	51	162	5.2	31	5,114	- 3.4	35	208	8.0
500	31	5,668	-19.0	48	157	4.9	31	5,867	- 7.9		253	7.0
450	31	6,435	-24.5	46	153	5.4	31	6,669	-13.3		257	9.3
400	31	7,293	-30.9	45	141	7.0	31	7,564	-19.5		252	13.8
350	31	8,227	-38.1		124	8.0	31	8,543	-26.6		245	17.5
300	31	9,270	-46.2		121	8.9	31	9,637	-34.9		235	22.5
250	31	10,464	-51.8		112	8.4	31	10,884	-44.3		228	28.6
200	31	11,909	-51.5		121	6.2	30	12,345	-55.0		222	29.7
175	31	12,779	-49.9		140	2.9	29	13,189	-60.3		224	29.3
150	31	13,788	-49.5		146	1.9	29	14,138	-65.3		232	23.1
125	31	14,983	-49.4		182	1.4	29	15,237	-68.5		246	15.3
100	31	16,445	-49.7		170	1.4	28	16,568	-69.6		212	2.7
80	31	17,906	-49.4		82	1.4	24	17,907	-66.4		108	8.2
70	31	18,781	-49.2		92	3.3	24	18,730	-63.2		97	13.2
60	31	19,793	-48.8		92	5.1	24	19,677	-60.0		92	17.9
50	31	20,992	-48.3		83	7.8	24	20,823	-57.4		93	21.0
40	31	22,464	-47.5		85	10.3	24	22,244	-54.2		88	22.2
30	29	24,373	-46.1		86	13.8	23	24,098	-51.7		90	27.8
25	29	25,589	-44.7		85	14.8	21	25,283	-49.7		85	30.5
20	29	27,089	-42.6		88	18.1	21	26,752	-47.0		85	31.9
15	29	29,045	-39.6		90	20.2	19	28,671	-43.4		89	33.8
10	9	31,852	-35.6				10	31,409	-38.2			

Note: All observations scheduled at 1200, G. C. T. Pressures shown under station names are the average monthly station pressures for the month of record, corrected to the height of the floors of the instrument shelters used for rawinsonde purposes. "Number of observations" refers to those of dynamic height only. Although the number of temperature observations at any given pressure surface is usually the same as for height, it is possible for temperature to be missing for one or more pressure surfaces of some observations. Relative humidity averages are limited to those observations with temperatures warmer than -40°C. Observations of wind speed and direction are sometimes lost due to limiting angles, i. e., elevation angles less than 6° above the horizon, or any obstruction above the horizon.

The temperature and wind values are based on 15 or more observations at the surface or 5 observations at a standard pressure level for temperature and 10 for wind. Relative humidity data are not published for standard pressure surfaces for which less than 16 observations are available.

Relative humidity data are computed and expressed on the basis of vapor pressure over water. Unless otherwise indicated, they are obtained from lithium chloride hygristors.

These average values for standard pressure surfaces were obtained by rawinsondes, dynamic height (geopotential) in units of .98 dynamic meter, temperature in degrees Celsius, relative humidity in percent, and resultant winds in degrees and knots.

SOLAR RADIATION DATA

Solar radiation intensities, tabulated in langleys per minute on a surface normal to the direction of the sun.

JULY 1962

Date	Sun's zenith distance								
	A M				*	P M			
	78.7°	75.7°	70.7°	60.0°		60.0°	70.7°	75.7°	78.7°
	BLUE HILL OBS., MASS.								
	Air mass								
	4.89	3.92	2.94	1.96	*	1.96	2.94	3.92	4.89
July									
2-----	0.71	0.81	0.91	1.06	1.23	1.03	0.89	0.79	0.70
3-----	.66	.75	.86	.99	1.21	.99	.87	.76	.67
4-----	.74	.82	.93	1.06	----	----	----	----	----
5-----	.75	.82	.91	----	----	.92	.78	.70	.62
6-----	.77	.84	.94	1.06	1.18	----	----	----	----
7-----	----	----	----	.93	1.16	.95	.82	.74	.65
10----	.52	.61	.74	.96	1.18	.96	.77	.65	.58
11----	.53	.60	.74	.89	----	.91	.74	.62	.53
12----	.51	.60	.71	.85	----	----	----	----	----
14----	.57	.65	.79	.94	----	----	----	----	----
16----	----	----	----	----	----	----	.59	.48	.42
19----	----	----	.56	.87	1.11	.85	.69	.59	.50
20----	.67	.77	.88	1.03	1.18	.90	.75	.64	.53
25----	.70	.78	.84	.98	----	----	----	----	----
27----	.72	.79	.88	1.01	----	----	----	.65	.58
28----	.74	.83	.96	1.10	1.25	----	----	----	----
Aver-ages	0.66	0.74	0.83	0.98	1.19	0.94	0.77	0.66	0.58
	ALBUQUERQUE, N. MEX.								
	Air mass								
	4.19	3.35	2.51	1.67	*	1.67	2.51	3.35	4.19
July									
1-----	0.69	(0.55)	0.93	1.11	1.41	(1.15)	(0.81)	----	----
2-----	.78	.84	.98	1.14	1.35	----	----	----	----
3-----	.76	.84	.97	1.15	1.35	----	----	----	----
4-----	----	----	----	----	1.33	----	----	----	----
7-----	----	----	----	----	1.37	----	----	----	----
9-----	----	----	----	----	1.33	----	----	----	----
11----	----	----	----	----	1.35	1.09	----	----	----
12----	----	----	----	----	1.34	----	----	----	----
14----	.85	.94	1.07	1.24	1.42	1.21	1.04	----	----
15----	.96	1.05	1.17	1.31	1.47	1.28	1.12	0.97	0.88
16----	.82	.91	1.04	1.18	1.42	1.13	.97	.85	.76
17----	(.47)	(.62)	(.76)	(.96)	1.30	----	----	----	----
18----	.79	.87	1.01	1.14	1.37	(1.12)	----	----	----
20----	.82	.89	1.01	1.14	1.34	----	----	----	----
21----	----	----	----	1.17	----	----	----	----	----
24----	----	----	1.01	(1.13)	1.33	----	----	----	----
25----	----	----	----	1.17	1.36	----	----	----	.81
26----	.74	.85	.99	1.11	1.35	----	1.03	.90	----
27----	.67	.79	.95	1.14	1.37	----	----	----	----
28----	.73	----	----	----	1.29	----	----	----	----
31----	----	----	----	----	1.39	----	----	----	----
Aver-ages	0.78	0.89	1.01	1.17	1.36	1.18	1.04	0.91	0.82

( ) Clouds present
* Values corresponding to true solar noon

Date	Sun's zenith distance								
	A. M.				*	P. M.			
	78.7°	75.7°	70.7°	60.0°		60.0°	70.7°	75.7°	78.7°
	MAUNA LOA OBS., HAWAII								
	Air mass								
	3.36	2.69	2.01	1.34	*	1.34	2.01	2.69	3.36
July									
2-----	1.22	1.27	1.36	1.47	----	----	----	----	----
3-----	1.21	1.28	1.36	1.48	----	----	1.34	1.25	1.18
6-----	----	----	----	----	----	1.44	----	----	----
7-----	----	----	----	----	----	1.45	----	1.25	1.18
8-----	1.27	1.34	1.42	1.52	1.61	----	----	----	----
11----	1.19	1.28	1.37	1.48	1.57	1.41	1.31	1.23	1.15
12----	1.18	1.27	1.34	1.45	----	----	----	----	----
13----	----	1.27	----	1.46	----	----	----	----	----
14----	1.19	1.27	1.35	1.45	----	----	----	----	----
15----	1.19	1.26	1.35	1.45	----	----	----	1.22	1.15
16----	1.19	1.28	1.36	1.46	----	----	----	----	----
19----	1.19	1.27	1.35	1.47	1.59	----	----	----	----
21----	1.22	1.29	1.37	1.47	----	1.39	1.29	1.20	1.12
22----	1.20	1.26	1.34	1.45	----	----	----	----	----
23----	----	----	----	1.46	----	1.38	1.26	1.18	----
24----	----	----	----	1.45	----	----	----	----	----
26----	1.20	1.28	1.36	1.46	1.56	1.43	1.33	1.23	1.15
27----	1.22	1.30	1.37	1.48	1.57	1.41	1.29	1.21	1.13
28----	1.14	1.21	1.30	1.42	1.58	1.45	1.32	1.23	1.15
29----	1.19	1.25	1.34	1.46	1.58	1.44	1.32	1.24	1.16
30----	1.22	1.29	1.37	1.46	1.61	1.47	1.36	1.28	----
31----	1.17	1.25	1.33	1.43	1.56	----	1.25	1.15	1.07
Aver-ages	1.20	1.27	1.36	1.46	1.58	1.43	1.31	1.22	1.14
	TUCSON, ARIZ.								
	Air mass								
	4.56	3.65	2.74	1.83	*	1.83	2.74	3.65	4.56
July									
5-----	----	----	----	1.14	----	----	----	----	----
6-----	----	----	----	----	----	1.23	1.08	0.97	0.89
7-----	----	----	----	----	----	1.14	1.06	----	.87
11----	----	----	----	----	----	----	.91	.78	.66
12----	----	----	----	----	----	1.17	1.04	.92	.85
	Recorder removed from service July 12.								
Aver-ages	----	----	----	1.14	----	1.14	1.02	0.89	0.82
	GUAM, M. I.								
	Air mass								
	4.92	3.93	2.95	1.97	*	1.97	2.95	3.93	4.92
	No observations due to cloudiness								

Langley is the unit used to denote one gram calorie per square centimeter. An explanation of the formula used in computing the air mass values for each station listed above appears in the February 1957 issue, Vol. 8, No. 2, page 63, of this publication.

SOLAR RADIATION DATA

Daily totals and weekly averages of solar radiation (direct and diffuse) received on a horizontal surface, tabulated in langleys.

JULY 1962

1962	Albuquerque, N.Mex.	Ames, Iowa	Annette, Alaska	Apalachicola, Fla.	Astoria, Oreg.	Barrow, Alaska	Bethel, Alaska	Bismarck, N. Dak.	Blue Hill Obs., Mass.	Boise, Idaho	Boston, Mass.	Brownsville, Tex.	Canton Island, Pacific Area	Caribou, Maine	Charleston, S. C.	Cleveland, Ohio	Columbia, Mo.	Corvallis, Oreg.
July 2----	730	568	518	682	760	289	779	554	657	646	781	730	---	453	600	250	655	---
July 3----	692	692	375	605	661	623	769	354	605	785	723	---	---	591	631	261	677	---
July 4----	656	410	779	438	292	645	586	622	594	750	703	736	---	275	---	518	712	---
July 5----	414	452	767	378	398	800	415	545	558	742	518	708	---	316	452	668	478	---
July 6----	---	654	598	669	538	539	340	538	639	781	758	688	---	180	596	551	480	---
July 7----	710	644	365	410	780	450	162	609	635	789	750	692	---	399	317	583	222	---
July 8----	---	740	630	653	240	442	370	773	550	767	643	624	---	688	501	461	727	---
Average------	640	594	576	548	524	541	489	571	605	752	697	696	---	415	516	470	565	---
July 9----	652	718	279	622	241	651	404	513	162	651	304	729	---	423	591	246	660	---
July 10----	698	593	379	713	529	505	710	646	642	726	756	721	---	129	700	680	574	---
July 11----	717	469	134	712	664	488	348	---	564	---	707	715	---	360	605	574	488	---
July 12----	532	499	241	664	288	516	340	650	363	586	419	723	---	382	287	541	725	801
July 13----	661	82	465	602	355	378	536	512	373	742	397	713	---	52	453	595	567	320
July 14----	762	154	242	686	196	498	764	121	568	763	666	699	---	100	563	110	592	574
July 15----	779	283	209	655	496	---	396	311	412	763	567	653	---	89	626	476	584	729
Average------	686	400	279	665	395	506	500	459	440	705	545	707	---	219	546	460	611	606
July 16----	754	325	735	603	390	432	745	587	188	757	249	704	---	727	598	496	640	766
July 17----	553	588	381	370	493	722	633	698	255	752	316	698	---	700	525	591	559	743
July 18----	732	546	429	558	474	641	720	401	253	702	308	616	---	380	535	632	570	751
July 19----	(635)	265	143	564	674	588	565	685	580	750	626	654	---	622	626	625	694	742
July 20----	694	592	419	(567)	730	257	600	---	609	740	688	702	---	588	433	349	446	736
July 21----	527	478	566	451	691	---	265	688	250	740	302	716	---	121	332	502	738	719
July 22----	576	617	511	502	676	---	625	714	408	731	568	704	535	697	634	480	606	734
Average------	(639)	487	455	(516)	590	528	593	629	363	739	437	685	---	548	526	525	608	742
July 23----	---	702	631	516	518	691	527	635	226	630	259	712	514	723	619	461	699	719
July 24----	621	678	692	699	496	267	184	723	181	490	192	713	488	---	617	572	183	716
July 25----	674	706	702	687	513	534	190	695	522	568	531	727	282	684	622	421	713	719
July 26----	634	650	704	521	650	392	190	711	263	531	290	710	540	119	641	337	701	724
July 27----	647	305	705	683	617	153	370	661	410	677	477	702	(467)	---	653	669	666	720
July 28----	576	229	669	521	620	333	513	607	620	720	680	705	283	629	586	468	570	664
July 29----	547	621	600	429	242	197	589	629	483	518	514	701	(513)	503	422	444	500	736
Average------	617	556	672	579	522	367	366	666	386	591	420	710	(441)	531	594	482	576	714
July 30----	---	550	528	419	355	181	691	712	578	495	643	688	529	298	399	481	673	713
July 31----	---	660	494	490	160	165	406	---	356	672	373	681	553	302	565	435	624	602
Aug. 1----	683	356	136	539	281	363	549	677	231	443	338	692	583	166	665	608	564	329
Aug. 2----	717	568	450	616	253	370	176	530	651	553	658	679	463	693	413	622	688	496
Aug. 3----	698	424	513	609	333	236	158	640	596	527	595	698	443	661	441	583	646	321
Aug. 4----	726	568	568	561	305	232	171	608	576	457	530	667	457	542	424	421	441	380
Aug. 5----	728	311	353	530	208	173	284	585	622	614	627	634	415	116	554	301	325	409
Average------	710	491	435	538	271	246	348	625	516	537	538	677	492	397	494	493	566	464

1962	Davis, Calif.	East Lansing, Mich.	El Paso, Tex.	Ely, Nev.	Fairbanks, Alaska	Flaming Gorge, Utah	Fort Worth, Tex.	Glasgow, Mont.	Grand Junction, Colo.	Great Falls, Mont.	Greensboro, N. C.	Griffin, Ga.	Cape Hatteras, N.C.	Indianapolis, Ind.	Inyokern China Lake, Calif.	Ithaca, New York	Lake Charles, La.	Lander, Wyo.
July 2----	786	143	715	837	576	793	719	679	739	771	323	714	710	380	930	730	322	729
July 3----	780	251	734	830	614	686	760	363	725	652	313	427	---	422	914	723	642	690
July 4----	781	752	604	802	722	735	750	745	820	595	150	622	(240)	514	911	706	620	758
July 5----	772	627	448	813	633	726	752	637	822	370	585	558	---	---	887	623	641	747
July 6----	784	671	508	807	663	531	763	567	733	551	527	132	722	572	890	634	649	748
July 7----	785	689	733	809	526	632	747	592	692	738	486	519	734	552	901	681	634	672
July 8----	788	620	747	814	399	488	751	778	737	719	598	508	---	415	918	619	679	545
Average------	782	536	641	816	591	656	749	623	753	628	426	497	(602)	476	907	674	598	698
July 9----	764	726	730	808	349	632	685	627	---	528	673	810	722	741	927	292	617	573
July 10----	671	744	697	---	533	---	721	732	794	682	774	774	785	726	928	723	---	620
July 11----	610	656	480	732	589	772	730	726	778	715	629	697	785	497	874	430	---	640
July 12----	754	449	638	568	224	379	740	715	417	367	572	475	727	609	872	190	---	492
July 13----	732	506	527	583	455	567	751	297	608	125	703	693	708	489	892	631	---	549
July 14----	751	513	753	775	680	477	(751)	114	799	474	607	730	639	446	885	523	564	396
July 15----	754	394	783	601	527	505	722	736	729	550	702	481	726	258	888	714	560	648
Average------	719	570	658	678	480	555	(728)	564	688	491	666	666	727	538	895	500	---	560
July 16----	743	652	696	638	688	429	279	357	738	680	593	457	603	487	879	700	399	707
July 17----	734	333	720	797	698	659	584	737	649	636	514	661	573	566	911	258	615	643
July 18----	754	674	656	807	673	595	357	326	461	398	545	629	726	656	912	439	448	739
July 19----	751	611	493	819	675	713	697	695	758	669	612	684	699	690	906	695	619	659
July 20----	754	170	701	---	588	710	658	540	848	372	626	662	752	497	822	387	429	728
July 21----	748	598	635	517	117	722	345	700	844	586	633	728	516	631	710	378	559	714
July 22----	746	270	731	355	213	605	629	630	738	669	719	733	680	298	808	574	532	496
Average------	747	472	662	656	522	633	507	569	719	573	606	651	650	546	850	490	514	669
July 23----	736	394	605	441	537	404	431	761	279	641	502	723	760	608	812	209	561	390
July 24----	749	530	692	490	116	586	575	672	574	---	688	438	722	446	862	621	597	578
July 25----	737	609	542	599	197	479	577	726	639	616	182	392	274	619	874	586	594	422
July 26----	721	562	569	602	---	590	123	637	764	456	738	594	619	609	854	428	325	540
July 27----	725	654	574	697	265	628	126	474	777	507	778	786	767	643	738	485	459	313
July 28----	741	193	536	397	---	603	511	626	883	518	714	361	724	590	804	449	532	499
July 29----	729	300	508	595	391	525	715	558	757	271	232	348	463	400	837	145	590	562
Average------	734	463	575	546	301	545	437	636	668	502	548	520	619	559	826	418	522	472
July 30----	734	462	717	691	470	430	720	719	720	651	411	626	609	---	885	374	610	445
July 31----	726	723	723	689	601	353	718	712	737	636	510	757	671	620	889	405	541	471
Aug. 1----	718	667	571	759	596	415	658	628	---	570	690	672	570	629	872	626	596	663
Aug. 2----	712	588	622	765	422	545	164	642	812	609	320	639	635	586	873	668	487	640
Aug. 3----	714	445	702	760	459	427	516	645	422	462	116	506	445	627	872	621	594	497
Aug. 4----	730	555	661	778	184	714	686	615	802	399	461	550	691	573	873	431	468	690
Aug. 5----	732	569	745	678	345	613	674	584	841	599	596	704	689	580	865	365	592	484
Average------	724	573	677	731	440	500	591	649	722	561	443	636	616	602	876	499	555	556

Note.--Langley is the unit used to denote one gram calorie per square centimeter.
Values in parentheses are interpolated.

SOLAR RADIATION DATA

Daily totals and weekly averages of solar radiation (direct and diffuse) received on a horizontal surface, tabulated in langleys.

1962	Laramie, Wyo.	Las Vegas, Nev.	Lemont, Ill.	Little Rock, Ark.	Los Angeles, Calif.	Los Angeles, Calif. (Urban)	Manhattan, Kans.	Matanuska, Alaska	Mauna Loa Obs., Hawaii	Medford, Oreg.	Miami, Fla.	Midland, Tex.	Nashville, Tenn.	Newport, R. I.	North Omaha, Nebr.	Oak Ridge, Tenn.	Oklahoma City, Okla.	Page, Ariz.	Prosser, Wash.	Rapid City, S. Dak.	Riverside, Calif.	St. Cloud, Minn.	Salt Lake City, Utah	San Antonio, Tex.	Santa Maria, Calif.	Sayville, N. Y.	Seattle, Wash.	Seattle-Tacoma, Wash.	Shreveport, La.	Spokane, Wash.	State College, Pa.	Stillwater, Okal.	Swan Island, W. I.	Tampa, Fla.	Tucson, Ariz.	Washington, D. C. (Obs & Test Dev Ctr)
July 2----	559	802	118	617	731	766	560	553	576	775	381	632	572	742	691	526	651	712	698	415	820	(138)	799	---	801	---	696	(756)	430	667	719	677	604	703	409	549
July 3----	577	795	342	667	707	736	674	621	743	787	431	690	430	726	616	256	711	690	718	497	799	537	814	637	737	607	675	(717)	570	720	198	660	578	607	504	81
July 4----	584	783	325	693	676	748	498	691	774	756	394	674	469	690	463	511	712	725	348	524	773	202	804	684	753	630	318	(251)	530	319	788	633	318	685	582	352
July 5----	675	773	379	653	689	705	181	681	---	781	446	382	248	608	627	403	639	741	737	466	759	421	800	---	735	510	266	316	533	601	762	649	330	488	725	732
July 6----	608	762	580	634	695	738	547	688	759	786	373	749	552	611	713	229	709	735	715	635	775	365	797	---	717	442	368	492	515	492	722	558	(227)	706	736	536
July 7----	527	788	625	676	727	767	362	257	739	756	520	754	435	701	652	360	725	687	724	430	782	413	758	587	742	612	735	754	514	792	657	665	546	695	752	687
July 8----	467	795	669	611	735	753	679	279	797	747	479	752	405	627	756	211	690	740	646	711	776	687	799	597	693	515	555	656	554	772	653	595	602	547	417	648
Average------	571	785	434	650	709	745	500	539	731	770	432	662	445	672	645	357	691	718	655	525	783	(395)	796	626	740	553	516	(563)	521	623	643	634	(458)	633	589	512
July 9----	541	780	740	598	720	726	423	136	789	763	327	659	695	149	729	681	545	730	720	547	778	678	767	676	696	310	189	224	494	717	519	362	599	584	685	634
July 10----	536	799	686	293	706	736	638	355	745	752	235	539	618	732	652	686	675	726	666	602	765	677	786	---	755	686	511	(462)	430	731	803	632	597	477	426	766
July 11----	733	763	277	591	676	704	452	481	777	432	(263)	672	---	539	---	587	655	582	711	569	765	741	795	679	675	515	552	546	554	722	683	641	539	560	595	713
July 12----	397	727	637	664	680	541	494	403	602	735	282	727	---	388	---	578	685	710	699	461	710	750	686	679	533	273	290	359	526	621	288	625	549	480	713	414
July 13----	352	723	290	638	483	503	490	610	572	763	411	698	655	527	---	618	702	721	714	206	593	452	---	685	691	567	256	235	547	657	730	664	(464)	610	688	701
July 14----	545	764	307	670	532	624	494	369	466	761	621	433	639	595	518	619	667	668	737	512	713	468	786	670	673	234	410	471	548	690	113	609	628	714	770	244
July 15----	676	760	105	655	322	388	581	238	777	763	408	613	622	436	563	612	256	648	700	749	563	122	676	607	664	626	539	624	507	720	659	307	590	665	744	404
Average------	540	760	435	587	588	603	510	370	675	710	(364)	620	646	481	615	626	598	684	707	521	698	555	749	666	670	459	392	(417)	515	694	542	549	(567)	584	660	554
July 16----	514	772	158	398	364	519	663	550	788	761	554	391	600	224	673	507	557	716	701	525	642	306	766	627	624	244	352	(633)	498	767	570	554	613	660	740	81
July 17----	555	772	501	---	361	511	666	545	406	696	476	231	567	348	582	582	643	439	726	550	661	598	---	595	506	344	410	(547)	431	758	370	612	620	454	707	383
July 18----	598	752	626	---	485	630	324	655	422	762	687	436	645	387	635	650	638	538	708	656	705	694	---	651	700	208	503	568	518	766	532	665	568	466	674	298
July 19----	497	752	534	658	672	731	661	453	800	740	322	688	628	662	651	649	650	626	651	504	770	508	771	658	627	605	673	(691)	640	757	646	656	533	457	628	681
July 20----	722	679	356	549	662	718	678	191	763	711	640	688	622	655	639	598	536	684	717	706	712	627	767	662	713	544	670	(708)	538	756	446	296	629	239	578	634
July 21----	661	659	629	526	687	710	620	295	777	720	666	616	629	325	600	542	691	600	712	698	444	718	744	614	672	387	683	713	362	750	386	634	594	385	597	470
July 22----	669	417	468	650	666	697	483	635	571	667	670	655	625	375	699	646	673	552	697	710	742	431	563	651	698	344	673	714	552	752	611	658	573	711	578	644
Average------	602	686	467	556	557	645	585	475	647	722	574	529	617	425	640	596	627	594	702	621	668	554	722	637	648	382	566	(654)	506	758	509	582	590	482	643	456
July 23----	314	701	512	429	601	650	609	459	768	702	641	634	538	135	663	396	213	577	697	465	724	505	530	672	661	248	606	709	449	707	292	326	559	606	511	---
July 24----	622	710	592	307	556	634	425	379	760	675	608	527	360	403	667	489	234	676	665	718	725	670	592	671	708	493	662	703	592	649	717	130	481	651	---	573
July 25----	565	721	683	142	534	680	675	248	---	708	651	316	242	598	732	138	421	627	589	636	723	580	502	649	669	416	664	713	615	500	633	599	622	619	573	234
July 26----	358	657	644	635	545	644	420	385	---	713	669	267	677	444	634	590	579	619	666	240	696	742	695	667	697	408	662	688	241	498	464	620	580	664	658	673
July 27----	555	522	600	640	570	659	476	619	---	699	674	490	675	599	436	689	356	587	635	541	707	519	770	583	696	573	664	676	204	659	574	487	53	437	504	717
July 28----	483	669	103	332	607	707	470	617	712	703	589	696	409	657	275	393	127	700	611	403	736	425	752	669	659	597	660	683	559	684	714	306	524	338	481	670
July 29----	650	680	164	332	701	713	515	597	718	696	578	625	451	525	664	406	450	652	672	684	756	638	632	671	674	452	655	639	611	708	369	264	628	513	543	308
Average------	507	666	471	402	588	670	513	472	739	699	630	508	479	480	582	443	340	634	648	527	724	583	639	655	680	455	653	687	467	629	537	390	492	547	545	529
July 30----	488	728	548	587	695	747	589	217	727	708	492	714	341	629	697	376	545	605	670	557	767	639	598	661	674	538	526	544	---	665	495	298	631	525	625	351
July 31----	485	729	668	545	680	737	595	286	714	541	584	710	492	226	382	601	512	675	587	315	763	629	736	657	630	316	486	458	604	566	546	271	639	511	496	560
Aug. 1----	587	727	567	338	601	658	591	605	680	607	587	558	469	207	298	441	381	671	479	651	722	709	707	652	692	327	305	313	511	677	732	272	573	187	590	628
Aug. 2----	561	683	460	213	554	603	603	376	702	683	511	514	487	669	669	381	540	387	508	381	735	586	661	653	576	599	251	265	491	424	729	504	590	471	---	633
Aug. 3----	516	732	525	474	652	699	593	279	706	487	606	674	477	551	503	296	644	539	272	643	698	345	---	631	587	528	230	192	514	292	557	643	664	533	639	357
Aug. 4----	497	757	603	549	661	665	500	232	359	---	478	649	544	619	305	490	647	692	404	602	683	491	782	653	635	411	174	179	613	390	306	623	615	656	691	302
Aug. 5----	667	719	483	578	661	702	629	595	710	664	607	678	519	608	671	349	650	682	576	661	749	627	578	650	636	557	178	263	631	355	331	625	527	522	692	322
Average------	543	725	551	469	643	687	586	370	657	615	552	643	475	501	504	419	560	607	499	545	731	575	677	651	633	468	307	316	561	481	528	462	606	486	622	450

Note.--Langley is the unit used to denote one gram calorie per square centimeter.
Values in parentheses are interpolated.

TOTAL OZONE DATA

The total amount of ozone is expressed in 10^{-3} cm. at STP. These data are provisional values applicable to local noon, and are obtained from measurements with a Dobson ozone spectrophotometer using the sun or zenith sky as a light source (see explanation below).

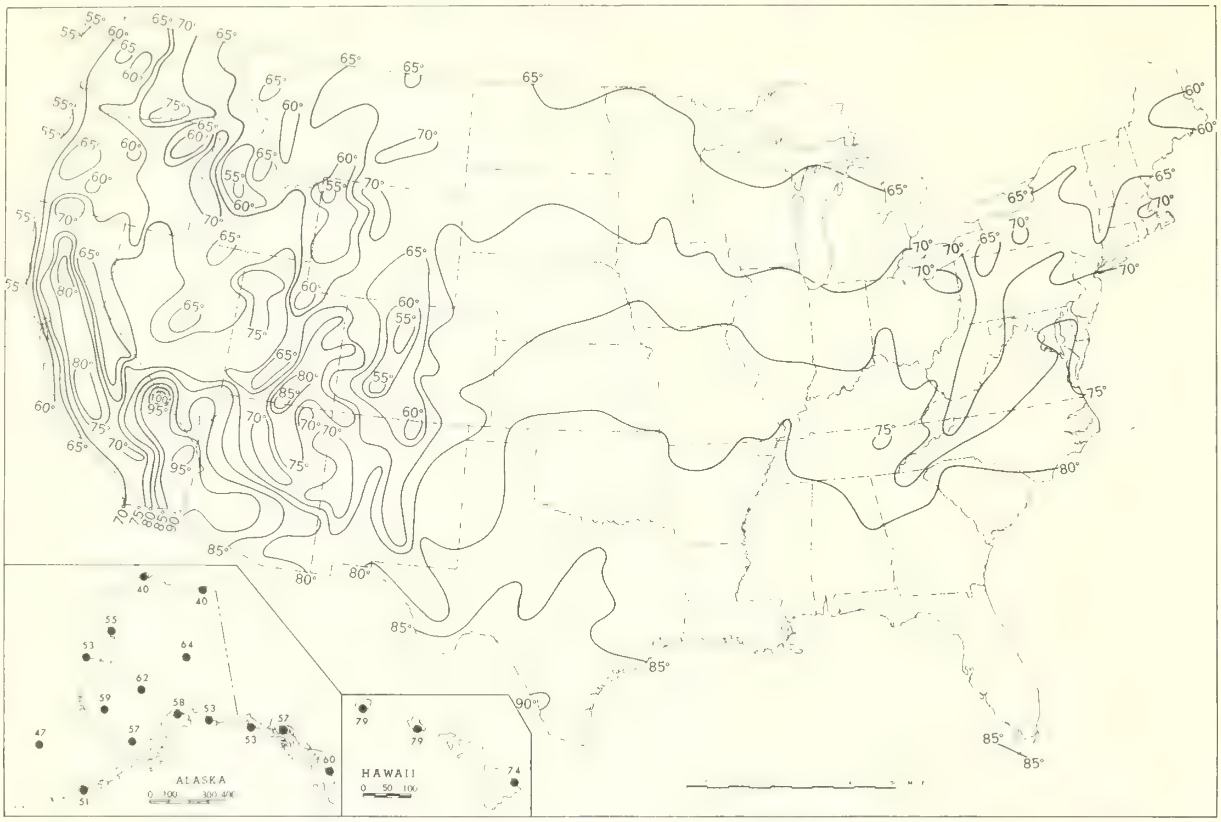
JULY 1962

Station	Day of month																														
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31
Bismarck, N. Dak.	---	297	288	314	314	290	---	311	293	307	312	296	310	---	---	321	326	310	310	326	315	325	302	298	310	300	314	317	301	301	302
Caribou, Maine	371	389	373	---	---	---	---	323	293	---	---	324	---	---	---	338	325	---	361	342	---	341	---	---	---	---	368	343	310	---	---
Green Bay, Wis.	---	---	280	298	276	273	255	268	268	266	274	284	300	295	302	---	287	295	278	317	326	306	313	305	331	333	288	---	284	279	279
Hallett, Antarctica	---	---	---	---	---	---	---	---	---	---	---	---	---	---	‡226	---	---	‡212	---	---	---	---	---	---	---	---	---	---	---	---	---
Mauna Loa, Hawaii	---	284	279	285	279	289	277	277	---	294	292	285	281	282	281	286	283	---	278	271	265	271	273	269	267	272	269	271	274	275	277
Midland, Texas	---	---	---	---	---	---	---	---	---	317	319	327	325	348	328	310	*307	305	304	304	---	---	304	302	301	301	305	313	---	304	324
Nashville, Tenn.	305	309	305	299	*311	320	---	---	295	305	---	290	308	311	---	---	---	---	---	---	---	---	---	---	---	306	312	---	319	---	297
Sterling, Va.	*328	325	---	---	313	308	†304	---	318	317	313	322	*350	---	---	---	---	*335	345	312	---	---	340	†340	---	317	353	---	---	*314	300

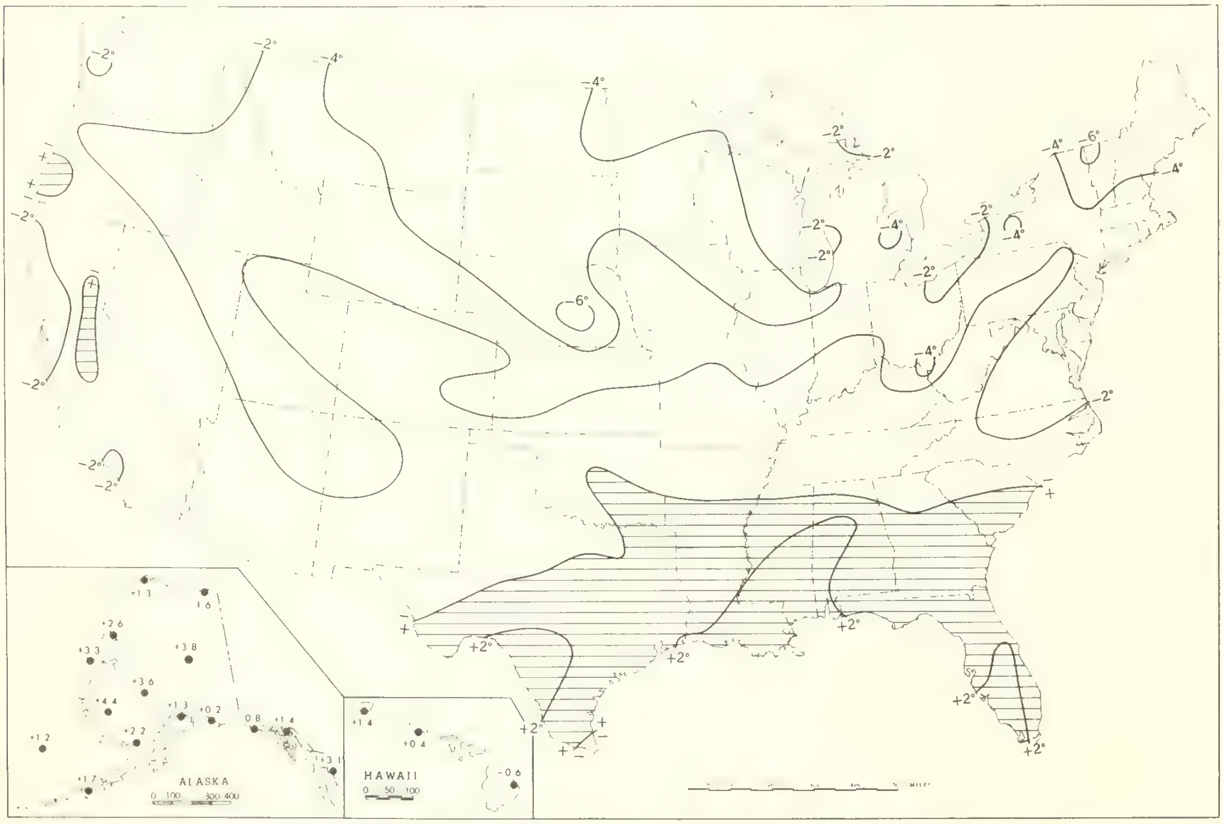
The spectrophotometer measures the total amount of ozone in the atmosphere, i.e., the amount contained in a vertical column of air extending from the ground to the top of the atmosphere in the vicinity of the station. The amount of ozone in this column is expressed in terms of thickness of a layer it would occupy at standard temperature and pressure.

The standard method of measurement is that on direct sun using A(3055Å and 3254Å) and D(3176Å and 3398Å) wavelength pairs. Observations made on the clear zenith sky are slightly less accurate, and are marked with a dagger (†). Observations made on zenith cloud are least reliable, and are marked with an asterisk (*). A detailed description of the spectrophotometer and observational procedures may be found in the "Observers' Handbook For the Ozone Spectrophotometer", *Annals of the International Geophysical Year*, Volume V, Pergaman Press, 1957.

Chart I. A. Average Temperature (°F.) at Surface, July 1962.



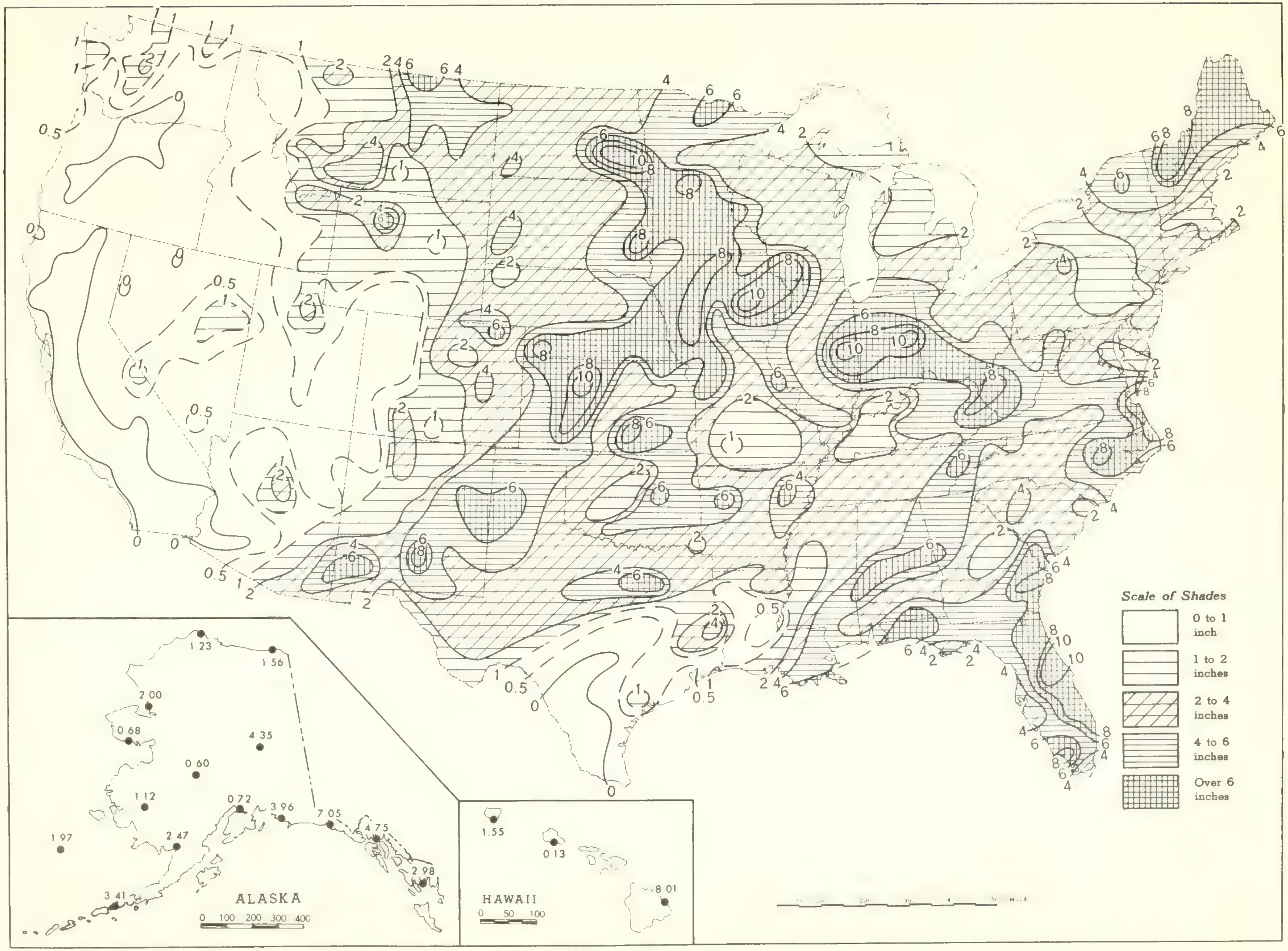
B. Departure of Average Temperature from Normal (°F.), July 1962.



A. Based on reports from over 870 Weather Bureau and cooperative stations. The monthly average is half the sum of the monthly average maximum and monthly average minimum, which are the average of the daily maxima and daily minima, respectively.

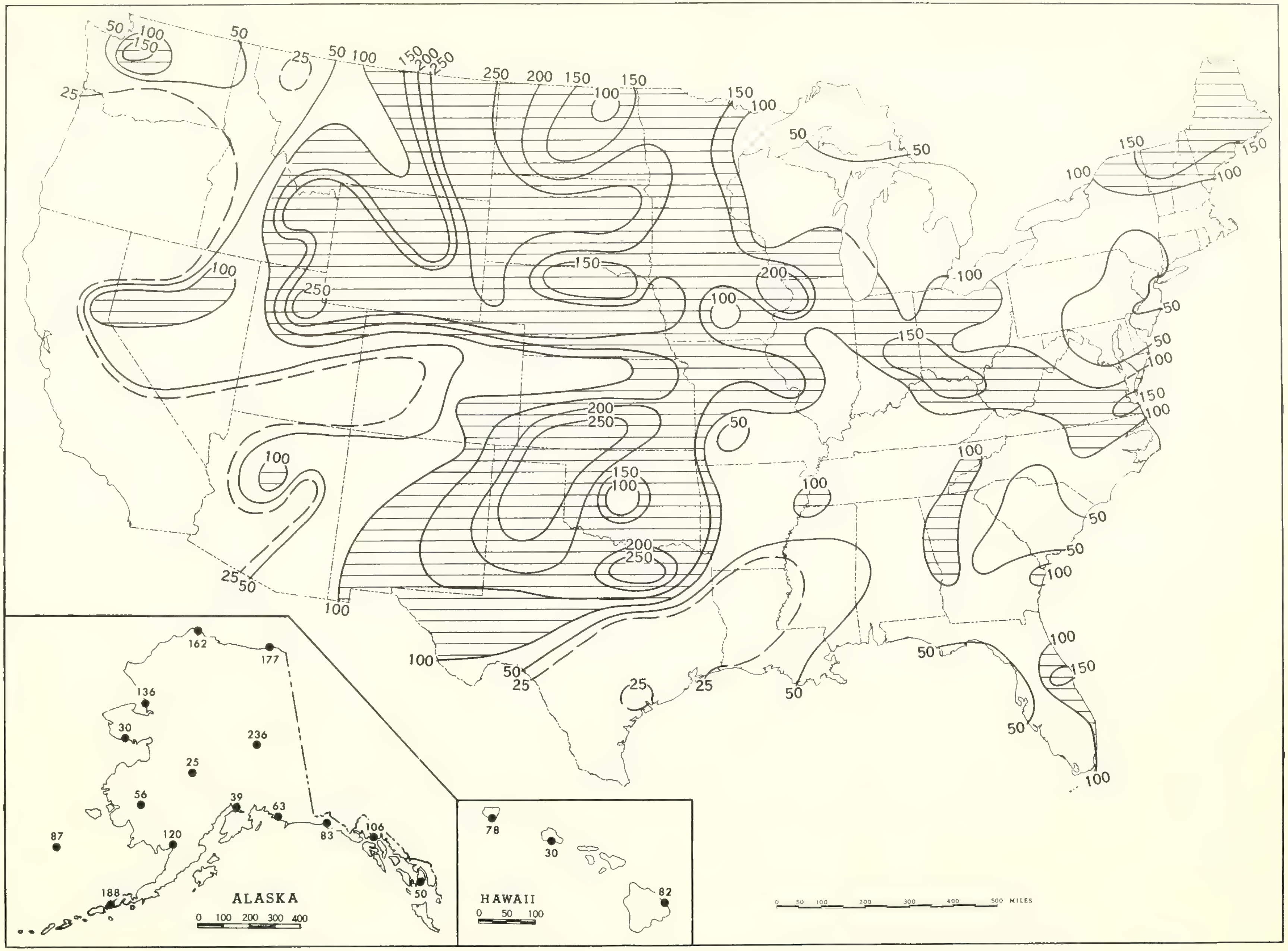
B. Departures from normal are based on the 30-yr. normals (1931-60) for first-order Weather Bureau stations.

Chart II. Total Precipitation (Inches), July 1962.



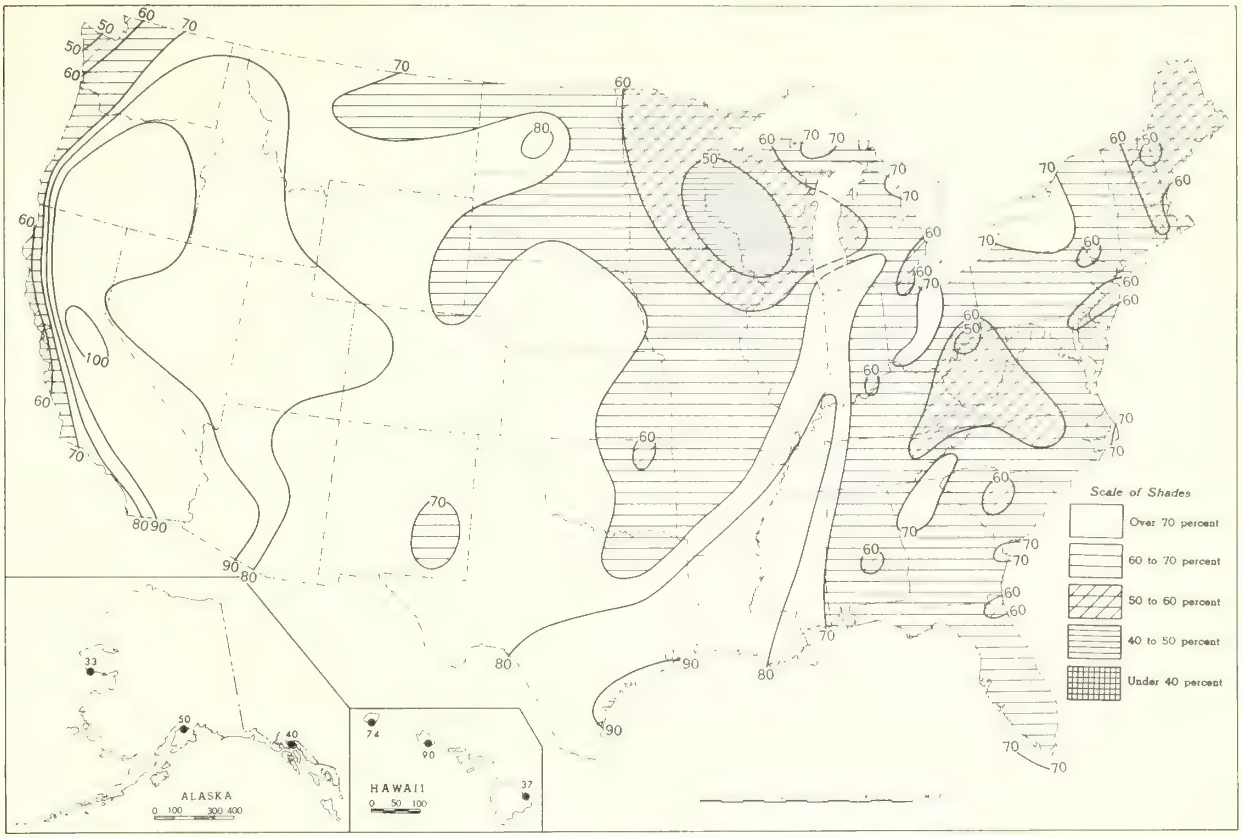
Based on daily precipitation records at about 870 Weather Bureau and cooperative stations.

Chart III. Percentage of Normal Precipitation, July 1962.

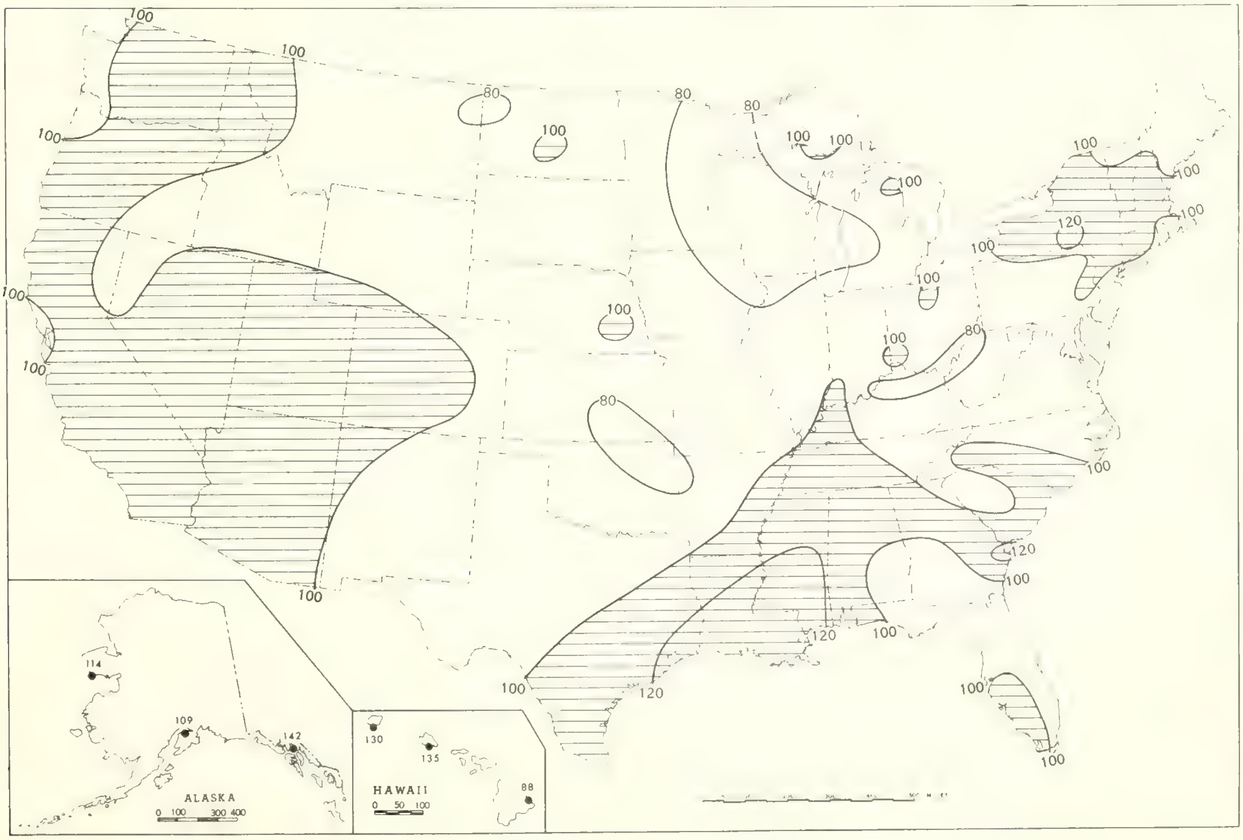


Normal monthly precipitation amounts are computed from 30-yr. normals (1931-60) for first-order Weather Bureau stations.

Chart VI. A. Percentage of Possible Sunshine, July 1962.

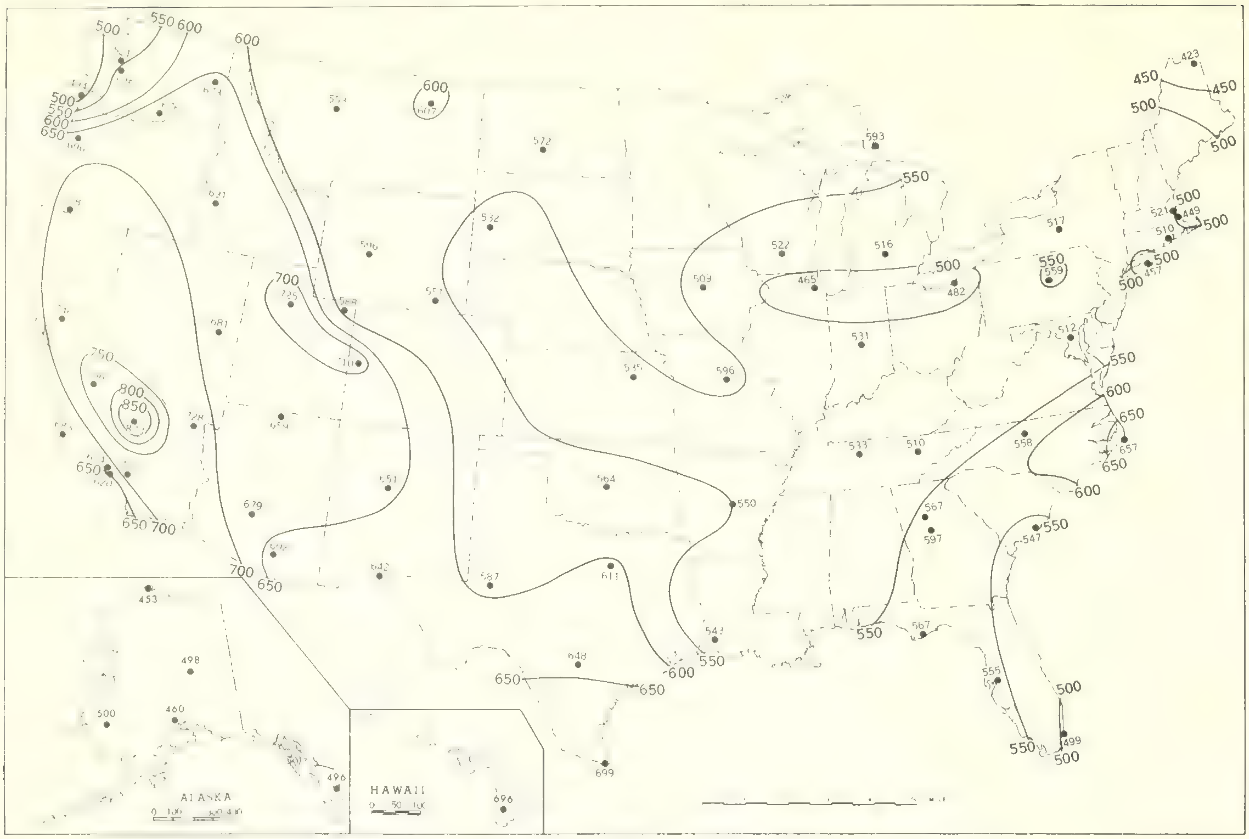


B. Percentage of Mean Monthly Sunshine, July 1962.

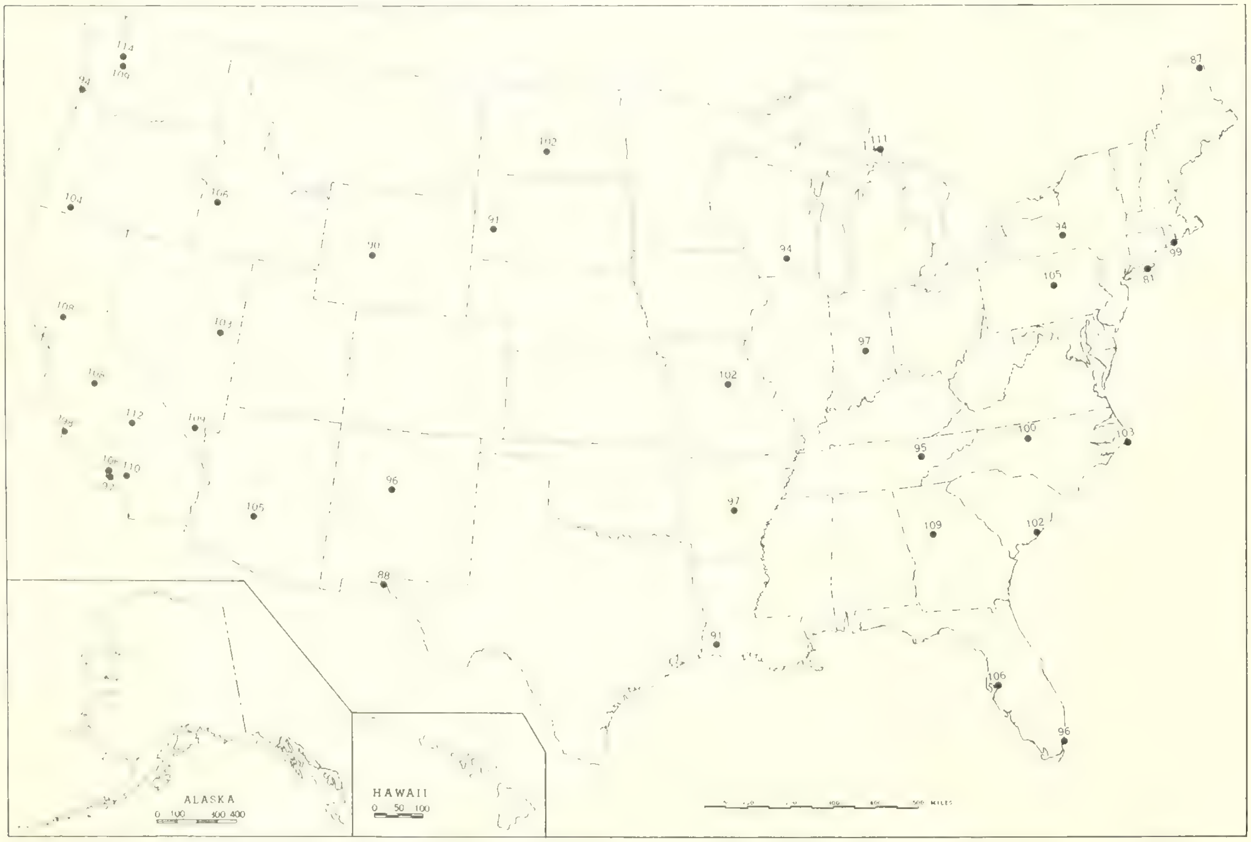


A. Computed from total number of hours of observed sunshine in relation to total number of possible hours of sunshine during month. B. Means are computed for stations having at least 10 years of record.

Chart VII. A. Average Daily Values of Solar Radiation, Langleys, July 1962.



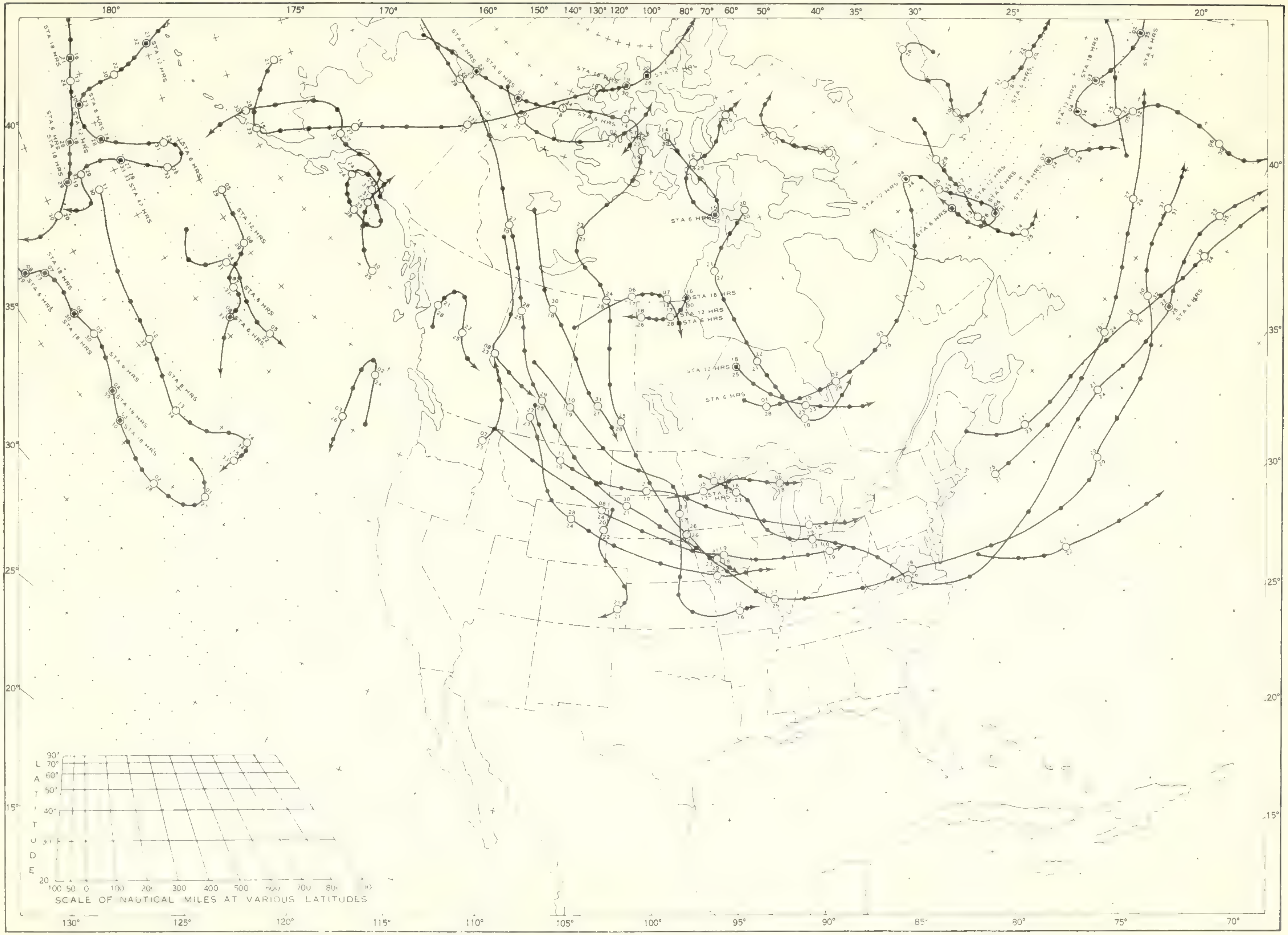
B. Percentage of Mean Daily Solar Radiation, July 1962.



A. Mean daily solar radiation, direct + diffuse, received on a horizontal surface in langleys (1 langley = 1 gm. cal. cm. $^{-2}$) and recorded in International Pyrheliometer Scale of 1956.

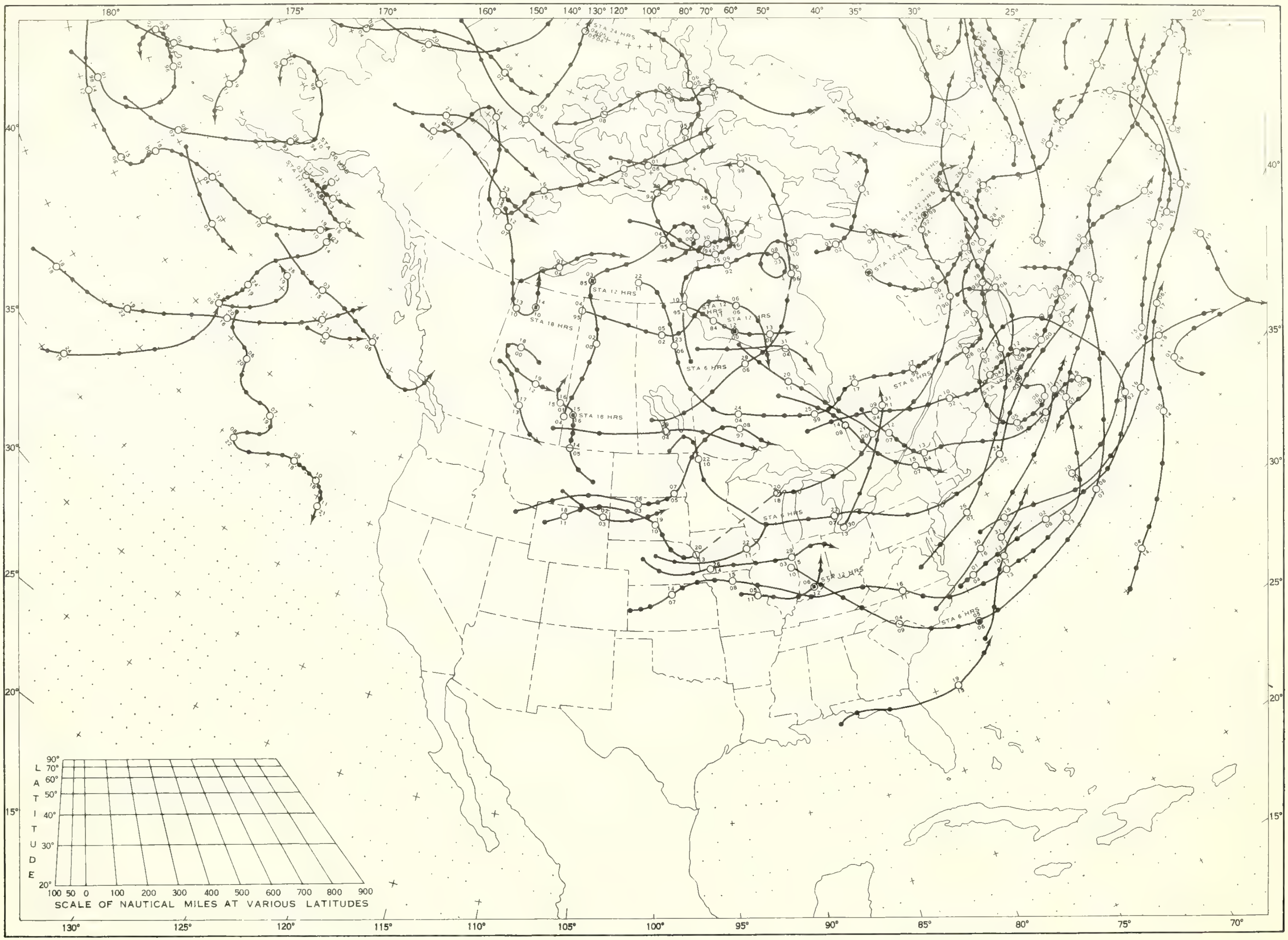
B. Percentage of the mean based on the period 1953-57, and corrected to the International Pyrheliometer Scale of 1956.

Chart VIII. Tracks of Centers of Anticyclones at Sea Level, July 1962.



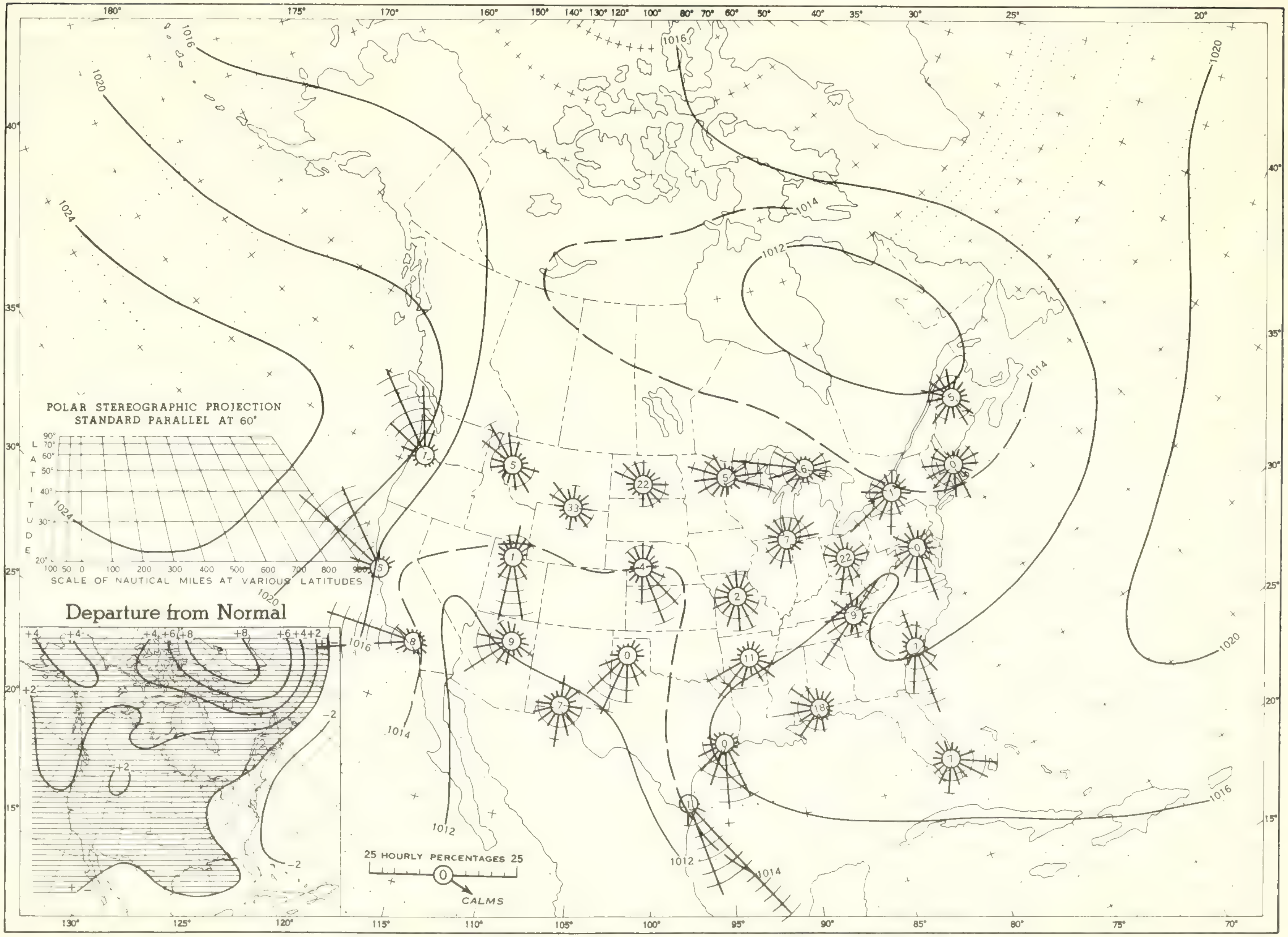
Circle indicates position of center at 7:00 a. m. E. S. T. Figure above circle indicates date, figure below, pressure to nearest millibar. Dots indicate intervening 6-hourly positions. Squares indicate position of stationary center for period shown. Dashed line in track indicates reformation at new position. Only those centers which could be identified for 24 hours or more are included.

Chart IX. Tracks of Centers of Cyclones at Sea Level, July 1962.



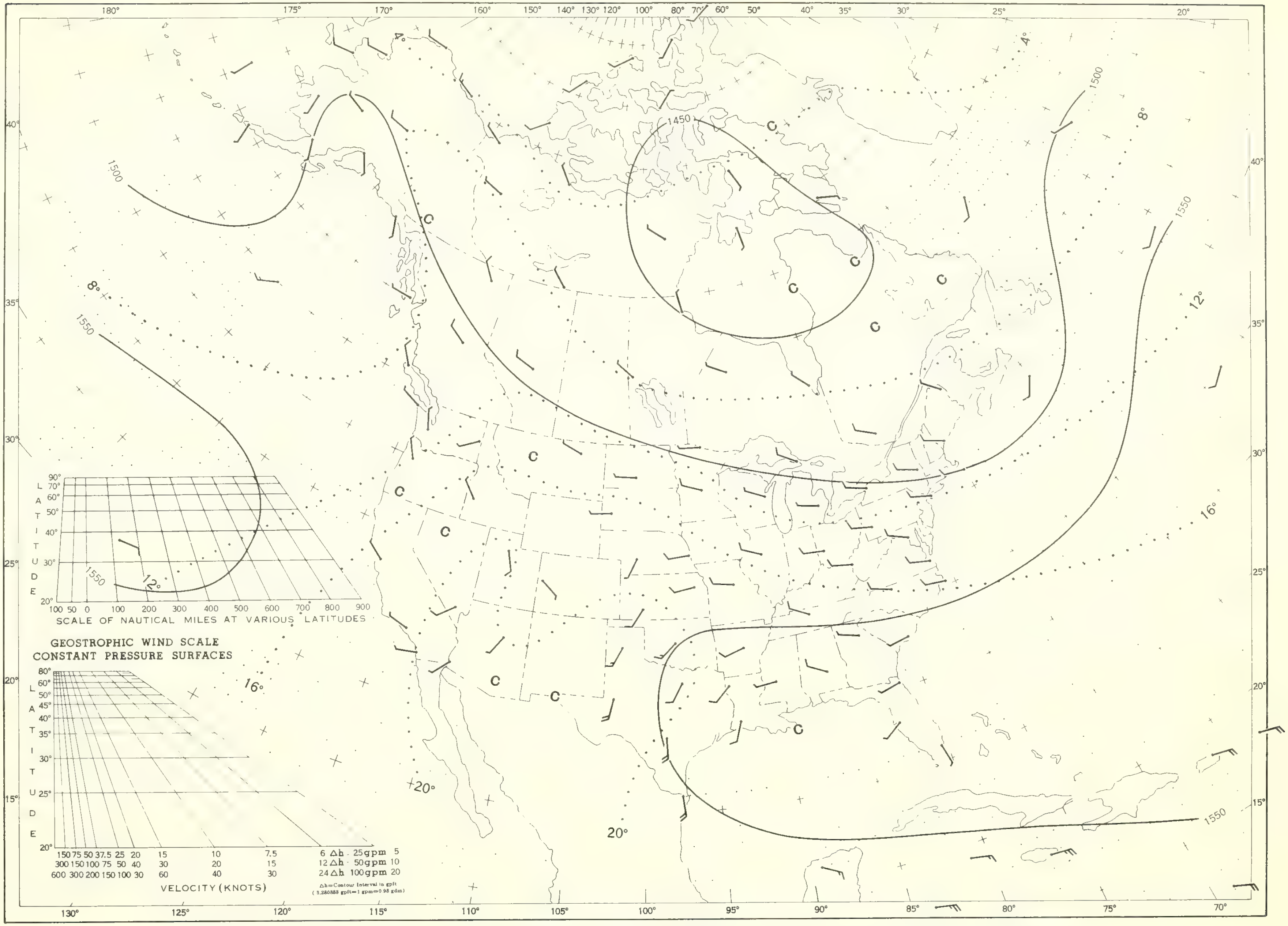
Circle indicates position of center at 7:00 a. m. E. S. T. See Chart VIII for explanation of symbols.

Chart X. Average Sea Level Pressure (mb.) and Surface Windroses, July 1962. Inset: Departure of Average Pressure (mb.) from Normal, July 1962.



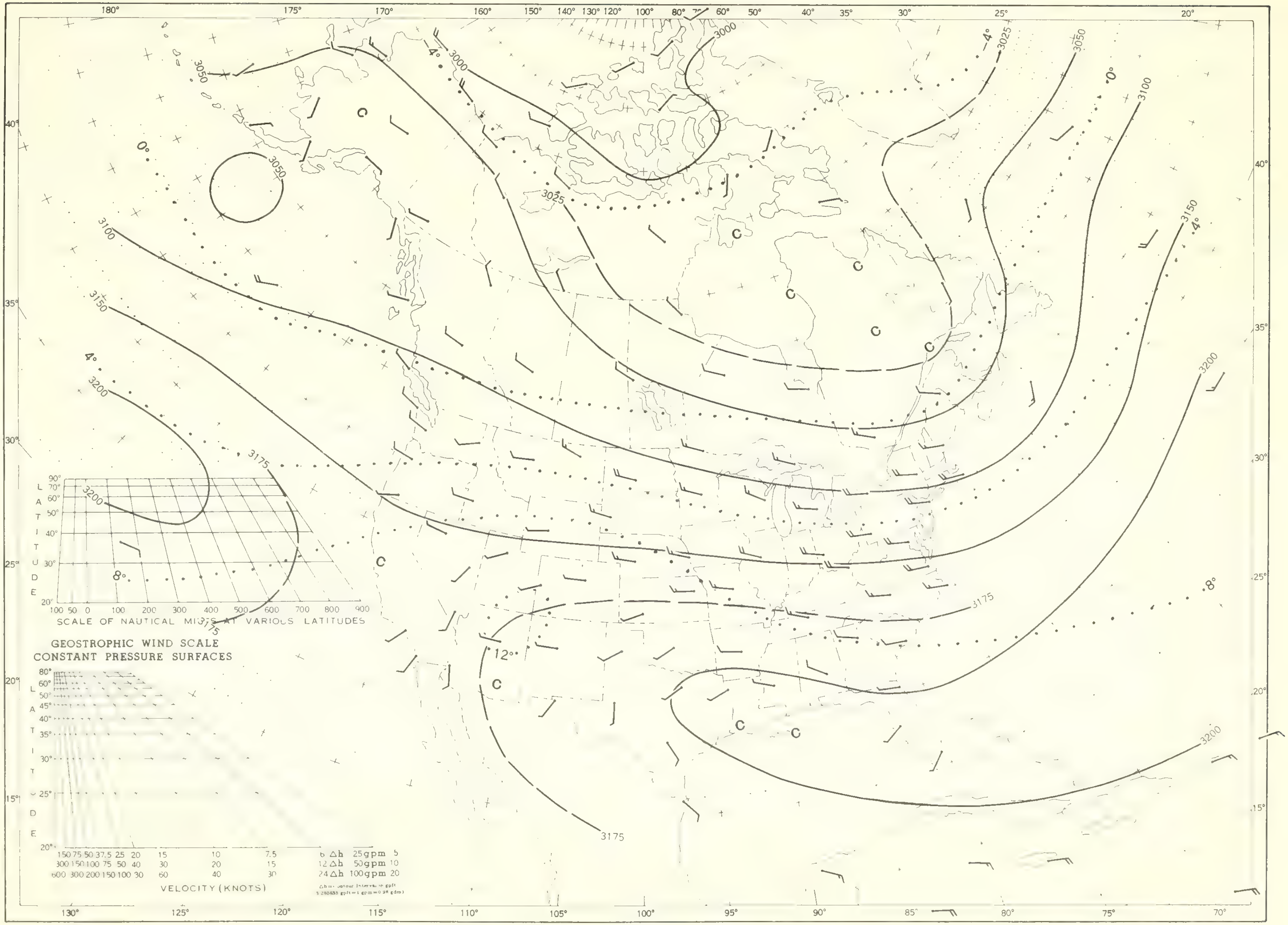
Average sea level pressures are obtained from the averages of the 7:00 a. m. and 7:00 p. m. E. S. T. readings. Windroses show percentage of time wind blew from 16 compass points or was calm during the month. Pressure normals are computed for stations having at least 10 years of record and for 10° intersections in a diamond grid based on readings from the Historical Weather Maps (1899-1939) for the 20 years of most complete data coverage prior to 1940.

Chart XI. 850-mb. Surface, 1200 GMT, July 1962. Average Height and Temperature, and Resultant Winds.



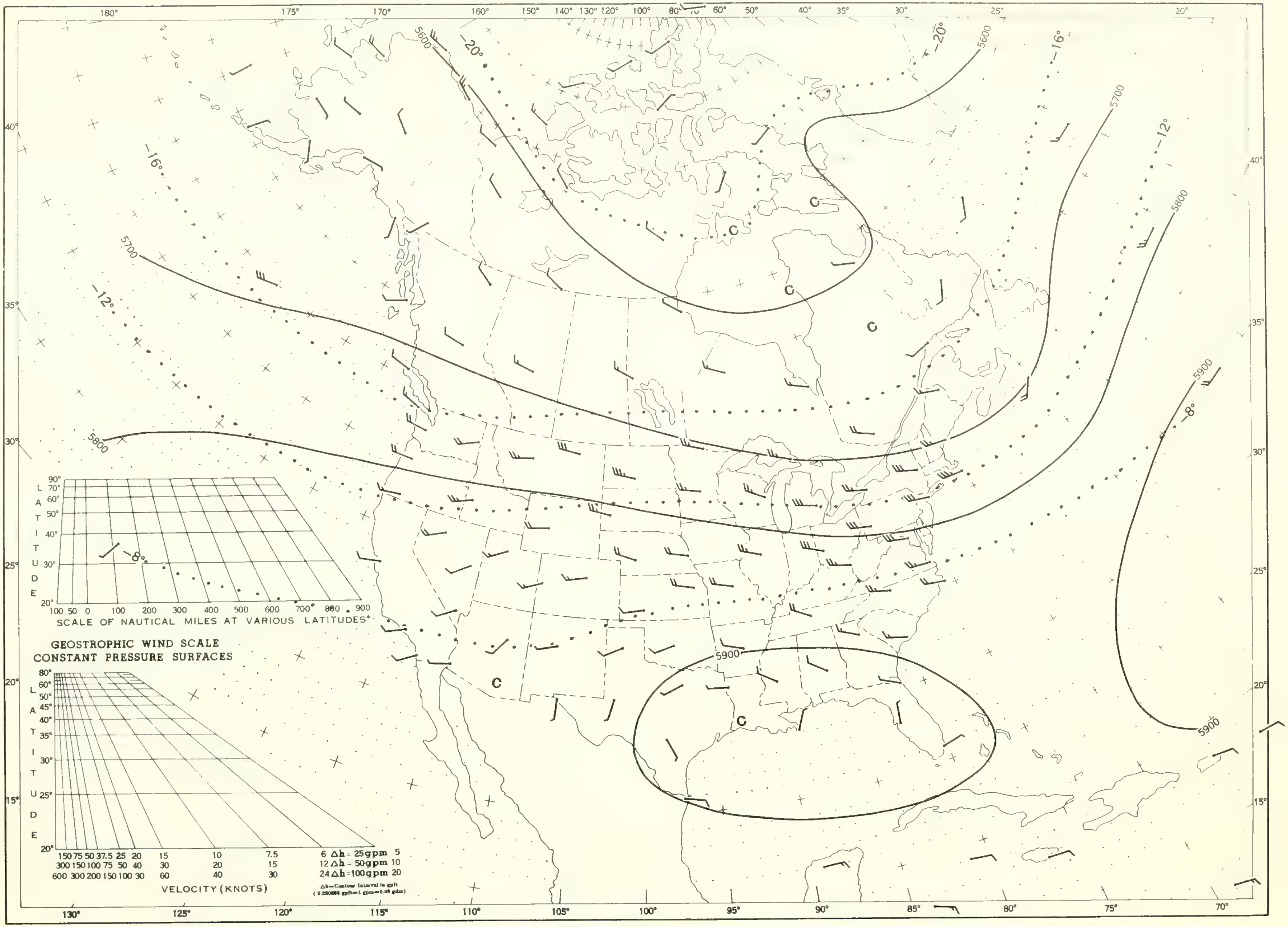
Height in geopotential meters (1 g.p.m. = 0.98 dynamic meters). Temperature in °C. Wind speed in knots; flag represents 50 knots, full feather 10 knots, and half feather 5 knots. All wind data are based on rawin observations.

Chart XII. 700-mb. Surface, 1200 GMT, July 1962. Average Height and Temperature, and Resultant Winds.



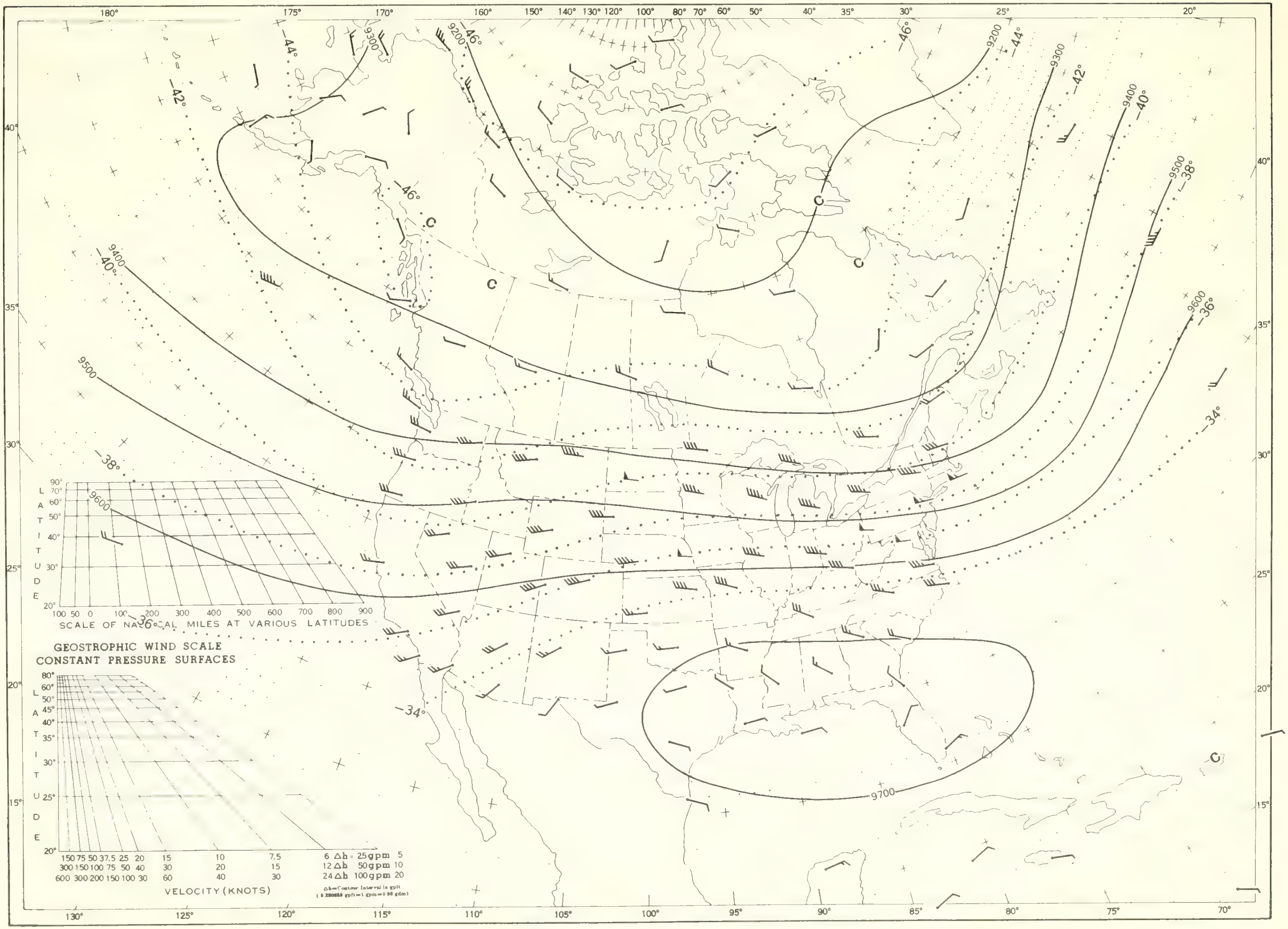
See Chart XI for explanation of map.

Chart XIII. 500-mb. Surface, 1200 GMT, July 1962. Average Height and Temperature, and Resultant Winds.



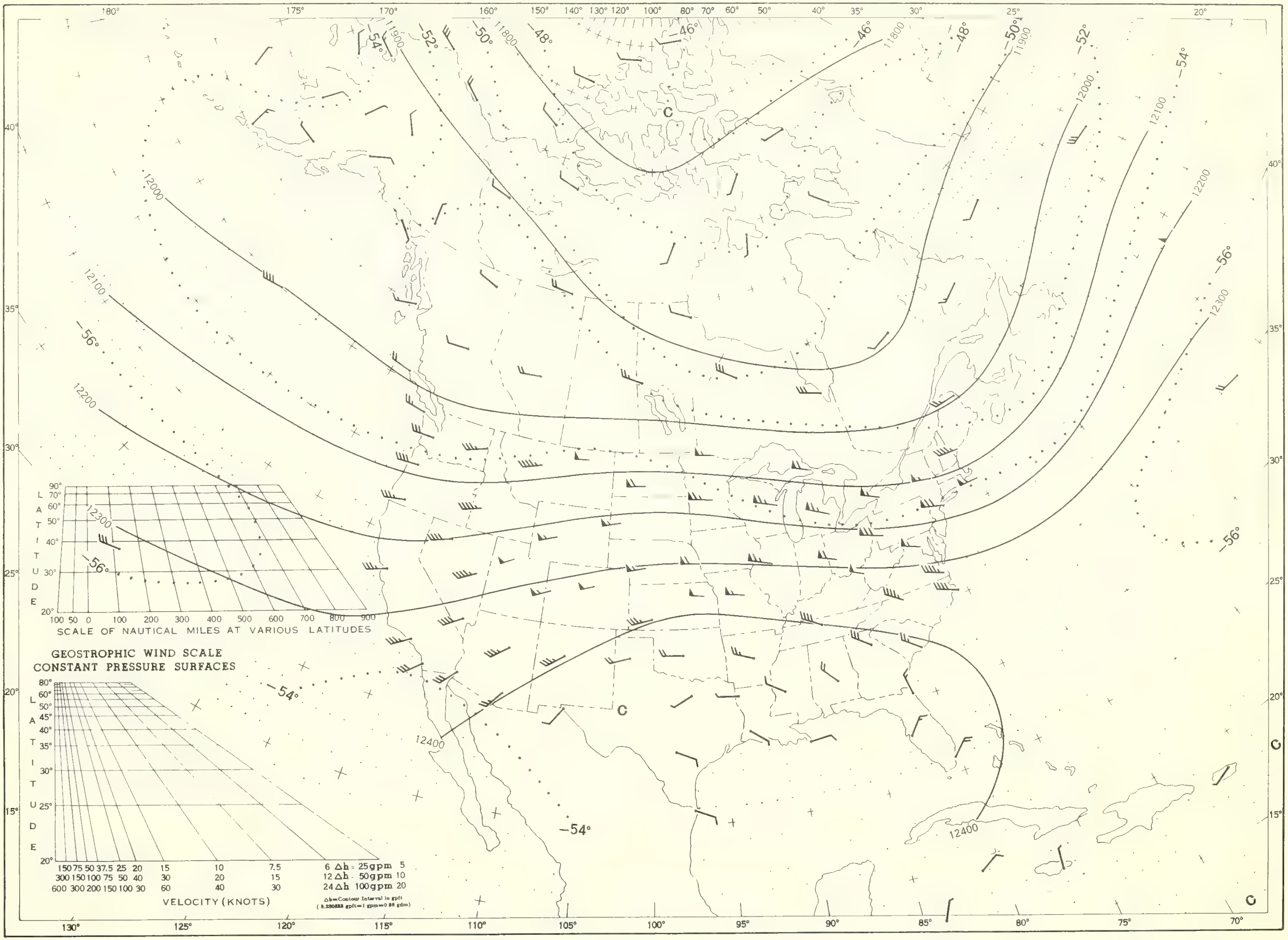
See Chart XI for explanation of map.

Chart XIV. 300-mb. Surface, 1200 GMT, July 1962. Average Height and Temperature, and Resultant Winds.



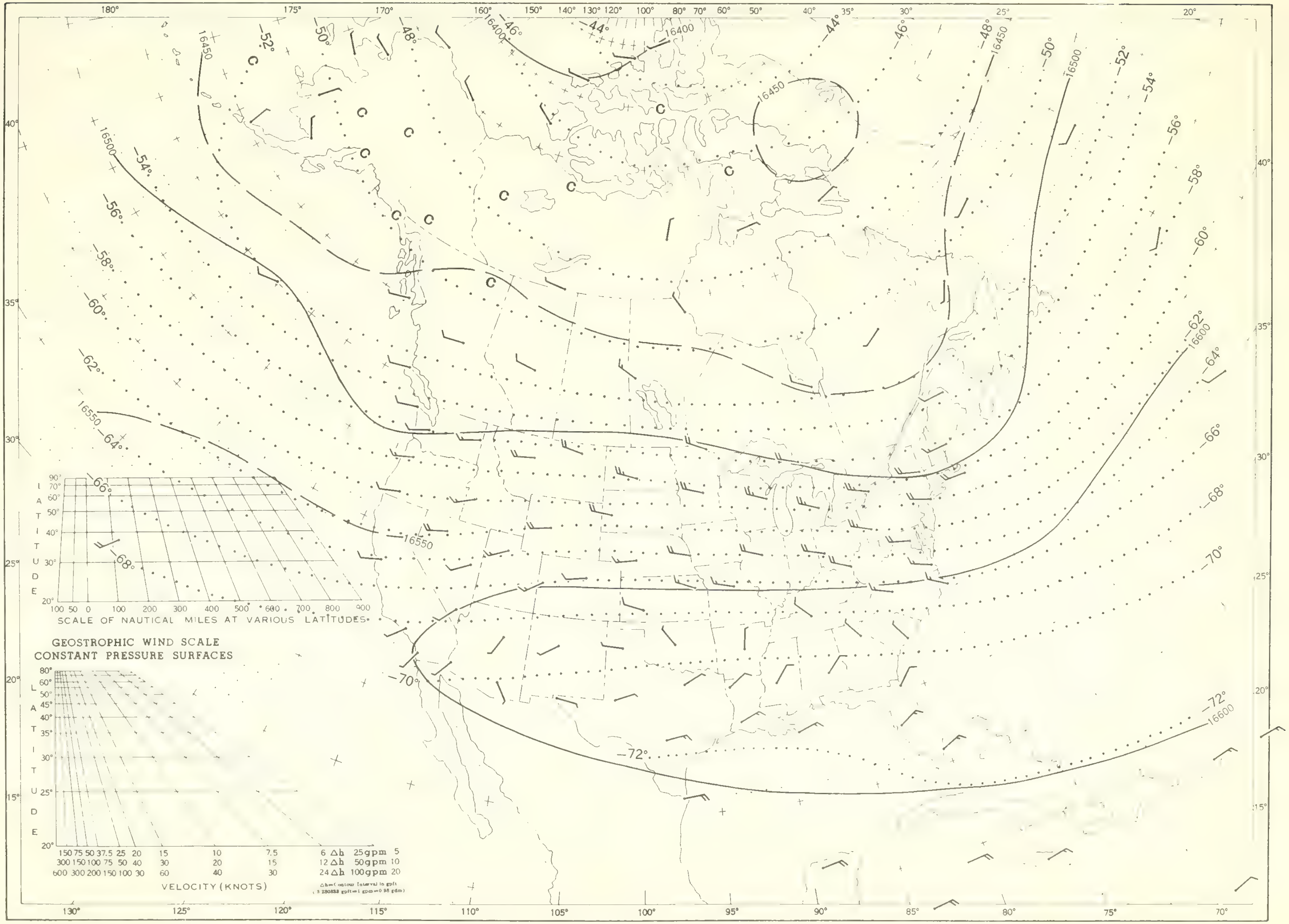
See Chart XI for explanation of map.

Chart XV. 200-mb. Surface, 1200 GMT, July 1962. Average Height and Temperature, and Resultant Winds.



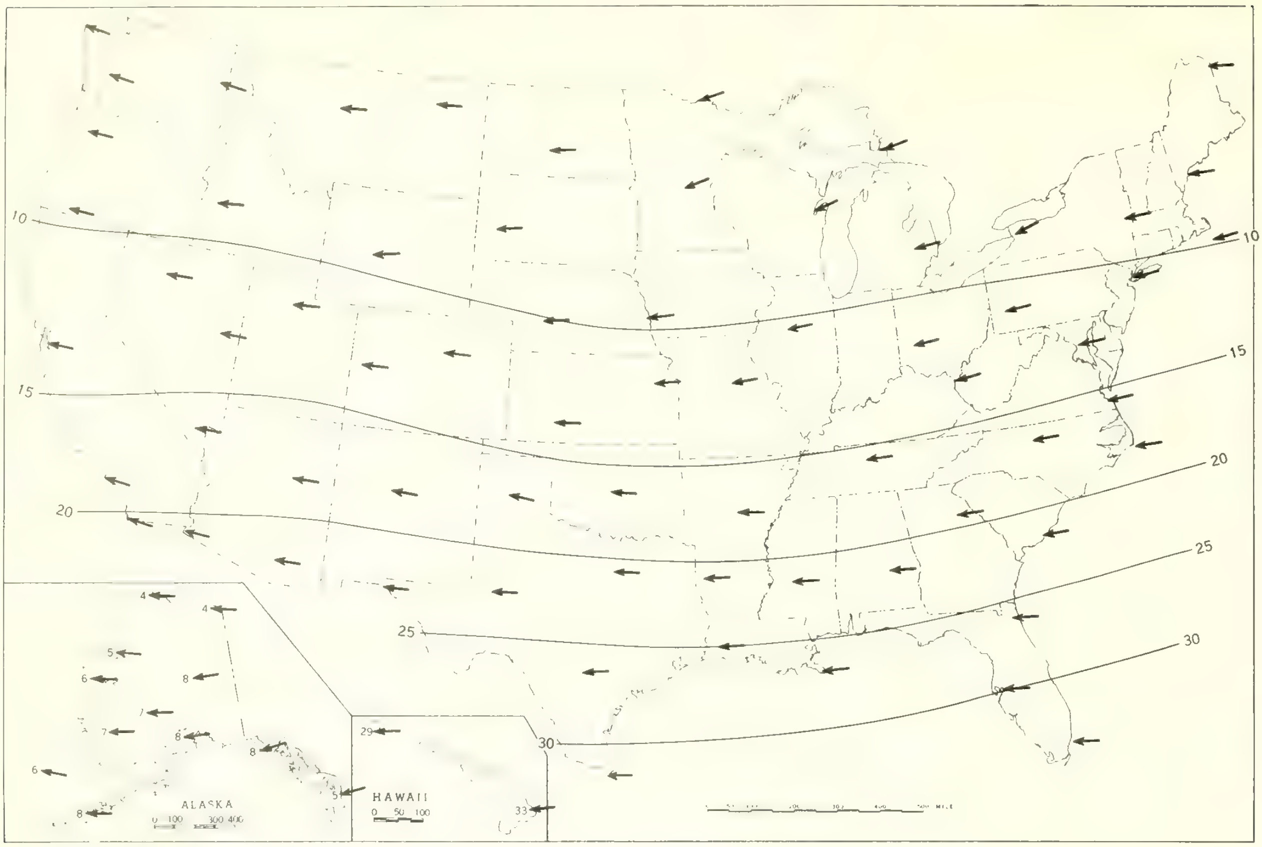
See Chart XI for explanation of map.

Chart XVI. 100-mb. Surface, 1200 GMT, July 1962. Average Height and Temperature, and Resultant Winds.

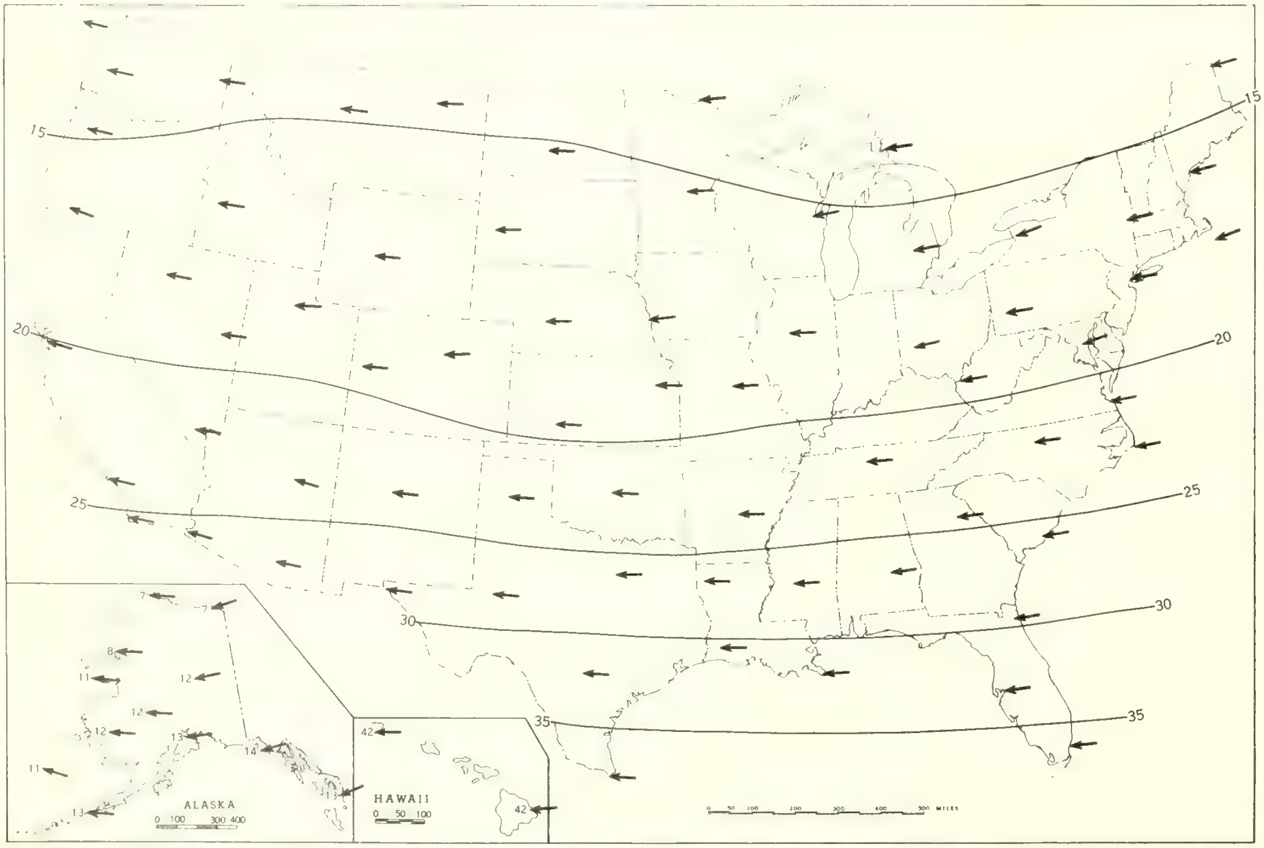


See Chart XI for explanation of map.

Chart XVII. A. 50-mb. Surface, 1200 GMT, July 1962. Resultant Winds.



B. 30-mb. Surface, 1200 GMT, July 1962. Resultant Winds.



Wind speed (isotachs) in knots. Arrows show resultant wind direction. All wind data are based on rawin observations.

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CLIMATOLOGICAL DATA

NATIONAL SUMMARY

AUGUST 1962
Volume 13 No. 8

ASHEVILLE: 1962

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NOTE: Delayed data and corrections will be carried in the June and December issues of this publication.

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CLIMATOLOGICAL DATA

NATIONAL SUMMARY

Volume 13 No. 8 AUGUST 1962

GENERAL SUMMARY OF WEATHER CONDITIONS

The pattern of cool weather across the northern portion of the country and above-normal warmth in southern sections that had prevailed during July generally continued through August. Rains brought considerable relief to the three major drought areas - - the Northeast, southern Texas and Louisiana, and Alabama. However, in spite of heavy rains in most of the northern and eastern two-thirds of the country, many scattered localities were still suffering from deficient soil moisture. There was no major flooding in the rivers nor damage from hurricanes.

TEMPERATURE.--The month averaged 2° to more than 4° cooler than usual over nearly all of the northern and northeastern portions of the country and about 2° to 4° above normal in an area from extreme southeastern California to Alabama.

Many stations in the northern interior reported the coolest August and coolest July-August period in 11 years. Individual daily lows of long standing were broken on several days in the northern interior and Northeast. Some frost was reported in a few extreme northern sections. The temperature dropped to 31° at Kalispell, Mont., on the 23d, only 50 days since the last freeze in spring, which made the freeze-free period 30 days shorter than for any season on record there. A low of 45° on the 18th at Pittsburgh, Pa., tied the alltime August low set there in 1890. This was the first summer in 58 years that the maximum temperature at Boston, Mass., failed to reach 90°.

A few days were quite warm, however, in northern and middle sections, particularly from about the 19th to the 24th. Temperatures that were in the upper 30's and the 40's in Minnesota, Wisconsin, and Michigan the morning of the 18th, rose to the 80's and 90's by the afternoon of the 19th. Maximum temperatures had risen to 100° or more as far north as Nebraska on the 18th and 19th and extreme southern Michigan on the 20th. Several stations in northeastern Kansas had their first 100° readings since 1957. Afternoon temperatures reached 105° at St. Louis, Mo., on the 19th, 101° at Ft. Wayne, Ind., and 100° at Harrisburg, Pa., on the 20th. Maxima of 102° on the 19th at Topeka, Kans., and 101° on the 20th at Louisville, Ky., were the highest in 8 years.

An unusually strong cold front caused a sharp temperature drop in northern and middle sections of the Far West near the end of the month. For instance, at Rapid City, S. Dak., the temperature on the 27th dropped from 95° at 1 p.m., to 55° at 6 p.m., and 44° by midnight. This sharp change to colder weather was accompanied by snow in the Rockies southward into Colorado. New August lows were set at Casper, Wyo., with 36° on the 28th and at Reno, Nev., with 24° on the 29th.

Hot weather was quite persistent in the more southern areas. It was the warmest August (95.9°) of record at Yuma, Ariz., where the maximum temperature was 103° and higher on all days of the month. In Texas, San Antonio reported the warmest month (87.5°) of record; Brownsville, the hottest August (85.8°) in 42 years; and El Paso, (84.0°), the second warmest August of record. Temperatures were generally above normal over that State on 25 of the 31 days in the month, with new daily high records set on 5 days at many stations. Laredo reported a string of 43 consecutive days of 100° and higher that was broken on the 20th. Houston set a new record with 100° and higher on 9 consecutive days (6th-14th). All but 3 days of the month were warmer than usual at Birmingham and Montgomery, Ala.

It was quite warm during the first part of the month in northern Alaska. For instance, at Barrow, along the Arctic Sea, the daily high and low temperatures on the 2d were 62° and 47° and on the 14th, 64° and 42°, making those 2 days 15° and 14° warmer than usual.

PRECIPITATION.--More than 2 inches of rain fell along the north Pacific coast and over most of the area from the Great Plains to the Atlantic and Gulf coasts. Amounts exceeded 4 inches in a narrow strip from eastern Kansas to Upper Michigan, in Louisiana, extreme eastern Texas, extreme eastern Arkansas and immediate adjacent areas, Florida, and along the Atlantic coast. The totals were above normal from the middle and north Pacific coast eastward over the northern Rockies to extreme northern North Dakota, in the Wisconsin-Upper Michigan area, the Northeast, eastern Kansas, extreme eastern Nebraska, northern and eastern Texas, Louisiana, the extreme eastern Arkansas area, and from southern South Carolina southward over eastern Georgia and the Florida Peninsula. Many scattered localities between these heavy rain areas, particularly in middle and southern sections, received less than one-half the normal amount. Nearly all stations in central and southern California, southern Nevada, and extreme western Arizona received no measurable rainfall, some for as long as 2 to 5 months.

Drought conditions in eastern Pennsylvania, New York, New England, and New Jersey were generally relieved by rains about the 6th to the 11th. The drought that had persisted in the southern Texas-Louisiana area since July was broken, also, in most sections by heavy rains about the third and fourth weeks. Lake Charles, La., received 14.10 inches of rain on the 28th and 29th for the greatest in 24 hours during any August and a monthly total of 17.36 inches for the greatest amount of record for August. In Texas rainless periods of 55 days were ended at Austin by 4.54 inches of rain on the 24th and 25th; of 54 days at San Antonio by 1.57 inches on the 25th; 53 days at Waco by 0.69 inch on the 24th; and 53 days at Corpus Christi by only 0.17 inch on the 20th.

Although rain was heavy in most sections of the country from the Great Plains to the Atlantic and Gulf coasts, many middle and southern areas received only token amounts and continued to suffer from soil moisture deficiency. Among these are the extreme southern sections of Texas, southern Mississippi, sections of Alabama, northern Georgia, the middle and western portions of North Carolina, Virginia, and Maryland, and many areas from southern Missouri to west-central Lower Michigan. Washington, D. C., reported the driest August (0.55 inch) and driest summer (4. 62 inches) since records began in 1871. It was the driest August of record, also, at Baltimore (city - 0.30 inch) and Frederick (0. 23 inch) of record. Unusually hot weather had accentuated the droughty situation in the more southern sections of the country. Droughty conditions still persist in the northern section of of the island of Hawaii.

A snowstorm on the 28th and 29th resulted in quite heavy snow for so early in the season in the northern Rockies, including the Big Horns. In Wyoming, 6 inches of snow was on the ground at Black Mountain and 8 inches at Granite Pass on the 29th.

DESTRUCTIVE STORMS AND OTHER UNUSUAL WEATHER PHENOMENA. -- Thunderstorms were unusually frequent in the Southeast, particularly in Florida where the number of days with thunderstorms and distant lightning ranged from about 18 days in the northern portion to 28 in the central and 29 to 30 out of the 31 days of the month in the southern part. Most stations in northern and middle interior portions of the country reported thunder or distant lightning on about 12 to 20 days. Hail, accompanying a severe thunderstorm, caused considerable crop damage in Missouri River bottoms east of Sergeant Bluff and Salix, Iowa, on the 9th. A severe thunder-, hail-, and windstorm on the 8th caused several million dollars damage in southeastern Michigan and northwestern Ohio to trees, telephone- and powerlines, roofs, windows, crops, etc.

A tornado in connection with a line of thunderstorms struck the west portion of Cleveland on the evening of the 20th, resulting in 4 deaths, several injuries, and over $1 million property damage. Another tornado at Cameron, La., on the 28th caused 6 deaths and several injuries.

Flash local flooding at Velva, N. Dak., on the 10th swept cars off highways, and 3 persons drowned. An 11-inch rain on the 1st in the vicinity of Max, Nebr., flooded creeks, causing considerable loss of cattle.

Hurricane Alma produced moderate to heavy beneficial rains along the Atlantic coast, as she moved northward off the coast from the 28th to the 30th. Only gales were recorded on land, with little or no damage from winds or tides. She dumped 8.11 inches of rain on Hatteras, N. C.

CONDENSED CLIMATOLOGICAL SUMMARY

AUGUST 1962

Section	Temperature						Precipitation			
	Monthly extremes						Monthly extremes			
	Station	Highest	Date	Station	Lowest	Date	Station	Greatest	Station	Least
		°F			°F			In.		In.
Alabama	5 Stations	102	29+	Valley Head	50	29	Greenville	8.36	Fayette	0.05
Arizona	Inner Canyon	119	12	Fort Valley	27	31	Nogales 2N	4.90	10 Stations	.00
Arkansas	Mount Ida	110	7	Gravette	46	26	Bald Knob	8.61	Greenwood	.60
California	Death Valley	123	15	2 Stations	24	29	Crescent City 1N	3.97	323 Stations	.00
Colorado	Holly	109	11	Fraser	17	25	Spicer	3.20	Collbran	T
Connecticut	3 Stations	90	9+	Coventry	38	25+	Norwich Pub. Util.	6.91	Rocky River Dam	2.07
Delaware	4 Stations	96	21+	2 Stations	50	26+	Wilmington Porter Res	4.04	Milford 3WNW	.99
Florida	De Funiak Springs	101	7	Jasper 3SE	60	13	Sarasota	15.92	Caryville	1.30
Georgia	2 Stations	101	7	Blairsville Exp Sta	46	30	Savannah USDA Plant Gdn	12.00	Alapaha Exp Station	1.07
Idaho	Riggins RS	114	16	Three Creek	21	30	Mullan FAA	1.92	2 Stations	.02
Illinois	Sparta	108	20	4 Stations	44	18+	New Burnside	7.38	Freeport Sewage Plant	.48
Indiana	Henryville St Forest	104	21	Wabash	40	15	Bedford	7.44	Kendallville	1.00
Iowa	Bloomfield	99	23	Delaware 3WSW	41	17	Ida Grove	13.50	Columbus Junction	.88
Kansas	Lakin	111	9	2 Stations	49	27+	Centralia	8.51	Johnson 11ESE	T
Kentucky	2 Stations	103	21+	McKee	46	11	Princeton	5.85	Inez	.17
Louisiana	do	109	13+	2 Stations	57	18+	Hackberry 8SSW	26.47	Hosston	1.42
Maine	4 Stations	88	27+	do	33	23	Bingham Wyman Dam	8.11	Belfast	1.90
Maryland	Hancock Fruit Lab.	102	21	Oakland	38	19+	Frostburg	4.50	Beltsville	.04
Massachusetts	Framingham	91	7	West Cummington	38	23	South Egremont	6.34	Turner Falls	2.30
Michigan	Bay City Sewage Pl	97	24	2 Stations	30	18+	Fayette	6.61	Allegan Sewage Plant	.87
Minnesota	Beardsley	100	27	Wright 4NW	33	17	Lanesboro	9.87	Canby	.40
Mississippi	2 Stations	103	18	2 Stations	54	16+	Yazoo City 5NNE	8.28	Macon 2NE	.25
Missouri	4 Stations	107	20+	Versailles	43	26	Fisk	10.02	2 Stations	.28
Montana	Brandenburg	104	4	5 Stations	23	31+	Phillips	3.85	Shelby AP	.19
Nebraska	Merriman	106	27	Gordon	32	28	Waterloo	6.33	North Platte WBAP	.10
Nevada	Sunrise Manor LASVG	117	14	Charleston	15	31	Sheldon	.73	26 Stations	.00
New Hampshire	Berlin	91	27	Fabyan	33	23	Bethlehem	8.66	Center Harbor	1.70
New Jersey	Shiloh	97	20	Newton	40	19	Audubon	13.52	Shiloh	.74
New Mexico	Lordsburg	108	15	3 Stations	27	31+	Pearl	3.15	8 Stations	.00
New York	Poughkeepsie	99	8	Indianlake 2SW	32	2	Wanakena Ranger St	8.00	Shokan-Brown Sta	.65
North Carolina	Mount Gilead 4W	100	21	2 Stations	42	11	Cape Hatteras WB	11.68	Wadesboro	.61
North Dakota	Watford City 14S	102	21	Medora 3NNE	31	30	Max	5.26	Bowman 13SE	.49
Ohio	Philo	103	20	2 Stations	38	18+	Tiffin	4.59	Lancaster 2NW	.08
Oklahoma	2 Stations	112	11+	Anadarko	45	26	Kansas 1ESE	4.73	Baird	.00
Oregon	do	104	16	Minam 7NE	16	26	Otis 2NE	4.70	Ironside 2W	.00
Pennsylvania	Carlisle	104	20	Clermont 4NW	31	18	Phil. Drexel Inst. of Tech.	8.82	Arendtsville	.47
Puerto Rico	Utuado	96	13	2 Stations	60	23+	Naguabo 6W	16.61	Cambalache	.70
Rhode Island	2 Stations	88	8	Kingston	42	25+	Block Island WBAP	6.74	Providence WBAP	2.73
South Carolina	Little Mountain	99	7	Longcreek 1N	52	12	Hilton Head	13.85	Winthrop College	.81
South Dakota	Vivian	110	27	Deerfield 5NW	25	28	Wessington Springs 9SW	7.31	2 Stations	.22
Tennessee	Brownsville	105	19	Mountain City 2	40	11	Memphis WB City	5.33	Sevierville 1SE	.18
Texas	Gonzales 2	114	10	Clarendon	49	26	Arthur City	7.51	Several Stations	.00
Utah	2 Stations	109	15	Williams Ranch	18	31	Boulder	1.91	16 Stations	.00
Vermont	Bellows Falls	91	21	Somerset	35	19	West Burke	6.04	Rochester	1.66
Virginia	Waverly Hills	100	20	2 Stations	40	11	Bohannon 2SW	7.19	Riverton	.14
Washington	John Day Dam	103	1	Anatone	30	29	Amanda Park	7.19	Priest Rapids Dam	.17
West Virginia	2 Stations	103	20	Canaan Valley	33	19	Buckeye	3.92	Harpers Ferry	.45
Wisconsin	do	96	23+	Newald	30	10	Rice Lake	10.19	Fontana	1.04
Wyoming	Spencer 10NE	101	14+	Bondurant 3NW	13	31	Lake Yellowstone	2.77	Sage 4NNW	.00

+ And also on an earlier date or dates.

NOTE: Dates in the above Condensed Climatological Summary apply to the period 24 hours prior to time of observation. In some cases the actual occurrence is on the calendar date preceding that shown. (See individual Climatological Data for times of observations).

CLIMATOLOGICAL DATA

ENGLISH UNITS

State and Station	Elevation (ground)	Pressure		Temperature											Average relative humidity	Precipitation							Wind					No. of days (sunrise to sunset)			Sky cover, tenths (sunrise to sunset)	Possible sunshine
												No of days							No. of days		Snow, Sleet				Fastest mile							
		Station ∅	Sea level	Average maximum	Average minimum	Average	Departure from normal	Highest	Date	Lowest	Date	Max. 90 F. or above	Min. 32 F. or below	Average dew point		Total	Departure from normal	Greatest in 24 hours	.01 inch or more	With thunderstorms	Total	Maximum depth on ground	Average speed	Prevailing direction	Speed	Direction	Date	Clear, 0-3	Partly cloudy, 4-7	Cloudy, 8-10		
ALABAMA	Ft.	Mb.	Mb.	F.	F.	F.	F.	F.		F.				F.	%	In.	In.	In.			In.	In.	M.p.h.		M.p.h.							%
BIRMINGHAM	610	991.4	1016.3	94	71	82.1	2.5	101	7	62	11	27	0	68	66	3.49	-1.36	1.08	12	11	0.0	0	6.7	NE	43	N	5	8	14	9	5.3	73
HUNTSVILLE	605	992.9	1015.9	94	69	81.3	1.1	99	20+	61	11	29	0	65	62	0.72	-2.57	0.52	5	6	0.0	0	8.3	SE	35*	NW	7	12	12	7	4.7	
MOBILE	211	1013.0	1015.2	91	73	82.1	1.0	98	8	68	11	22	0	72	77	3.01	-3.43	0.96	13	12	0.0	0	5.1	ENE	23*	E	5	5	14	12	5.8	
MONTGOMERY	195	1007.7	1015.8	94	73	83.5	1.8	99	7	68	15+	30	0	70	68	3.41	-0.69	2.40	9	7	0.0	0	6.8	ENE	32	NE	8	10	16	5	5.0	69
ALASKA												B																				
ANCHORAGE	90	1007.3	1012.2	64	50	56.8	1.2	71	1	37	31	4	0	50	77	1.92	-0.65	0.75	12	0	0.0	0	5.3	SSE	23*	S	30	6	0	25	7.9	41
ANNETTE	110	1011.3	1015.3	65	53	59.1	1.2	74	7+	47	17	8	0	53	83	8.20	0.69	1.54	18	0	0.0	0	6.2	SSE	22*	SE	9	2	4	25	8.5	
BARROW	22	1008.2	1009.0	47	38	42.5	4.6	64	14	30	30	0	4	40	92	1.46	0.56	0.29	20	0	0.2	T	10.6	E	26*	WSW	29	0	0	31	9.7	
BARTER ISLAND	39	1007.5	1009.5	46	36	41.3	1.3	64	11	31	24+	0	5	38	90	1.02	-0.03	0.49	7	0	1.7	T	9.5	ENE	24*	WSW	31	1	7	23	8.5	
BETHEL	125	1009.1	1010.6	59	47	52.7	0.4	72	11+	39	31	3	0	48	85	3.53	-0.67	1.01	17	1	0.0	0	12.2	SSW	35*	SSW	26	0	4	27	9.2	
COLD BAY	94	1010.0	1014.1	56	48	52.1	0.8	69	26	41	24+	0	0	49	89	1.98	-2.27	0.83	19	0	0.0	0	17.5	SSE	44*	SE	1	0	2	29	9.4	
CORDOVA	40	1011.4	1013.2	61	47	54.0	1.6	66	19+	36	31	0	0	50	88	4.85	-3.21	1.66	19	0	0.0	0	4.6	E	15*	WNW	14	0	5	26	8.9	
FAIRBANKS	436	993.5	1010.6	67	49	58.0	3.7	87	1	30	31	13	1	50	78	4.03	1.83	1.50	11	1	0.0	0	6.0	SW	25*	SW	30+	2	7	22	7.7	
JUNEAU	17	1012.4	1013.5	62	48	54.8	0.7	74	2	40	28	2	0	49	83	5.21	0.19	1.37	20	0	0.0	0	6.9	NNW	26*	ESE	23	1	6	24	8.7	23
KING SALMON	43	1010.7	1012.9	62	47	54.3	- 0.3	78	28	37	31	3	0	48	82	2.54	-0.89	0.42	16	0	0.0	0	10.2	SW	28*	SW	23	0	5	26	8.8	
KOTZEBUE	10	1008.2	1008.7	58	49	53.6	3.0	75	12	36	31	3	0	49	84	1.18	-0.98	0.36	13	1	0.3	0	10.6	WNW	46*	W	29	0	5	26	9.0	
MC GRATH	334	999.2	1011.8	63	46	54.6	0.5	82	1	29	31	6	1	47	79	1.85	-1.94	0.52	20	2	0.0	0	5.5	SW	23*	S	26	1	6	24	8.4	
NOME	13	1008.3	1009.0	56	46	50.9	1.9	67	12	32	30	0	1	47	85	0.73	-3.07	0.20	14	0	T	0	11.7	N	33*	WSW	29	2	5	24	8.4	32
ST. PAUL ISLAND	22	1008.2	1009.3	51	44	47.4	- 0.2	54	26	41	23+	0	0	46	96	4.89	1.60	1.31	21	0	0.0	0	15.9	S	40*	ESE	24	0	0	31	10.0	
SHEMYA	122	1003.7	1007.4	51	46	48.5	- 1.2	54	20	44	29	0	0	47	97	7.24	5.12	1.67	24	0	0.0	0	16.5	WSW	55*	SSW	5	0	0	31	10.0	
YAKUTAT	28	1012.0	1013.2	62	48	54.7	0.9	69	15+	39	31	0	0	51	88	5.85	-5.07	3.15	16	0	0.0	0	4.4	E	16*	ESE	22+	0	6	25	8.8	
ARIZONA																																
FLAGSTAFF	6993	795.5	1017.1	82	48	64.9	0.5	89	12	37	25	0	0	38	42	0.26	-2.58	0.12	4	11	0.0	0	6.3	SW	21*	SSW	5+	14	10	7	4.2	
PHOENIX	1109	971.2	1009.2	107	76	91.7	2.7	113	13+	62	31	31	0	52	28	0.25	-0.87	0.24	2	5	0.0	0	5.7	W	32*	NE	1	18	13		2.5	96
PRESCOTT	5014	849.6	1013.4	92	61	76.2	2.8	101	14	48	31	20	0	41	33	0.11	-2.55	0.10	2	8	0.0	0	7.6	SSW	32	E	14	17	8	6	3.7	81
TUCSON	2584	924.8	1010.3	101	73	87.0	3.4	107	11	65	31	31	0	51	33	0.48	-2.40	0.21	4	11	0.0	0	9.1	S	30	W	15	14	12	5	4.1	88
WINSLOW	4880	854.0	1014.2	95	60	77.5	- 0.8	103	15	46	25	28	0	42	34	0.74	-0.69	0.31	4	4	0.0	0	9.0	SW	33*	W	12	15	12	4	4.1	
YUMA	199	1003.7	1008.8	111	81	95.9	2.4	117	11	68	31	31	0	57	32	T	-0.50	T	0	0	0.0	0	7.9	WSW	36	SE	15	24	5	2	1.9	93
ARKANSAS																																
FORT SMITH	449	998.0	1014.6	96	68	82.0	- 0.3	106	11+	55	26	28	0	67	67	2.55	-0.37	2.18	4	6	0.0	0	6.7	ENE	38	NW	24	18	9	4	3.5	78
LITTLE ROCK	257	1002.4	1015.1	96	69	82.8	1.5	106	7	60	18	28	0	67	66	2.40	-0.42	1.52	5	4	0.0	0	6.8	SE	34	W	24	17	8	6	3.6	75
TEXARKANA	361		1014.9	95	72	83.2	0.6	102	12	64	27	28	0	71	72	2.12	-0.95	0.56	8	9	0.0	0	7.5	SW								
CALIFORNIA																																
BAKERSFIELD	494	995.9	1013.2	95	66	80.5	- 1.2	102	16	60	29+	24	0	51	38	0.00	0.00	0.00	0	0	0.0	0	7.1	NW	18*	NNW	22	30	1		0.3	
BISHOP	4108	874.4		96	52	73.9	0.1	103	13	43	29	30	0			T	-0.12	T	0	1	0.0	0						28	3		0.7	
BLUE CANYON	5280	841.9		76	58	66.9	- 0.8	86	25+	48	9	0	0			0.31	0.25	0.30	3	2	0.0	0	7.3	SSW	26	SSW	7	25	5	1	1.6	
BURBANK	699	987.5	1013.0	89	62	75.3	1.2	97	14+	57	22	16	0	57	60	T	-0.05	T	0	0	0.0	0	6.7	ESE	17*	ESE	15	26	3		1.5	
EUREKA I	43	1015.6		62	53	57.7	1.0	69	6	48	27	0	0			1.92	1.82	0.93	5	0	0.0	0	5.6	NW$	18	SW	6	5	9	17	6.9	44
FRESNO	326	1000.3	1012.2	96	62	78.8	0.4	104	15+	55	30	25	0	51	41	0.00	-0.01	0.00	0	0	0.0	0	6.5	WNW	25	NW	27	30	1		0.4	98
LONG BEACH	34	1012.2	1013.7	83	59	71.3	- 1.1	91	14	56	24+	3	0	60	76	0.00	-0.03	0.00	0	0	0.0	0	5.9	WNW	18*	W	23+	23	8		2.5	
LOS ANGELES	97	1010.2	1014.0	77	63	69.6	1.5	84	8	60	13+	0	0	60	78	0.00	-0.02	0.00	0	0	0.0	0	6.5	WSW	22*	WSW	9	17	14		2.8	
LOS ANGELES U	312			85	63	74.1	1.0	94	16	59	22+	6	0	59	66	0.00	-0.04	0.00	0	0	0.0	0	5.0	W$	23	W	9	26	5		1.7	90
MT SHASTA R	3544	893.7		82	49	65.5	- 1.2	93	15+	42	27	4	0			0.81	0.63	0.42	3	0	0.0	0						25	3	3	1.9	
OAKLAND	3	1015.2	1015.4	74	56	65.2	1.0	95	27	53	27	1	0	53	72	0.05	0.02	0.04	2	0	0.0	0	10.8	WNW	[illegible]	WNW	5	18	9	4	3.4	
POINT ARGUELLO	364	1001.4		66	52	59.0	0.0	92	28	45	7	1	0			0.06	0.04	0.02	5	0	0.0	0	7.0		18*	WNW	28+	8	7	16	6.3	
RED BLUFF	341	1000.0	1012.4	94	64	79.0	- 2.0	108	15	56	6	23	0	46	36	0.15	0.09	0.15	1	2	0.0	0	8.7	[illegible]	25	SE	3	26	3	2	1.6	94
SACRAMENTO	17	1012.5	1013.6	93	57	74.9	- 1.2	104	15	52	30	22	0	54	57	0.13	0.11	0.13	1	2	0.0	0	6.7	[illegible]	23	[illegible]	17	29	2		0.7	98
SACRAMENTO I	23			90	58	74.4	- 0.4	102	15	54	30+	20	0			0.13	0.09	0.13	1		0.0	0										
SANDBERG R	4517	864.9		85	63	74.2	0.9	96	14+	52	5	9	0			0.00	-0.09	0.00		0	0.0	0	11.1	NNW	28*	NNW	28	29	2		0.4	
SAN DIEGO	13	1010.2	1013.2	77	64	70.5	- 0.2	86	9	61	6+	0	0	61	76	T	-0.08	T	0	0	0.0	0	7.0	NW	19	NW	7	22	9		3.0	75
SAN FRANCISCO	8	1015.2	1016.0	73	54	63.6	0.8	92	27	51	26+	1	0	53	76	0.03	0.01	0.03	2	0	0.0	0	12.1	WNW	37	WNW	16	20	8	3	2.9	
SAN FRANCISCO [illegible]	52			66	54	60.0	0.6	86	27	50	2	0	0			0.07	0.03	0.06	2	0	0.0	0	9.7	W$	26	W	29+					69
SANTA MARIA	238	1006.4	1015.3	74	52	62.8	0.4	103	28	48	24	1	0	54	80	T	-0.03	T	0	0	0.0	0	6.6	WNW	29*	WNW	30	22	9		2.5	
COLORADO																																
ALAMOSA	753	776.8		82	41	61.8	- 1.2	88	10+	30	25	0	1			0.22	-0.76	0.09	6	9	0.0	0						19	11	1	3.0	

See footnotes at end of table

CLIMATOLOGICAL DATA

ENGLISH UNITS

State and Station	Elevation (ground)	Pressure		Temperature											Average relative humidity	Precipitation							Wind					No of days sunrise to sunset			Sky cover, tenths (sunrise to sunset)	Possible sunshine
											No of days								No of days		Snow Sleet				Fastest mile							
		Station O	Sea level	Average maximum	Average minimum	Average	Departure from normal	Highest	Date	Lowest	Date	Max. 90 F or above	Min 32 F or below	Average dew point		Total	Departure from normal	Greatest in 24 hours	.01 inch or more	With thunderstorms	Total	Maximum depth on ground	Average speed	Prevailing direction	Speed	Direction	Date	Clear, 0-3	Partly cloudy, 4-7	Cloudy, 8-10		
COLORADO	Ft.	Mb.	Mb.	F.	F.	F.	F.	F.		F.				F.	%	In.	In	In			In.	In.	M p.h.		M p.h.							%
COLORADO SPRINGS	6173	815.8	1015.6	87	54	70.6	1.9	96	14+	44	25	13	0	38	38	0.15	-2.01	0.05	5	12	0.0	0	8.9	NNE	25*	N	30	16	12	3	3.7	
DENVER	5283	840.5	1013.6	90	55	72.5	0.5	100	14+	43	31	21	0	40	37	0.46	-0.82	0.28	7	4	0.0	0	9.4	SSW	42	SW	8	15	10	6	4.2	77
GRAND JUNCTION	4849	860.5	1012.7	91	61	75.9	0.4	99	15+	51	25	21	0	32	23	0.15	-0.92	0.08	3	8	0.0	0	6.7	SE	33	NW	27	17	10	4	3.3	85
PUEBLO	4639	856.4	1013.1	92	58	75.0	0.4	103	9	49	25	23	0	45	40	0.51	-1.34	0.39	5	6	0.0	0	9.9	SE	68	N	15	19	10	2	3.2	83
CONNECTICUT																																
BRIDGEPORT	7	982.8	1017.7	78	61	69.7	- 2.6	87	8	54	19	0	0	62	78	4.41	-0.04	1.98	12	5	0.0	0	11.1	SSW	29*	ENE	9	9	11	11	5.6	
HARTFORD	169	1010.6	1016.7	80	58	69.2	- 1.0	90	6	49	24+	1	0	61	79	6.27	2.26	2.85	9	4	0.0	0	7.1	S	24	N	29+	5	12	14	6.8	65
NEW HAVEN	6	1016.8		78	61	69.2	- 1.4	90	8	51	19	1	0			4.06	-0.18	1.71	9	5	0.0	0	7.0		31	SW	21	9	11	11	5.7	65
DELAWARE																																
WILMINGTON	78	1013.6	1016.9	83	63	72.9	- 1.4	94	20	55	12+	3	0	62	73	1.87	-3.72	0.52	8	9	0.0	0	7.3	WNW	29*	NW	9	10	12	9	5.0	
DIST.OF COLUMBIA																																
WASHINGTON U	72			85	67	76.2	0.4	98	20	58	11	5	0			0.34	-4.15	0.30	2													
WASH NATL AP	14	1012.7	1017.1	86	67	76.8	0.3	99	20	59	12	6	0	63	66	0.55	-4.35	0.28	4	3	0.0	0	7.5	S	27	NNW	9	9	11	11	5.5	72
FLORIDA																																
APALACHICOLA U	13	1013.3		89	75	82.1	0.6	96	6	70	8	12	0			4.29	-3.45	2.48	10	11	0.0	0	6.1		38	NW	7	10	12	9	5.1	71
DAYTONA BEACH	31	1014.5	1016.3	88	73	80.8	0.1	92	4	70	30+	8	0	71	78	8.50	2.13	2.05	15	20	0.0	0	7.1	SW	22*	SSW	16	0	15	16	7.5	
FORT MYERS	13	1014.8		91	76	83.9	1.2	95	19	75	25+	28	0			10.89	3.51	3.22	20	26	0.0	0	8.2		28*	ESE	21	0	19	12	7.0	
JACKSONVILLE	24	1015.1	1016.4	92	73	82.4	0.1	98	6	67	13	22	0	72	77	10.07	3.22	3.49	14	10	0.0	0	6.2	SE	35	N	1	4	17	10	5.8	54
KEY WEST	5	1014.2	1015.4	91	79	85.0	1.4	93	9+	71	13	24	0	72	75	8.03	3.70	2.40	20	20	0.0	0	9.6	ESE	35	SE	19+	0	19	12	7.0	63
LAKELAND U	214			90	74	82.0	0.1	94	18	70	31+	25	0			5.99	-1.09	1.92	22	27	0.0	0	5.2					0	16	15	7.4	51
MIAMI BEACH	9			89	79	84.0	1.1	93	10+	74	14	11	0			2.31	-2.75	0.66	14		0.0	0	6.2		26	SE	21	1	19	11	6.9	49
MIAMI	7	1014.4	1015.6	89	76	82.9	0.6	93	7+	73	12+	15	0	74	77	8.02	1.05	2.08	19	22	0.0	0	7.1	SE	40*	SW	9	1	13	17	7.4	
ORLANDO	106	1011.5	1016.1	92	74	82.8	1.0	96	7	71	24+	25	0	73	81	5.11	-1.83	1.25	15	15	0.0	0	7.1	SW	24*	ESE	24	1	14	16	7.4	
PENSACOLA U	13			90	75	82.4	0.4	97	10+	71	11	13	0			2.75	-4.84	0.95	10	10	0.0	0	7.8	ENE	21	SW	4					72
TALLAHASSEE	58	1013.4	1016.1	91	70	80.6	- 0.5	98	30	66	13	22	0	70	77	5.95	-0.98	3.18	10	14	0.0	0	7.6	E	58*	NNE	8	6	17	8	5.7	
TAMPA	19	1014.4	1015.9	90	74	81.9	- 0.1	95	30	71	22+	18	0	73	80	10.14	1.90	2.06	20	23	0.0	0	8.4	E	30*	SSE	21	0	9	22	7.9	54
WEST PALM BEACH	15	1014.8	1015.9	91	75	82.9	- 0.1	96	4	70	15	26	0	74	78	7.64	0.90	1.50	21	23	0.0	0	7.6	SE	35*	NW	15	2	9	20	7.7	
GEORGIA																																
ATHENS	803	988.2	1016.8	90	67	78.5	- 0.5	95	5	62	25	17	0	68	74	3.67	0.04	1.50	11	7	0.0	0	6.3	ENE	37*	NNW	13	9	15	7	5.3	
ATLANTA	1005	975.2	1016.6	87	66	76.6	- 1.8	92	29+	61	12	5	0	65	72	1.21	-2.39	0.42	6	5	0.0	0	6.0	ENE	23*	W	7	11	14	6	5.1	77
AUGUSTA	143	1009.0	1015.7	91	69	80.0	- 0.2	96	7	62	12	23	0	70	76	3.43	-0.46	0.95	11	9	0.0	0	5.3	SE	29*	W	6	4	14	13	6.2	
COLUMBUS	385	1002.2		92	70	80.9	0.2	96	30+	65	30	26	0			2.82	-1.82	0.91	9	8	0.0	0	5.8		40*	W	8	10	17	4	4.9	
MACON	356	1002.2	1015.7	92	70	81.0	- 0.3	98	6	63	30	25	0	69	72	4.95	0.77	1.36	12	13	0.0	0	6.4	NE	35	NE	8	10	10	11	5.4	69
ROME	637	993.6		92	65	78.3	- 0.1	96	30+	57	29	25	0			1.83	-1.93	1.02	7	8	0.0	0						11	18	2	4.6	
SAVANNAH	48	1013.8	1016.4	90	71	80.2	- 0.8	96	1	66	13	17	0	72	81	7.69	1.07	1.86	17	15	0.0	0	6.6	NNE	31	S	1	6	14	11	6.0	70
THOMASVILLE U	283			93	71	81.9	0.0	97	30+	66	12	25	0			6.10	0.54	2.75	12	15	0.0	0						12	8	11	5.3	
HAWAII																																
HILO	31	1015.8	1017.7	84	68	75.6	- 0.2	86	30	64	12	0	0	66	75	4.15	-7.30	1.40	23	0	0.0	0	6.9	WSW	15*	ENE	28+	3	14	14	6.6	44
HONOLULU	7	1017.0	1017.4	86	74	80.0	0.6	87	30+	71	31+	0	0	66	65	0.32	-0.57	0.10	6	0	0.0	0	14.5	ENE	33	E	15	7	19	5	5.2	89
LIHUE	115	1013.0	1018.4	85	73	79.2	0.8	87	20+	69	10+	0	0	68	72	1.82	-0.64	0.31	21	0	0.0	0	13.0	NE	26	NE	1	4	19	8	6.1	72
IDAHO																																
BOISE	2838	919.1	1013.7	86	56	70.7	- 1.4	97	16+	40	29	13	0	41	38	0.12	-0.04	0.08	4	1	0.0	0	7.7	SE	26	S	21	20	7	4	2.9	85
IDAHO FALLS 42NW R	4790			84	43	63.5	- 2.9	96	15	25	31	7	2			0.12	-0.37	0.09	4													
IDAHO FALLS 46W R	4933	850.0		83	46	64.6	- 2.0	96	15	31	31	6	1			0.03	-0.45	0.02	2	2	0.0	0	8.1	SW	40A	WSW	21					
LEWISTON	1436	963.1		84	56	69.8	- 1.9	101	15	43	27	9	0			0.61	0.18	0.31	5	3	0.0	0						15	7	9	4.6	
POCATELLO	4444	864.9	1015.1	84	51	67.3	- 2.8	97	15	39	31+	9	0	37	37	1.01	0.46	0.90	5	5	0.0	0	9.4	WSW	34	SW	28+	19	9	3	3.3	79
ILLINOIS																																
CAIRO U	314	1002.7		89	68	78.6	- 1.3	98	20	59	15	15	0			5.28	2.18	1.79	9	6	0.0	0	6.5	S$	36	N	7	11	15	5	4.5	74
CHICAGO O HARE	658	991.0	1015.4	84	60	71.8		94	24+	48	18	7	0	60	69	1.62		1.05	8	3	0.0	0	8.1	SSW	25*	WSW	24	9	13	9	5.3	
CHICAGO MIDWAY	610	993.1	1015.6	84	65	74.7	0.3	96	20	53	15	8	0	60	63	0.85	-2.31	0.55	5	2	0.0	0	8.4	SSW	28	SW	24	11	14	6	4.9	72
MOLINE	582	1003.8	1015.0	85	61	72.9	- 0.7	96	23	48	18	8	0	62	72	1.95	-1.58	1.28	4	6	0.0	0	7.2	S	32	NW	24	10	12	9	5.2	71
PEORIA	652	993.9	1016.0	85	62	73.6	- 0.7	96	23	50	15	10	0	61	68	1.80	-1.08	1.49	5	5	0.0	0	9.2	S	33	W	24	11	14	6	4.5	79

See footnotes at end of table

CLIMATOLOGICAL DATA

ENGLISH UNITS

State and Station	Elevation (ground)	Pressure		Temperature											Average relative humidity	Precipitation							Wind					No. of days (sunrise to sunset)			Sky cover, tenths (sunrise to sunset)	Possible sunshine
		Station Ø	Sea level	Average maximum	Average minimum	Average	Departure from normal	Highest	Date	Lowest	Date	No. of days: Max. 90 F. or above	No. of days: Min. 32 F. or below	Average dew point		Total	Departure from normal	Greatest in 24 hours	No. of days: 01 inch or more	No. of days: With thunderstorms	Snow, Sleet: Total	Snow, Sleet: Maximum depth on ground	Average speed	Prevailing direction	Fastest mile: Speed	Fastest mile: Direction	Fastest mile: Date	Clear, 0-3	Partly cloudy, 4-7	Cloudy, 8-10		
ILLINOIS	Ft.	Mb.	Mb.	F.	F.	F.	F.	F.		F.				F.	%	In.	In.	In.			In.	In.	M.p.h.		M.p.h.							%
ROCKFORD	728	988.4	1015.4	83	61	71.7	- 0.8	93	23	48	18	1	0	60	70	2.57	-1.57	1.63	6	2	0.0	0	9.1	SSE	35*	WSW	24	12	12	7	4.4	
SPRINGFIELD	588	992.0	1015.0	85	62	73.4	- 1.8	98	20	47	15	6	0	63	71	1.11	-1.63	0.54	8	8	0.0	0	8.4	S	37	SW	24	15	11	5	4.3	78
INDIANA																																
EVANSVILLE	381	1000.1	1015.8	90	63	76.4	- 0.4	100	20	52	16+	16	0	64	69	2.11	-0.96	1.28	7	4	0.0	0	5.7	NW	30	NW	4	11	14	6	4.7	62
FORT WAYNE	791	985.5	1016.5	86	59	72.6	0.1	101	20	43	15	8	0	59	67	1.52	-1.52	1.28	4	3	0.0	0	8.0	S	28	W	31	13	12	6	5.0	75
INDIANAPOLIS	793	986.5	1016.2	83	62	72.4	- 1.3	97	20	52	15	2	0	62	74	5.78	2.75	2.44	5	2	0.0	0	6.6	SSE	28*	NW	6	11	13	7	4.9	71
SOUTH BEND	768	987.9	1015.7	83	60	71.3	- 0.7	95	24	47	15	3	0	59	69	3.49	-0.06	1.76	4	3	0.0	0	8.1	S	35*	SSW	31	15	7	9	4.6	
IOWA																																
BURLINGTON	694	990.4	1015.6	86	63	74.5	- 0.1	96	23	53	26	11	0	62	69	2.10	-1.51	0.85	7	7	0.0	0	8.7	S	23	W	11	12	11	8	4.8	79
DES MOINES	948	984.3	1015.0	85	64	74.2	- 0.3	96	23+	54	25+	5	0	64	73	1.60	-2.07	0.68	7	7	0.0	0	6.5	SSE	42	S	30	11	10	10	4.9	68
DUBUQUE	1065	989.9		80	60	70.2	- 0.3	91	23	52	18+	1	0	59	64	2.05	-1.68	1.67	6	5	0.0	0			25*			10	10	11	5.2	
SIOUX CITY	1095	973.4	1013.9	84	62	72.8	- 1.3	94	27	48	25	6	0	63	75	2.64	-0.02	1.01	11	12	0.0	0	8.2	SSE	47	N	9	16	8	7	4.1	70
WATERLOO	868	983.5	1015.1	83	59	70.7	- 1.5	91	23	46	17	4	0	62	75	3.74	0.32	2.03	7	8	0.0	0	8.5	SE	29*	NW	29	13	6	12	5.2	
KANSAS																																
CONCORDIA U	1470	964.1	1013.1	91	65	77.9	- 1.1	104	18	55	25	21	0	60	59	2.73	-0.42	1.05	8	12	0.0	0	12.0	SSE	37	E	4	20	7	4	3.0	82
DODGE CITY	2594	927.1	1013.0	93	65	78.9	- 0.3	106	10	55	25	24	0	57	53	1.64	-0.72	0.92	6	6	0.0	0	11.2	SSE	35	N	23	19	12		2.9	90
GOODLAND	3645	889.0	1013.3	91	58	74.3	- 0.4	102	10	52	31+	17	0	54	55	1.46	-0.82	0.47	6	8	0.0	0	11.3	S	46*	NW	19	22	9		2.3	
TOPEKA	877	978.9	1013.9	89	65	76.7	- 1.7	102	19	52	17	13	0	64	68	6.64	2.35	4.48	6	7	0.0	0	11.0	S	56	N	6	14	14	3	3.7	83
WICHITA	1321	965.7	1013.2	93	68	80.8	0.0	107	10	56	25	23	0	62	58	2.95	0.08	1.37	4	3	0.0	0	11.0	S	40			20	9	2	2.6	85
KENTUCKY																																
COVINGTON	869	984.3	1015.9	89	61	75.1	0.0	102	20	52	15	16	0	60	64	2.14	-0.46	1.14	3	4	0.0	0	6.1	SSW	27*	NNW	6	7	18	6	4.9	
LEXINGTON	979	981.2	1016.4	87	64	75.6	- 0.4	98	20	54	11+	9	0	62	67	2.71	-0.50	1.44	7	6	0.0	0	5.6	SE	25*	NW	21	16	13	2	3.8	
LOUISVILLE	474	996.9	1015.8	89	64	76.4	0.7	101	20	53	11	14	0	63	66	2.20	-0.77	1.19	5	3	0.0	0	6.5	S	26	SE	7	14	13	4	4.0	64
LOUISIANA																																
ALEXANDRIA	92	1010.7	1015.2	96	71	83.5		104	8	66	11	28	0	71	72	2.69		1.90	10	9	0.0	0	5.0	SW				12	15	4	4.2	
BATON ROUGE	64	1012.4	1015.4	95	74	84.4	3.0	102	10+	68	12	30	0	72	74	4.54	-0.72	1.60	10	15	0.0	0	6.0	NE				12	15	4	4.7	
BURRWOOD R	5		1015.8											76	76								8.3	SE								
LAKE CHARLES	14	1013.5	1015.0	94	75	84.2	1.5	103	8	71	27+	26	0	74	78	17.36	12.56	14.10	11	13	0.0	0	7.4	SSW	29	NNW	14	12	15	4	4.8	
NEW ORLEANS	3	1013.2	1015.3	91	73	82.3	0.9	97	8	67	12	24	0	75	82	2.41	-2.93	0.88	11	15	0.0	0	5.6	NE	35*	SSW	1	12	12	7	5.0	
NEW ORLEANS AUDUBON	10			92	74	83.3		97	10+	70	26	27	0																			
SHREVEPORT	252	1005.9	1015.2	97	73	84.8	1.5	107	12	64	18	29	0	68	63	3.96	1.41	2.01	5	3	0.0	0	8.7	S				19	8	4	3.1	83
MAINE																																
CARIBOU	624	993.0	1016.2	72	52	62.2	- 0.4	85	26	40	21	0	0	55	81	3.05	-0.62	1.04	10	3	0.0	0	8.3	SSE	23*	WNW	15	4	13	14	7.0	
PORTLAND	61	1012.6	1016.7	75	55	64.8	- 2.0	84	20	42	24	0	0	59	83	2.87	0.45	0.66	11	2	0.0	0	8.3	S	31	N	30	6	10	15	6.6	51
MARYLAND																																
BALTIMORE	146	1012.1	1016.9	86	63	74.6	- 0.4	100	20	54	12	7	0	61	67	2.26	-2.93	1.63	5	4	0.0	0	8.2	W	22	N	28+	10	12	9	5.1	65
BALTIMORE U	14			86	69	77.7	0.4	100	20	62	24+	9	0			0.30	-4.30	0.10	6													
FREDERICK	294			86	60	72.8	- 1.1	100	20	51	19+	7	0			0.23	-4.07	0.07	6		0.0	0										
MASSACHUSETTS																																
BLUE HILL OBS R	629	992.7	1015.8	76	59	67.7	- 1.7	87	6	53	23+	0	0		67	6.20	2.15	3.28	13		0.0	0	12.7	SSW	39	SW	20					56
BOSTON	15	1011.7	1016.3	78	62	70.0	- 1.7	89	6	55	23	0	0	60	74	3.72	0.06	1.88	10	3	0.0	0	13.1	S	37	N	29	11	5	15	5.9	61
NANTUCKET	43	1016.0	1016.6	72	60	66.0	- 1.6	82	27	49	25	0	0	61	87	3.85	0.17	3.08	8	2	0.0	0	10.9	S	37	NW	29	10	5	16	6.3	52
PITTSFIELD	1170			76	53	64.7	- 1.5	87	6	43	23	0	0			3.56	-0.34	1.69	8		0.0	0										
WORCESTER	986	981.2	1017.2	75	57	66.1	- 2.2	84	6	49	19+	0	0	56	73	4.15	-0.09	1.47	11	1	0.0	0	7.5	SW	21*	WSW	20	7	11	13	6.3	
MICHIGAN																																
ALPENA	689	990.5		78	50	64.0	- 1.5	93	24	34	18	2	0	55	61	2.82	-0.21	1.05	10	5	0.0	0	6.1	SE	20	S	24	12	11	8	5.0	71
DETROIT	619	990.1	1016.4	81	61	71.0	- 1.3	88	7	53	15	0	0	60	70	3.56	0.70	1.19	9	9	0.0	0	8.1	S	30	N	8	12	11	8	4.5	67
DETROIT W WAYNE CO	633	997.5	1016.1	81	56	68.6	- 2.8	90	4	46	15	1	0	59	75	3.10	0.26	0.74	10	8	0.0	0	6.7	SW				11	11	9	4.8	
DETROIT WILLOW RUN	711	987.9	1016.0	83	59	70.7	- 1.9	92	24+	48	15	4	0	60	73	3.23	0.39	0.81	8	8	0.0	0	7.7	SW	24	WSW	31	11	12	8	4.8	
ESCANABA U	594	992.7		72	57	64.2	- 1.4	82	20	47	14	0	0			3.80	0.69	1.10	14	7	0.0	0	8.9		31	NW	13	10	10	11	5.3	59
FLINT	766	989.1	1016.7	81	55	68.0	- 1.7	91	24	42	15	1	0	58	74	1.38	-1.79	0.35	10	6	0.0	0	7.0	S	22*	SSE	12	13	8	10	4.9	

See footnotes at end of table

CLIMATOLOGICAL DATA

ENGLISH UNITS

State and Station	Elevation (ground)	Pressure		Temperature											Average relative humidity	Precipitation							Wind					No of days (sunrise to sunset)			Sky cover, tenths (sunrise to sunset)	Possible sunshine
												No. of days							No. of days		Snow, Sleet				Fastest mile							
		Station Ø	Sea level	Average maximum	Average minimum	Average	Departure from normal	Highest	Date	Lowest	Date	Max. 90 F. or above	Min. 32 F. or below	Average dew point		Total	Departure from normal	Greatest in 24 hours	.01 inch or more	With thunderstorms	Total	Maximum depth on ground	Average speed	Prevailing direction	Speed	Direction	Date	Clear, 0-3	Partly cloudy, 4-7	Cloudy, 8-10		
MICHIGAN	Ft.	Mb.	Mb.	F.	F.	F.	F.	F.		F.				F.	%	In.	In.	In.			In	In.	M.p.h.		M p h							%
GRAND RAPIDS	681	991.0	1016.0	83	59	70.7	0.2	94	24	48	18+	3	0	56	63	1.08	-1.62	0.38	6	3	0.0	0	8.4	S	30	W	20	14	10	7	4.8	73
LANSING	1082	984.1	1015.9	82	57	69.3	- 0.9	94	24	44	18	2	0	57	70	1.60	-1.45	0.35	11	5	0.0	0	10.1	SSE	34	W	20+	12	10	9	5.0	76
MARQUETTE U	677	987.7		73	55	64.1	- 1.7	90	28	47	10	1	0			3.37	0.34	0.92	11	7	0.0	0	7.4	SW$	29	NW	13	8	9	14	6.2	58
MUSKEGON	627	992.8	1015.8	81	59	70.1	0.8	93	24	47	15	2	0	59	72	1.01	-1.90	0.30	7	6	0.0	0	8.2	SSW	25*	SW	20	15	6	10	4.8	
SAULT STE MARIE	721	992.6	1015.2	74	52	63.2	- 0.3	86	6	38	18	0	0	54	77	4.14	1.25	2.03	11	8	0.0	0	7.6	WNW	20*	SW	15	6	11	14	6.3	57
MINNESOTA																																
DULUTH	1426	973.7	1015.1	73	51	61.9	- 2.4	82	27+	41	17	0	0	52	73	4.40	0.59	1.57	10	7	0.0	0	10.3	ENE	45	SE	6	10	8	13	5.9	59
INTERNATIONAL FALLS	1179	972.9	1013.9	75	51	63.0	- 0.1	86	27+	40	17	0	0	54	76	2.62	-1.02	0.80	9	7	0.0	0	6.6	SE	30*	NW	5	10	7	14	5.7	
MINNEAPOLIS	1822	981.5	1014.7	80	57	68.3	- 2.2	91	21+	42	17	2	0	59	73	3.47	0.29	1.21	12	9	0.0	0	8.9	SSE	39	ENE	6	11	11	9	4.8	67
ROCHESTER	1297	968.1	1015.5	79	57	68.1	- 1.7	88	19	45	17	0	0	59	74	5.48	1.69	3.08	9	8	0.0	0	10.0	S				9	13	9	5.2	
ST CLOUD	1034	977.1	1014.7	80	56	68.0	- 0.6	89	21	46	29+	0	0	44	72	3.21	-0.52	1.47	7	5	0.0	0						15	7	9	4.5	
MISSISSIPPI																																
JACKSON	305	1003.3	1015.2	94	72	83.2	1.9	99	18+	64	11	29	0	69	68	2.91	-0.43	1.60	5	11	0.0	0	6.2	S	20	SE	21+	12	14	5	4.3	79
MERIDIAN	292	1002.4	1015.8	94	69	81.9	0.7	100	18	60	11	28	0	70	75	1.35	-2.19	0.79	5	6	0.0	0	5.2	S	23*	W	4	11	15	5	4.9	
VICKSBURG U	234			92	74	82.7	1.0	95	20+	68	15	24	0			1.04	-1.97	0.73	7	7	0.0	0	6.9		27	E	19	21	7	3	3.5	85
MISSOURI																																
COLUMBIA	778	986.2	1014.0	91	65	78.2	1.0	103	19	53	26	18	0	61	60	1.32	-2.49	0.85	6	8	0.0	0	9.6	SSE	38	NW	4	17	8	6	3.7	90
KANSAS CITY	742	979.7	1013.8	91	68	79.3	0.0	103	19	57	17	17	0	63	60	3.10	-0.67	2.04	4	8	0.0	0	8.4	SSW	37	NW	23	14	13	4	3.8	79
ST JOSEPH	809	980.1		89	65	76.6	- 0.9	102	19	53	17	12	0			3.15	-1.06	2.42	9	12	0.0	0	8.6	S	25*	NNW	23+	18	11	2	3.3	
ST LOUIS	535	995.0	1015.4	87	64	75.6	- 2.2	105	19	53	15	9	0	62	67	2.29	-0.73	1.26	6	8	0.0	0	6.5	SE	38			14	11	6	4.4	79
ST LOUIS RFC	465			88	69	78.1	- 1.1	105	19	60	15	10	0			2.65	-0.97	0.89	6		0.0	0										
SPRINGFIELD	1265	968.6	1015.1	92	64	78.0	0.0	101	20+	46	26	20	0	62	64	0.78	-2.54	0.31	9	6	0.0	0	9.3	SSE	30	S	29	17	8	6	3.4	79
MONTANA																																
BILLINGS	3567	891.3	1013.1	83	56	69.4	- 1.5	97	8	44	30	10	0	44	45	1.19	0.29	0.53	9	5	0.0	0	9.3	WSW	38	NW	17	14	12	5	4.3	77
GLASGOW	2277	938.7		81	56	68.5	0.7	94	8	40	29	6	0	47	51	1.87	0.38	0.66	8	8	0.0	0						11	12	8	5.0	
GREAT FALLS	3662	888.6	1013.5	81	53	67.3	0.0	94	12	40	30	6	0	40	43	1.69	0.43	1.12	9	7	0.0	0	11.1	SW	34	W	18	10	12	9	5.4	70
HAVRE	2582	924.8		83	52	67.7	0.7	96	17+	43	29	9	0			0.93	-0.17	0.27	6	6	0.0	0	8.7	W$	45	SW	25	9	11	11	5.8	69
HELENA	3893	874.4	1014.9	80	50	64.9	- 1.3	96	12	39	30	2	0	42	49	1.80	0.91	0.83	9	10	0.0	0	7.8	WNW	35	S	21+	9	13	9	5.1	70
KALISPELL	2965	912.0		79	45	62.0	- 1.1	98	16	31	23	4	1			0.95	-0.14	0.51	9	5	0.0	0	6.1					10	9	12	5.5	
MILES CITY	2629			86	57	71.3	- 1.3	100	17+	41	30	14	0			0.37	-0.87	0.26	6	9	0.0	0	8.9	NW	35*	NW	27+	17	9	5	3.7	
MISSOULA	3190	902.8	1016.1	80	46	62.9	- 1.9	96	15	37	24+	4	0	43	55	0.59	-0.13	0.35	7	6	0.0	0	7.0	NW	49	SW	16	10	8	13	5.6	80
NEBRASKA																																
GRAND ISLAND	1841	948.6		86	60	73.2	- 3.6	97	19	49	25	10	0	59	66	1.65	-0.70	0.59	11	13	0.0	0	9.7	S				17	9	5	3.3	
LINCOLN U	1150			87	64	75.8	- 1.9	100	19	54	25	12	0			5.25	1.87	2.29	11	12	0.0	0	9.6	SE$	49	SW	2	13	12	6	3.9	79
NORFOLK	1544	959.0		85	61	72.7	- 2.5	98	27	47	25	5	0	59	59	1.29	-1.32	0.46	9	12	0.0	0						17	8	6	3.8	
NORTH PLATTE	2779	915.6	1012.7	87	58	72.7	- 1.8	99	26	47	31	11	0	55	58	0.10	-2.03	0.03	5	5	0.0	0	10.2	SSE	45	SE	14	17	12	2	2.8	87
OMAHA	978	974.8	1013.9	86	64	75.0	- 1.2	93	27+	52	25	10	0	62	68	3.80	-0.18	2.62	10	8	0.0	0	9.7	SSE	55	N	9	14	10	7	4.3	74
OMAHA N OMAHA AP	1323	966.8		84	63	73.1	- 0.8	93	19	51	25	5	0			5.59	1.45	3.15	9	10	0.0	0						13	11	7	4.5	
SCOTTSBLUFF	3950	879.7	1013.5	87	54	70.4	- 2.2	99	27	41	28	14	0	50	55	0.28	-0.73	0.26	3	6	0.0	0	9.5	NW	35*	NNW	27+	19	7	5	3.2	
VALENTINE	2587	923.7		88	56	71.6	- 1.3	104	27	41	28	14	0			1.69	-0.60	0.85	6	8	0.0	0	10.3	NW$	72	S	10	19	10	2	2.9	84
NEVADA																																
ELKO	5075	846.6	1014.9	86	44	65.1	- 1.8	96	15+	30	31	13	1	28	27	0.26	-0.04	0.24	2	3	0.0	0	6.7	SW	29*	SSW	17	20	10	1	2.4	
ELY	6257	812.1	1013.3	86	46	65.8	- 0.3	95	14	29	31	5	1	27	25	T	-0.49	T	0	2	0.0	0	10.5	SSW	43	S	9	23	8		1.9	92
LAS VEGAS	2162	945.5	1009.9	104	75	89.8	2.1	112	13	65	31	31	0	30	13	T	-0.48	T	0	0	0.0	0	12.0	SW	31*	SW	9	24	6	1	1.6	93
RENO	4404	864.2	1016.3	86	38	61.5	- 5.0	93	15+	24	29	8	4	37	44	0.08	-0.09	0.08	1	1	0.0	0	6.2	SW	34	SW	9	28	3		1.3	94
WINNEMUCCA	4299	868.9		87	46	66.7	- 0.9	100	14	33	31+	17	0	30	28	0.14	-0.01	0.14	1	0	0.0	0	8.3	W	34	S	20	22	8	1	2.2	
NEW HAMPSHIRE																																
CONCORD	339	1006.3	1017.1	79	57	67.8	0.4	88	6	43	19	0	0	58	76	2.59	-0.37	0.93	10	2	0.0	0	5.0	S	18	S	7	6	12	13	6.3	50
MT WASHINGTON OBS	6262	810.5		55	43	48.7	1.0	62	31+	32	19	0	1		65	11.20	4.55	3.92	14	1	0.0	0	19.0	W	69Y	W	14	6	8	17	6.7	39
NEW JERSEY																																
ATLANTIC CITY	58	1014.1	1017.2	82	64	73.0	- 0.7	94	20	55	24	2	0	64	75	5.29	0.39	2.81	7	5	0.0	0	8.5	S	23*	S	7	11	10	10	5.5	67
ATLANTIC CITY U	10			78	70	74.4	0.7	84	21+	63	11	0	0			4.37	-0.77	2.69	7				10.0		26*	NNW	21					

See footnotes at end of table

CLIMATOLOGICAL DATA

ENGLISH UNITS

AUGUST 1962

State and Station	Elevation (ground)	Pressure		Temperature											Average relative humidity	Precipitation							Wind					No. of days (sunrise to sunset)			Sky cover, tenths (sunrise to sunset)	Possible sunshine
												No. of days							No. of days		Snow, Sleet				Fastest mile							
		Station Ø	Sea level	Average maximum	Average minimum	Average	Departure from normal	Highest	Date	Lowest	Date	Max. 90 °F. or above	Min. 32 °F. or below	Average dew point		Total	Departure from normal	Greatest in 24 hours	.01 inch or more	With thunderstorms	Total	Maximum depth on ground	Average speed	Prevailing direction	Speed	Direction	Date	Clear, 0-3	Partly cloudy, 4-7	Cloudy, 8-10		
	Ft.	Mb.	Mb.	F.	F.	F.	F.	F.		F.				F.	%	In.	In.	In.			In.	In.	M.p.h.		M.p.h.							%
NEW JERSEY																																
NEWARK	11	1015.7	1017.1	81	65	72.9	- 1.5	93	20	57	11+	2	0	61	70	5.73	1.30	1.53	11	5	0.0	0	8.5	NNE	31*	NNW	21	10	11	10	5.8	
TRENTON U	56	1009.1		82	63	72.5	- 1.4	92	20	55	11	1	0			7.44	2.67	3.11	10	10	0.0	0	7.9	S	31	NW	20	10	11	10	5.4	65
NEW MEXICO																																
ALBUQUERQUE	5310	851.0	1013.2	93	63	77.6	0.9	98	9	57	17	28	0	41	31	T	-1.33	T	0	6	0.0	0	7.1	SE	38	W	21	24	7		2.1	88
CLAYTON	4969	848.0		91	59	75.0	1.7	98	9	51	25	19	0			0.54	-1.55	0.43	3	5	0.0	0						22	6	3	2.4	
RATON	6379	810.0		87	51	69.1	0.9	94	10+	44	29	13	0			1.28	-1.35	0.88	5	10	0.0	0						16	14	1	3.3	
ROSWELL	3619	894.0		95	59	77.4	1.3	101	28	51	27+	28	0	50	44	1.31	-0.31	0.80	4	5	0.0	0	8.4		27	SW	15	24	6	1	1.9	90
SILVER CITY	5373	838.8		92	61	76.7		97	8	55	18	23	0			0.48		0.20	4	6	0.0	0						20	9	2	3.0	
NEW YORK																																
ALBANY	277	1005.9	1016.5	80	58	69.0	- 1.0	90	31+	45	19	2	0	58	71	2.60	-0.47	1.01	9	4	0.0	0	8.1	S	32	NE	29	6	13	12	6.1	64
BINGHAMTON	1590	958.2	1016.6	77	57	66.9	0.6	91	20	47	12	1	0	59	78	2.93	-0.64	1.78	11	4	0.0	0	8.8	SSW	19	W	21+	7	11	13	6.3	61
BUFFALO	705	988.7	1016.7	80	56	68.1	- 0.3	93	31	47	22+	2	0	57	70	3.00	-0.05	1.05	14	10	0.0	0	8.7	WSW	29	W	20	6	16	9	5.8	73
NEW YORK U	132	1005.3		81	64	72.4	- 2.7	91	20	56	11+	2	0	61	74	5.71	1.27	1.64	10	5	0.0	0	7.4	SW$	24	W	21	11	14	6	4.9	60
NEW YORK LA GUARDIA	19	1014.7	1016.8	80	65	72.6	- 2.8	91	20	57	11+	1	0	61	71	5.09	0.01	1.28	9	6	0.0	0	9.9	S	24	WNW	21	9	14	8	5.6	
ROCHESTER	543	997.3	1016.5	80	58	68.9	- 0.8	94	31	47	23	3	0	58	72	3.53	0.81	1.88	12	10	0.0	0	9.0	SSW	34	W	20	7	17	7	5.7	69
SCHENECTADY	217			79	59	68.8	- 2.0	89	20	49	23+	0	0			2.55	-0.71	0.86	9	4	0.0	0						19	10	2	3.4	
SYRACUSE	417	994.3	1015.9	79	59	69.1	- 1.1	92	31	50	23+	1	0	58	71	4.63	1.38	1.30	11	8	0.0	0	10.5	WNW	30	W	21	10	14	7	5.3	74
NORTH CAROLINA																																
ASHEVILLE U	2203	939.3		83	61	72.3	- 1.2	90	20	54	25	1	0			3.47	-0.16	1.62	9	12	0.0	0	5.6	S$	35	NW	6	10	18	3	4.9	67
CAPE HATTERAS R	7	1015.2	1016.0	84	71	77.5	- 0.1	89	7	64	31	0	0	70	79	11.68	5.26	8.11	10	8	0.0	0	9.4	ENE	40	NNE	28	11	9	11	5.5	68
CHARLOTTE	735	988.9	1016.7	87	67	77.0	- 0.7	95	31	58	12	10	0	64	69	2.76	-1.46	1.45	5	4	0.0	0	6.4	NNE	20	S	15	8	16	7	5.3	74
GREENSBORO	891	985.7	1017.2	86	65	75.8	- 0.4	94	21+	56	12	9	0	64	73	1.19	-3.42	0.59	7	8	0.0	0	6.6	NE	24	NE	31	7	20	4	5.1	63
RALEIGH	433	1002.8	1016.5	86	65	75.8	- 1.1	94	21	57	12	7	0	67	77	1.98	-3.22	0.91	10	6	0.0	0	6.6	ENE	25*	NNE	21	8	14	9	5.4	59
WILMINGTON	30	1013.5	1016.5	88	69	78.8	- 0.6	93	7	62	13+	10	0	71	81	4.98	-1.88	2.88	10	6	0.0	0	8.2	N	28	NW	18	8	13	10	5.8	76
WINSTON SALEM	967	982.2	1017.2	86	66	75.8	- 1.0	94	21+	58	12	10	0	63	69	2.13	-2.18	1.28	5	7	0.0	0	7.1	NE	25*	WSW	16	11	16	4	4.6	
NORTH DAKOTA																																
BISMARCK	1647	953.0	1012.5	86	55	70.2	- 0.4	99	21	39	31	12	0	52	57	1.04	-0.69	0.72	6	6	0.0	0	6.9	WNW	47	NW	27	16	11	4	3.8	79
DEVILS LAKE U	1471	959.7		80	55	67.7	0.4	91	21	47	30	4	0			3.56	1.38	2.36	12	7	0.0	0	7.4	S$	35			14	13	4	3.9	74
FARGO	900	978.9	1012.7	84	59	71.6	2.1	97	27	49	30	6	0	60	68	3.25	0.30	2.08	6	6	0.0	0	9.3	ESE	56	W	27	14	15	2	4.1	81
WILLISTON U	1899	945.3		83	53	68.3	- 0.4	96	21	39	30	10	0	50	53	1.97	0.49	0.96	9	2	0.0	0	10.3	W$	45	NW	27	10	15	6	4.7	71
OHIO																																
AKRON	1209	978.9	1016.8	83	59	71.3	0.8	92	30	48	15	3	0	57	64	1.95	-1.16	1.37	7	6	0.0	0	6.7	S	23*	SW	6	12	12	7	4.7	
CINCINNATI OBS	761			87	64	75.5	- 0.2	100	20	54	15	12	0			1.92	-1.36	0.84	4	5	0.0	0	4.4	S	15	W	21					69
CINCINNATI U	553	993.0		88	66	77.1	0.9	100	20	56	15	15	0			1.69	-1.69	0.95	3	3	0.0	0										
CLEVELAND	777	988.7	1016.3	82	58	70.2	0.8	92	25+	44	15	6	0	60	71	1.30	-1.98	0.35	10	5	0.0	0	7.9	SSE	37	NW	20	13	9	9	4.5	78
COLUMBUS	812	986.7	1016.5	84	59	71.6	- 1.6	96	20	48	18	5	0	60	71	2.31	-0.55	1.45	7	4	0.0	0	5.6	N	35	SE	4	11	12	8	4.9	73
COLUMBUS U	724			85	64	74.3	- 0.4	97	20	55	10	5	0			1.11	-1.69	0.57	9	4	0.0	0										
DAYTON	997	984.[illegible]	1016.3	85	60	72.5	- 1.2	98	20	47	15	6	0	59	66	2.14	-0.74	1.07	5	5	0.0	0	7.4	NNW	26	S	19	12	15	4	4.6	76
MANSFIELD	1296			81	59	69.7	- 0.5	92	20	47	15	1	0			3.39	0.16	1.67	8	5	0.0	0						12	11	8	4.6	
SANDUSKY U	[illegible]	[illegible]		82	62	72.0	- 1.5	93	4	51	18	3	0			2.92	-0.35	1.18	9	9	0.0	0	6.8		58	NW	[illegible]	18	8	5	3.5	79
TOLEDO	676	[illegible]	1015.9	84	57	70.6	- 0.3	95	24	46	18	7	0	59	72	1.38	-1.95	0.65	6	5	0.0	0	6.7	SW	25	N	[illegible]	13	10	8	4.6	73
YOUNGSTOWN	1178	974.5	1016.8	82	56	69.2	- 0.8	90	20	46	18+	1	0	55	65	1.31	-2.19	0.85	7	5	0.0	0	8.7	SSE	25*	N	[illegible]	11	12	8	4.9	
OKLAHOMA																																
OKLAHOMA CITY	[illegible]	[illegible]	[illegible]	96	69	82.5	1.2	106	11+	55	26	24	0	62	54	2.26	-0.26	1.71	3	3	0.0	0	11.8	SSE	34	SE	31	24	3	4	[illegible]	89
TULSA	[illegible]	[illegible]	[illegible]	94	69	81.4	- 0.7	102	19	58	26	24	0	65	61	3.10	0.06	1.86	4	4	0.0	0	9.3	SSE	26	E	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
OREGON																																
ASTORIA	8	[illegible]	[illegible]	68	53	[illegible]	0.0	78	29	46	29+	0	0	55	85	2.49	1.00	.87	14	0	0.0	0	8.4	WSW	24*	NW	14	6	[illegible]	16	6.6	
BURNS U	[illegible]	874.4		81	47	63.8	- 3.4	93	15	35	27	5	0	37	41	0.09	-0.20	0.04	3	0	0.0	0						18	7	6	3.2	
EUGENE	[illegible]	[illegible]		79	50	64.7	- 1.2	91	24	42	27	2	0			1.18	0.78	0.59	5	0	0.0	0	7.5		21*	N	22	13	8	10	4.9	
MEACHAM	[illegible]			71	47	58.6	- 3.1	85	15	37	27	0	0			0.59	0.06	0.25	6	0	0.0	0						15	7	9	4.2	
MEDFORD	[illegible]	[illegible]	1016.3	86	52	68.8	- 1.9	98	24	39	27	10	0	50	58	[illegible]	0.82	0.55	4	0	0.0	0	5.5	WNW	21*	WNW	[illegible]	[illegible]	6	4	2.7	
PENDLETON	[illegible]	[illegible]	[illegible]	[illegible]	56	69.8	- 1.6	98	15	47	29	7	0	42	41	[illegible]	[illegible]	0.24	5	1	0.0	0	9.2	W	30*	WNW	[illegible]	15	8	8	4.0	
PORTLAND	[illegible]	[illegible]	1017.3	[illegible]	[illegible]	[illegible]	- 0.6	87	30+	46	26	0	0	53	66	1.49	[illegible]	0.69	[illegible]	0	0.0	0	7.5	NW	24		7	11	5	15	5.7	53

See footnotes at end of table

CLIMATOLOGICAL DATA

ENGLISH UNITS

State and Station	Elevation (ground)	Pressure		Temperature											Average relative humidity	Precipitation							Wind					No. of days (sunrise to sunset)			Sky cover, tenths (sunrise to sunset)	Possible sunshine
												No. of days							No. of days		Snow, Sleet				Fastest mile							
		Station Ø	Sea level	Average maximum	Average minimum	Average	Departure from normal	Highest	Date	Lowest	Date	Max. 90 F. or above	Min. 32 F. or below	Average dew point		Total	Departure from normal	Greatest in 24 hours	.01 inch or more	With thunderstorms	Total	Maximum depth on ground	Average speed	Prevailing direction	Speed	Direction	Date	Clear, 0-3	Partly cloudy, 4-7	Cloudy, 8-10		
	Ft	Mb.	Mb.	F.	F.	F.	F.	F.		F.				F.	%	In.	In.	In.			In.	In.	M.p.h.		M.p.h.							%
OREGON																																
PORTLAND U	30			76	58	66.9	- 1.2	89	15	51	27	0	0			1.55	0.86	0.65	7		0.0	0										
ROSEBURG	505	998.6		83	52	67.2	- 0.4	95	24	43	27	6	0			0.53	0.22	0.35	5	2	0.0	0	5.3	N$	20	NE	25+	15	7	9	4.4	
SALEM	195	1010.5	1017.7	80	50	64.8	- 1.8	91	31+	39	27	4	0	52	68	0.70	0.25	0.32	8	0	0.0	0	6.7	S	18*	WNW	29+	13	5	13	5.2	
SEXTON SUMMIT R	3836	886.2		71	50	60.8	- 1.9	86	24	42	22+	0	0			2.21	1.96	1.32	6	0	0.0	0	9.6	N				20	4	7	3.0	
PACIFIC AREA																																
CANTON ISLAND	8	1010.5	1010.7	89	78	83.5	0.0	91	27+	75	9	7	0	72	71	0.46	-2.04	0.15	10	0	0.0	0	14.0	ENE	24*	E	31	16	12	3	4.1	
ENIWETOK	13	1010.0		88	78	82.6	- 0.4	90	14	74	26+	1	0			6.43	-0.38	0.98	26		0.0	0										
TAGUAC GUAM R	361			85	73	78.9	- 0.4	88	27+	69	22+	0	0			14.12	1.28	2.62	24		0.0	0	5.4	E$	21	E	5					50
KOROR R	94	1007.4	1010.2	87	75	81.2	0.2	91	31	72	2	1	0	75	86	19.45	3.69	8.18	26	1	0.0	0	5.6	SW	22	W	2	0	1	30	9.6	62
KWAJALEIN	8	1010.3	1010.4	87	77	81.7	- 0.1	89	31	73	31	0	0	75	79	7.26	-2.25	1.39	26	2	0.0	0	10.9	E	35*	E	31	1	11	19	7.7	
PONAPE R	123	1005.4	1010.0	88	73	80.3	0.9	90	27+	70	13	5	0	75	88	18.54	2.22	4.50	28	7	0.0	0	2.7	ESE	20	E	31+	0	6	25	8.9	49
TRUK MOEN ISLAND	5	1009.6	1009.7	86	75	80.4	0.0	89	22+	71	19	0	0	75	85	16.51	3.70	2.49	24	2	0.0	0	3.9	NE	25	SW	25	1	8	22	8.4	20
WAKE ISLAND	11	1013.3	1013.4	87	76	81.9	- 0.5	90	18+	70	25	2	0	75	78	8.54	1.46	1.64	22	6	0.0	0	11.5	ENE	29*	E	25	1	11	19	7.9	
YAP R	55	1007.8	1009.0	86	75	80.3	- 1.0	90	24+	73	30+	2	0	75	87	17.32	2.62	4.46	26	3	0.0	0	6.2	SW	55	W	2	0	0	31	10.0	85
PENNSYLVANIA																																
ALLENTOWN	376	1003.1	1017.3	81	60	70.5	- 1.5	90	31+	52	18	3	0	61	75	6.50	2.03	1.59	10	9	0.0	0	8.5	NE	52*	W	20	12	8	11	5.2	
ERIE	732	990.3	1016.4	78	60	69.0	- 0.8	91	31	49	18	1	0	58	70	4.56	1.58	1.93	10	10	0.0	0	11.1	S	32*	SSW	6	13	13	5	4.3	
HARRISBURG	335	1002.8	1016.6	84	62	73.0	- 0.6	100	20	53	18	5	0	63	76	4.18	0.53	2.19	12	10	0.0	0	6.7	ESE	35	NW	20	9	9	13	5.6	68
PHILADELPHIA	5	1012.2	1016.7	82	62	72.0	- 1.6	91	20	53	12	3	0	62	72	6.58	1.95	2.21	10	7	0.0	0	6.8	S	25	W	9	9	12	10	5.2	63
PHILADELPHIA U	35			83	66	74.4	- 0.8	95	20	56	11	3	0																			
PITTSBURGH	1168	986.9	1017.4	84	58	70.8	0.0	95	20	45	18	5	0	57	65	2.57	-0.74	1.47	7	7	0.0	0	6.8	SE	23*	NNW	21	9	11	11	5.3	72
PITTSBURGH U	749			85	63	73.9	- 0.1	96	20	52	18	6	0			3.16	-0.34	1.55	9		0.0	0										56
READING U	266	1004.6	1016.2	83	64	73.5	- 1.3	95	20	55	12	5	0			3.53	-0.52	1.84	9	5	0.0	0	8.6	S$	32	N	20	10	13	8	5.3	69
SCRANTON	940	983.3	1017.2	81	60	70.4	1.4	91	20	50	18	2	0	58	70	4.05	0.47	1.57	12	6	0.0	0	7.4	SSW	20	SE	7	8	12	11	5.7	53
WILLIAMSPORT	527	997.9	1016.9	82	59	70.3	- 1.3	95	20	48	19	4	0	58	70	4.55	0.93	1.69	8	7	0.0	0	7.8	W	33*	NNE	20	7	16	8	5.8	
RHODE ISLAND																																
BLOCK ISLAND	110	1012.3	1016.7	74	63	68.5	- 1.1	88	8	51	24	0	0			6.74	2.88	3.07	9	4	0.0	0						10	8	13	6.2	
PROVIDENCE	55	1010.6	1016.7	77	61	69.0	- 1.5	87	8	49	24	0	0	61	78	2.73	-1.23	1.48	9	3	0.0	0	10.2	SSW	33*	NNW	29	8	11	12	5.9	49
SOUTH CAROLINA																																
CHARLESTON	41	1013.8	1015.9	88	70	79.0	- 0.7	93	6	62	13	8	0	70	79	11.54	4.93	4.60	10	9	0.0	0	6.7	NNE	51Y	N	3	6	11	14	6.4	78
COLUMBIA	217	1003.3	1015.9	92	69	80.6	0.1	98	7	63	30+	22	0	68	73	3.10	-2.64	1.35	11	11	0.0	0	6.3	NE	40*	NNW	7	11	11	9	5.3	62
FLORENCE	146	1010.3	1016.0	90	68	79.3	- 0.6	95	7+	62	13	21	0	69	76	2.22	-2.35	0.90	9	7	0.0	0	6.5	NE	25*	WNW	16	9	12	10	5.7	
GREENVILLE	1009	979.9	1016.4	89	68	78.6	- 0.8	93	30+	65	31+	15	0	67	73	3.88	-0.82	1.89	6	6	0.0	0	5.8	ENE	26	NW	7	10	15	6	4.9	66
SPARTANBURG	801	987.1		88	67	77.4	- 0.7	93	20+	62	25	13	0			3.27	-1.05	1.06	8	10	0.0	0	6.5		35*	E	14	9	18	4	4.8	
SOUTH DAKOTA																																
HURON	1282	966.8	1013.2	83	58	70.6	- 2.7	94	27	46	28	4	0	61	76	2.07	0.00	1.04	9	11	0.0	0	10.0	SSE	40	SW	4	19	8	4	3.3	80
RAPID CITY	3165	901.5	1013.4	86	56	71.2	- 0.8	99	21	42	28	14	0	49	51	1.03	-0.19	0.71	3	6	0.0	0	9.2	NNW	45	N	27	21	6	4	3.3	77
SIOUX FALLS	1420	963.1	1013.9	83	59	71.3	- 0.5	94	27+	48	25	5	0	60	69	2.77	-0.82	1.78	9	10	0.0	0	9.8	SSE	44*	E	9	15	12	4	3.8	
TENNESSEE																																
BRISTOL	1507	962.2	1016.9	86	63	74.4	0.1	93	20	51	11	5	0	61	69	2.22	-1.58	0.95	7	7	0.0	0	3.8	NE	46*	NNW	21	11	14	6	4.8	
CHATTANOOGA	670	988.9	1016.2	92	68	79.8	1.5	98	20	61	30	25	0	67	69	1.17	-2.59	0.69	4	7	0.0	0	5.8	S	38	W	7	13	17	1	4.2	76
KNOXVILLE	950	981.7	1016.8	90	67	78.2	0.3	95	30	58	11	13	0	64	65	2.08	-1.38	0.76	6	8	0.0	0	6.8	NE	56	S	13	12	14	5	4.5	70
MEMPHIS	263	1001.0	1015.4	91	71	80.8	- 0.2	99	19	58	16	20	0	68	67	4.18	1.21	2.56	7	6	0.0	0	8.8	NE	28	N	4	17	9	5	3.6	83
MEMPHIS U	271			89	72	80.5	- 0.6	95	20+	64	15	19	0			5.33	2.70	2.92	8		0.0	0										
NASHVILLE	577	995.7	1015.3	92	67	79.7	0.5	101	19	60	11	25	0	65	66	2.45	-0.41	1.17	6	7	0.0	0	6.5	S	29	NW	4	11	14	6	4.5	71
OAK RIDGE	905	984.3		87	65	76.0	- 0.6	95	20	60	30+	9	0			2.87	-1.75	1.26	8	7	0.0	0	3.8		35Y		17	16	11	4	3.6	
TEXAS																																
ABILENE	1759	953.4	1013.1	98	71	84.3	1.3	104	6	59	26	29	0	60	47	1.48	0.01	1.74	3	3	0.0	0	8.9	SSE	30	SW	31	23	6	2	2.3	89
AMARILLO	3607	890.1	1012.8	92	65	78.3	0.3	99	10+	55	25	23	0	57	53	3.29	0.71	1.59	5	6	0.0	0	11.0	SSW	40	SE	15	24	5	2	2.1	89
AUSTIN	597	992.1	1013.7	99	75	86.8	2.1	105	12+	70	25+	30	0	65	53	4.58	2.64	4.55	4	3	0.0	0	8.1	S	29	N	24	19	11	1	3.4	84
BROWNSVILLE	16	1011.6	1013.9	95	76	85.8	1.7	102	14	73	16+	31	0	73	71	0.13	-2.64	0.07	5	3	0.0	0	11.1	SE	27	SE	30	17	14		3.3	75
CORPUS CHRISTI	43	1013.1	1014.2	96	77	86.4	2.2	103	14+	72	17	31	0	73	68	0.90	-1.87	0.71	3	3	0.0	0	11.6	SSE	30	SE	4	15	12	4	4.5	76
DALLAS	481	996.1	1014.2	96	75	85.6	0.6	103	11+	64	26	28	0	66	55	3.38	1.45	1.80	3	4	0.0	0	10.1	SE	40	N	24	20	8	3	2.8	86

See footnotes at end of table

CLIMATOLOGICAL DATA

ENGLISH UNITS

State and Station	Elevation (ground)	Pressure		Temperature												Precipitation							Wind					No of days (sunrise to sunset)				
												No of days							No of days		Snow, Sleet				Fastest mile							
		Station ○	Sea level	Average maximum	Average minimum	Average	Departure from normal	Highest	Date	Lowest	Date	Max. 90 F. or above	Min. 32 F. or below	Average dew point	Average relative humidity	Total	Departure from normal	Greatest in 24 hours	.01 inch or more	With thunderstorms	Total	Maximum depth on ground	Average speed	Prevailing direction	Speed	Direction	Date	Clear, 0-3	Partly cloudy, 4-7	Cloudy, 8-10	Sky cover, tenths (sunrise to sunset)	Possible sunshine
TEXAS	Ft.	Mb.	Mb.	F.	F.	F.	F.	F.		F.				F.	%	In.	In.	In.			In.	In.	M.p.h.		M p h.							%
DEL RIO U	957			101	77	88.8	3.7	108	13	70	27	31	0			0.05	-1.39	0.03	2	2	0.0	0										
EL PASO	3918	886.7	1011.0	98	70	84.0	4.1	102	29+	62	26	30	0	45	27	T	-1.19	T	0	2	0.0	0	6.6	S	61	N	15	24	7		1.8	92
FORT WORTH	544	993.7	1014.0	97	74	85.6	0.2	104	10	64	26	27	0	67	56	3.22	1.54	1.99	4	3	0.0	0	8.8	S	27*	NW	24	20	8	3	3.0	
GALVESTON U	7			89	78	84.1	0.8	97	10	73	28+	6	0			2.20	-2.19	1.31			0.0	0	10.7		28	E	28+					86
GALVESTON	5	1012.7	1015.1	90	79	84.7	1.1	97	10+	74	28	19	0	72	68	2.53	-1.99	1.28	4	9	0.0	0	9.4	S				17	10	4	3.5	
HOUSTON U	41			97	78	87.5	3.4	106	9	73	16	30	0			2.43	-1.12	0.96	9		0.0	0										
HOUSTON	50	1011.6	1014.2	97	75	85.9	2.2	106	13	68	16	30	0	74	76	2.77	-1.50	1.84	7	7	0.0	0	8.5	SSE				15	12	4	4.2	84
LAREDO	500	997.4	1012.7	102	77	89.4	1.9	108	10	73	28+	30	0	66	52	1.00	-0.70	0.38	4	4	0.0	0	12.1	SE	35*	E	15	20	7	4	3.2	
LUBBOCK	3243	904.7	1013.9	93	64	78.2	- 0.6	98	10+	53	26	23	0	58	53	1.31	-0.37	0.90	6	6	0.0	0	11.1	SE	35*	N	13	26	1	4	1.8	
MIDLAND	2854	915.5	1012.0	97	69	83.0	0.8	103	7+	62	27+	29	0	55	42	2.66	1.18	0.96	5	6	0.0	0	9.2	SSE	31*	NNE	31	24	5	2	2.3	
PORT ARTHUR	16	1013.7	1014.4	97	74	85.6	3.8	107	10	71	25+	30	0	74	76	5.89	0.40	1.92	8	11	0.0	0	7.6	SW	56	NE	14	14	14	3	4.4	80
SAN ANGELO	1903	946.9	1012.3	101	72	86.9	1.8	107	10+	58	27	31	0	58	41	0.59	-0.68	0.40	4	5	0.0	0	7.8	SSE	21*	NNW	31+	26	3	2	1.8	
SAN ANTONIO	792	989.1	1013.5	99	76	87.5	3.7	106	13	68	16	30	0	66	53	1.57	-0.79	1.57	1	3	0.0	0	9.3	SSE	29	N	25	20	11		2.9	85
VICTORIA	104	1009.3		98	75	86.5	3.1	107	13	71	16	31	0	71	60	1.22	-1.91	0.47	8	9	0.0	0	9.2		46*			14	13	4	4.1	
WACO	500	993.0	1013.8	100	76	88.0	2.5	108	10	69	27+	31	0	65	49	0.72	-0.96	0.69	2	1	0.0	0	12.4	S	44	NW	24	21	9	1	2.5	
WICHITA FALLS	994	977.0	1012.9	100	72	85.8	0.6	111	11	54	26	30	0	60	47	0.96	-0.83	1.04	2	3	0.0	0	10.0	SSE	23*	NNE	24	22	5	4	2.6	
UTAH																																
MILFORD	5028	846.3		92	51	71.5	- 0.7	101	14	36	31	22	0			0.13	-0.60	0.12	2	3	0.0	0						23	6	2	2.0	
SALT LAKE CITY	4220	868.6	1013.6	90	56	73.1	- 1.4	101	15	38	31	20	0	39	32	0.26	-0.61	0.09	5	6	0.0	0	9.6	S	34	S	21	19	10	2	2.9	89
WENDOVER	4237	871.0		89	63	76.1	- 1.1	98	16+	51	31+	19	0			0.04	-0.32	0.04	2	5	0.0	0						22	8	1	2.0	
VERMONT																																
BURLINGTON	331	1001.2	1015.8	76	55	65.5	- 2.7	87	31	43	19	0	0	57	75	3.46	0.09	1.62	13	6	0.0	0	6.7	S	25	NW	21	7	11	13	6.3	57
VIRGINIA																																
LYNCHBURG	947	992.3		83	63	73.4	- 1.4	94	21	55	11	3	0			2.41	-2.00	0.90	8	6	0.0	0	6.4		28	N	21	7	15	9	5.4	66
NORFOLK	26	1015.5	1016.9	83	69	76.0	- 1.5	95	21	61	19+	3	0	68	78	4.19	-1.88	1.85	3	4	0.0	0	8.6	ENE	27	SE	27+	7	16	8	5.3	70
RICHMOND	162	1010.6	1016.9	86	63	74.6	- 1.9	96	21+	55	24+	8	0	66	78	2.37	-3.17	1.00	9	4	0.0	0	6.5	N	30	NW	21	6	15	10	6.0	70
ROANOKE	1174	975.8	1017.6	86	63	74.4	- 1.0	96	21+	52	11	7	0	62	70	3.55	-1.08	1.08	10	7	0.0	0	6.6	SE	25*	NE	21	9	16	6	5.2	
WASHINGTON																																
OLYMPIA	190	1010.8	1017.9	74	50	62.0	- 1.4	86	15	40	30+	0	0	53	75	3.17	2.28	1.22	14	0	0.0	0	6.5	SW	21*	SW	27	7	11	13	6.5	
SEATTLE TACOMA	400	1003.4	1017.5	71	53	62.0	- 1.1	84	15	47	27	0	0	53	76	1.96	1.01	0.66	12	0	0.0	0	8.7	SW	23*	SW	27+	8	8	15	6.2	
SEATTLE	14		1017.3											52	67								5.1	SSE								
SEATTLE U	14			72	57	64.9	- 0.1	89	15	52	27	0	0			1.41	0.67	0.42	12		0.0	0			25	S	20+					51
SPOKANE	2357	946.8	1014.8	78	52	65.4	- 2.1	94	15	40	27	3	0	43	48	0.63	0.22	0.33	4	3	0.0	0	8.6	SW	28	SW	4	12	7	12	5.0	73
STAMPEDE PASS R	3958	882.2		61	46	53.1	- 2.5	76	15	38	26	0	0			3.71	1.67	1.20	15	1	0.0	0						9	4	18	6.7	
TATOOSH ISLAND	101	1014.9	1017.8	61	52	56.1	0.1	68	14	47	30+	0	0	54	93	4.78	2.8[illegible]	0.89	16	0	0.0	0	12.3	S	33	SW	16	3	6	22	8.1	32
WALLA WALLA U	949	979.0		82	60	70.9	- 2.9	95	1	50	29	6	0			0.41	0.11	0.32	4	2	0.0	0	4.6	W$	26	NW	3	15	7	9	4.5	76
YAKIMA	1061	976.3	1014.7	82	[illegible]	66.0	- 2.6	95	15+	44	27+	5	0	47	53	0.33	0.13	0.15	4	1	0.0	0	7.0	W	24*	WNW	12	14	9	8	4.3	
WEST INDIES																																
SAN JUAN P.R. U	15	1012.9	1015.9	88	74	81.3	0.4	91	31+	72	23+	8	0	73	80	6.98	-0.15	1.45	21	4	0.0	0	7.3	ENE	25	E	20+	1	22	8	6.4	62
SWAN ISLAND	28	1011.6		88	78	83.4	0.3	90	7+	73	18	2	0			1.86	-1.91	0.47	9	5	0.0	0						4	16	11	6.2	
WEST VIRGINIA																																
CHARLESTON	939	981.5	1016.6	86	63	74.4	1.1	95	20	53	11	8	0	64	75	1.94	-2.01	1.11	7	5	0.0	0	4.5	S	29*	W	6	7	16	8	5.3	
ELKINS	1970	949.4	1018.1	80	54	67.2		89	20	44	19	1	0	58	78	2.23		0.84	8	8	0.0	0	4.8	WNW	26*	W	8	6	13	12	6.1	
HUNTINGTON U	827	986.7	1016.7	84	60	72.3	- 3.8	96	20	50	19	4	0	64	76	0.68	-2.61	0.54	4	5	0.0	0	4.7	SSW	23*	WNW	5	9	15	7	5.0	
PARKERSBURG U	615			86	62	74.2	- 0.2	98	20	[illegible]	18	5	0			1.72	-2.06	1.42	6	6	0.0	0	5.5		25	SW	6					76
WISCONSIN																																
GREEN BAY	682	992.5	1015.1	81	57	69.0	1.1	90	28+	45	17	2	0	59	74	2.86	0.11	0.62	11	7	0.0	0	5.7	SW	25	NW	7	11	12	8	6.1	67
LA CROSSE	652	990.5		81	60	70.5	- 1.1	92	19	49	14	3	0	59	72	7.16	4.53	3.92	10	6	0.0	0	9.0	S	53*	WNW	29	12	11	8	5.5	
MADISON	858	980.3	1015.2	83	57	69.8	0.3	93	23	43	18	1	0	59	71	2.04	-1.33	0.97	6	6	0.0	0	8.1	S	32	W	29	8	14	9	5.3	69
MILWAUKEE	672	990.9	1015.8	80	58	68.9	1.1	93	19	44	18	2	0	59	72	1.98	-1.08	1.38	5	2	0.0	0	8.8	SSW	37	SW	20	14	8	9	4.8	73
WYOMING																																
CASPER	5319	834.5	1013.7	84	52	67.7	- 2.4	93	14	36	28	9	0	36	38	0.25	-0.47	0.09	7	8	0.0	0	10.8	WSW	48*	W	27	19	9	3	3.1	

See footnotes at end of table

CLIMATOLOGICAL DATA

ENGLISH UNITS

State and Station	Elevation (ground)	Pressure		Temperature											Average relative humidity	Precipitation							Wind					No. of days (sunrise to sunset)			Sky cover, tenths (sunrise to sunset)	Possible sunshine
												No. of days							No. of days		Snow, Sleet				Fastest mile							
		Station Ø	Sea level	Average maximum	Average minimum	Average	Departure from normal	Highest	Date	Lowest	Date	Max 90 F. or above	Min. 32 F. or below	Average dew point		Total	Departure from normal	Greatest in 24 hours	01 inch or more	With thunderstorms	Total	Maximum depth on ground	Average speed	Prevailing direction	Speed	Direction	Date	Clear, 0-3	Partly cloudy, 4 7	Cloudy, 8-10		
WYOMING	Ft.	Mb.	Mb.	F.	F	F.	F.	F.		F.				F.	%	In.	In.	In			In	In	M.p.h.		M p.h.							%
CHEYENNE	6126	816.8	1014.8	83	51	67.3	0.1	94	14	40	31	5	0	41	45	0.40	-1.04	0.18	8	12	0.0	0	11.2	WNW	40	W	6	13	9	9	4.4	70
LANDER	5563	837.1	1013.7	84	52	67.7	- 1.1	94	14	35	31	8	0	36	36	0.03	-0.44	0.02	2	0	0.0	0	7.7	W	56	W	7	18	11	2	3.3	90
SHERIDAN	3942	885.2	1010.3	82	50	66.3	- 3.2	99	4	37	28	10	0	44	49	1.10	0.20	0.47	6	7	0.0	0	5.8	WNW	42	W	17	16	8	7	4.1	76

Data from airport unless otherwise specified. U indicates Urban, R indicates Rural, sites.

* Data entered in column "Fastest Mile" is the fastest mile observed. This station is not equipped with automatic wind recording instrument.

A Maximum hourly average.

+ And also on an earlier date or dates.

Ø Station pressures apply to elevations shown in the "Elevations - Station Pressure" table of the annual issue of this publication.

B Number of days maximum 70° F. or above for Alaskan Stations.

$ Wind direction to 8 compass points only.

Y Peak Gust.

CLIMATOLOGICAL DATA

METRIC UNITS

State and Station	Elevation (ground)	Pressure		Temperature											Average relative humidity	Precipitation							Wind					No. of days (sunrise to sunset)			Sky cover, tenths (sunrise to sunset)	Possible sunshine
												No. of days							No of days		Snow, Sleet				Fastest mile (1.6 kilometers)							
		Station	Sea level	Average maximum	Average minimum	Average	Departure from normal	Highest	Date	Lowest	Date	Max 32.2 °C or above	Min. 0 C or lower	Average dew point		Total	Departure from normal	Greatest in 24 hours	25 mm or more	With thunderstorms	Total	Maximum depth on ground	Average speed	Prevailing direction	Speed	Direction	Date	Clear, 0-3	Partly cloudy, 4-7	Cloudy, 8-10		
ALABAMA	M.	Mb.	Mb.	C.	C.	C	C	C.		C.				C	%	Mm.	Mm.	Mm			Mm	Mm	M.p.s		M.p.s							%
BIRMINGHAM	186	991.4	1016.3	34.4	21.7	27.8	1.4	38.3	7	16.7	11	27	0	20.0	66	89	-35	27	12	11	0	0	3.0	NE	19.2	N	5	8	14	9	5.3	73
HUNTSVILLE	184	992.9	1015.9	34.4	20.6	27.4	0.6	37.2	20+	16.1	11	29	0	18.3	62	18	-65	13	5	6	0	0	3.7	SE	15.6*	NW	7	12	12	7	4.7	
MOBILE	64	1013.0	1015.2	32.8	22.8	27.8	0.6	36.7	8	20.0	11	22	0	22.2	77	76	-87	24	13	12	0	0	2.3	ENE	10.3*	E	5	5	14	12	5.8	
MONTGOMERY	59	1007.7	1015.8	34.4	22.8	28.6	1.0	37.2	7	20.0	15+	30	0	21.1	68	87	-18	61	9	7	0	0	3.0	ENE	14.3	NE	8	10	16	5	5.0	69
ALASKA												B																				
ANCHORAGE	27	1007.3	1012.2	17.8	10.0	13.8	0.7	21.7	1	2.8	31	4	0	10.0	77	49	-17	19	12	0	0	0	2.4	SSE	10.3*	S	30	6	0	25	7.9	41
ANNETTE	34	1011.3	1015.3	18.3	11.7	15.1	0.7	23.3	7+	8.3	17	8	0	11.7	83	208	18	39	18	0	0	0	2.8	SSE	9.8*	SE	9	2	4	25	8.5	
BARROW	7	1008.2	1009.0	8.3	3.3	5.8	2.6	17.8	14	-1.1	30	0	4	4.4	92	37	14	7	20	0	5	T	4.7	E	11.6*	WSW	29	0	0	31	9.7	
BARTER ISLAND	12	1007.5	1009.5	7.8	2.2	5.2	0.7	17.8	11	-0.6	24+	0	5	3.3	90	26	-1	12	7	0	43	T	4.2	ENE	10.7*	WSW	31	1	7	23	8.5	
BETHEL	38	1009.1	1010.6	15.0	8.3	11.5	0.2	22.2	11+	3.9	31	3	0	8.9	85	90	-17	26	17	1	0	0	5.5	SSW	15.6*	SSW	26	0	4	27	9.2	
COLD BAY	29	1010.0	1014.1	13.3	8.9	11.2	0.4	20.6	26	5.0	24+	0	0	9.4	89	50	-58	21	19	0	0	0	7.8	SSE	19.7*	SE	1	0	2	29	9.4	
CORDOVA	12	1011.4	1013.2	16.1	8.3	12.2	0.9	18.9	19+	2.2	31	0	0	10.0	88	123	-82	42	19	0	0	0	2.1	E	6.7*	WNW	14	0	5	26	8.9	
FAIRBANKS	133	993.5	1010.6	19.4	9.4	14.4	2.1	30.6	1	-1.1	31	13	1	10.0	78	102	46	38	11	1	0	0	2.7	SW	11.2*	SW	30+	2	7	22	7.7	
JUNEAU	5	1012.4	1013.5	16.7	8.9	12.7	0.4	23.3	2	4.4	28	2	0	9.4	83	132	5	35	20	0	0	0	3.1	NNW	11.6*	ESE	23	1	6	24	8.7	23
KING SALMON	13	1010.7	1012.9	16.7	8.3	12.4	-0.2	25.6	28	2.8	31	3	0	8.9	82	65	-23	11	16	0	0	0	4.6	SW	12.5*	SW	23	0	5	26	8.8	
KOTZEBUE	3	1008.2	1008.7	14.4	9.4	12.0	1.7	23.9	12	2.2	31	3	0	9.4	84	30	-25	9	13	1	8	0	4.7	WNW	20.6*	W	29	0	5	26	9.0	
MC GRATH	102	999.2	1011.8	17.2	7.8	12.6	0.3	27.8	1	-1.7	31	6	1	8.3	79	47	-49	13	20	2	0	0	2.5	SW	10.3*	S	26	1	6	24	8.4	
NOME	4	1008.3	1009.0	13.3	7.8	10.5	1.1	19.4	12	0.0	30	0	1	8.3	85	19	-78	5	14	0	T	0	5.2	N	14.8*	WSW	29	2	5	24	8.4	32
ST. PAUL ISLAND	7	1008.2	1009.3	10.6	6.7	8.6	-0.1	12.2	26	5.0	23+	0	0	7.8	96	124	41	33	21	0	0	0	7.1	S	17.9*	ESE	24	0	0	31	10.0	
SHEMYA	37	1003.7	1007.4	10.6	7.8	9.2	-0.7	12.2	20	6.7	29	0	0	8.3	97	184	130	42	24	0	0	0	7.4	WSW	24.6*	SSW	5	0	0	31	10.0	
YAKUTAT	9	1012.0	1013.2	16.7	8.9	12.6	0.5	20.6	15+	3.9	31	0	0	10.6	88	149	-129	80	16	0	0	0	2.0	E	7.2*	ESE	22+	0	6	25	8.8	
ARIZONA																																
FLAGSTAFF	2131	795.5	1017.1	27.8	8.9	18.3	0.3	31.7	12	2.8	25	0	0	3.3	42	7	-66	3	4	11	0	0	2.8	SW	9.4*	SSW	5+	14	10	7	4.2	
PHOENIX	338	971.2	1009.2	41.7	24.4	33.2	1.5	45.0	13+	16.7	31	31	0	11.1	28	6	-22	6	2	5	0	0	2.5	W	14.3*	NE	1	18	13	0	2.5	96
PRESCOTT	1528	849.6	1013.4	33.3	16.1	24.6	1.6	38.3	14	8.9	31	20	0	5.0	33	3	-65	3	2	8	0	0	3.4	SSW	14.3	E	14	17	8	6	3.7	81
TUCSON	788	924.8	1010.3	38.3	22.8	30.6	1.9	41.7	11	18.3	31	31	0	10.6	33	12	-61	5	4	11	0	0	4.1	S	13.4	W	15	14	12	5	4.1	88
WINSLOW	1487	854.0	1014.2	35.0	15.6	25.3	-0.4	39.4	15	7.8	25	28	0	5.6	34	19	-18	8	4	4	0	0	4.0	SW	14.8*	W	12	15	12	4	4.1	
YUMA	61	1003.7	1008.8	43.9	27.2	35.5	1.3	47.2	11	20.0	31	31	0	13.9	32	T	-13	T	0	0	0	0	3.5	WSW	16.1	SE	15	24	5	2	1.9	93
ARKANSAS																																
FORT SMITH	137	998.0	1014.6	35.6	20.0	27.8	-0.2	41.1	11+	12.8	26	28	0	19.4	67	65	-9	55	4	6	0	0	3.0	ENE	17.0	NW	24	18	9	4	3.5	78
LITTLE ROCK	78	1002.4	1015.1	35.6	20.6	28.2	0.8	41.1	7	15.6	18	28	0	19.4	66	61	-11	39	5	4	0	0	3.0	SE	15.2	W	24	17	8	6	3.6	75
TEXARKANA	110		1014.9	35.0	22.2	28.4	0.3	38.9	12	17.8	27	28	0	21.7	72	54	-24	14	8	9	0	0	3.4	SW								
CALIFORNIA																																
BAKERSFIELD	151	995.9	1013.2	35.0	18.9	26.9	-0.7	38.9	16	15.6	29+	24	0	10.6	38	0	0	0	0	0	0	0	3.2	NW	8.0*	NNW	22	30	1	0	.3	
BISHOP	1252	874.4		35.6	11.1	23.3	0.1	39.4	13	6.1	29	30	0			T	-3	T	0	1	0	0						28	3	0	.7	
BLUE CANYON	1609	841.9		24.4	14.4	19.4	-0.4	30.0	25+	8.9	9	0	0			8	6	8	3	2	0	0	3.5	SSW	11.6	SSW	7	25	5	1	1.6	
BURBANK	213	987.5	1013.0	31.7	16.7	24.1	0.7	36.1	14+	13.9	22	16	0	13.9	60	T	-1	T	0	0	0	0	3.0	ESE	7.6*	ESE	15	28	3	0	1.5	
EUREKA U	13	1015.6		16.7	11.7	14.3	0.6	20.6	6	8.9	27	0	0			49	46	24	5	0	0	0	2.5	NW$	8.0	SW	6	5	9	17	6.9	44
FRESNO	99	1000.3	1012.2	35.6	16.7	26.0	0.2	40.0	15+	12.8	30	25	0	10.6	41	0		0	0	0	0	0	2.9	WNW	11.2	NW	27	30	1	0	.4	98
LONG BEACH	10	1012.2	1013.7	28.3	15.0	21.8	-0.6	32.8	14	13.3	24+	3	0	15.6	76	0	-1	0	0	0	0	0	2.6	WNW	8.0*	W	23+	23	8	0	2.5	
LOS ANGELES	30	1010.2	1014.0	25.0	17.2	20.9	0.8	28.9	8	15.6	13+	0	0	15.6	78	0	-1	0	0	0	0	0	2.9	WSW	9.8*	WSW	9	17	14	0	2.8	
LOS ANGELES U	95			29.4	17.2	23.4	0.6	34.4	16	15.0	22+	6	0	15.0	66	0	-1	0	0	0	0	0	2.2	W$	10.3	W	9	26	5	0	1.7	90
MT SHASTA R	1080	893.7		27.8	9.4	18.6	-0.7	33.9	15+	5.6	27	4	0			21	16	11	3	0	0	0						25	3	3	1.9	
OAKLAND	1	1015.2	1015.4	23.3	13.3	18.4	0.6	35.0	27	11.7	27	1	0	11.7	72	1	1	1	2	0	0	0	4.8	WNW	10.3*	WNW	5	18	9	4	3.4	
POINT ARGUELLO	111	1001.4		18.9	11.1	15.0	0.0	33.3	28	7.2	7	1	0			2	1	1	5	0	0	0	3.1		8.0*	WNW	28+	8	7	16	6.3	
RED BLUFF	104	1000.0	1012.4	34.4	17.8	26.1	-1.1	42.2	15	13.3	6	23	0	7.8	36	4	2	4	1	2	0	0	3.9	SSE	11.2	SE	3	26	3	2	1.6	94
SACRAMENTO	5	1012.5	1013.6	33.9	13.9	23.8	-0.7	40.0	15	11.1	30	22	0	12.2	57	3	3	3	1	2	0	0	3.0	SSW	10.3	SW	17	29	2	0	.7	98
SACRAMENTO U	7			32.2	14.4	23.6	-0.2	38.9	15	12.2	30+	20	0			3	2	3	1		0	0										
SANDBERG R	1377	864.9		29.4	17.2	23.4	0.5	35.6	14+	11.1	5	9	0			0	-2	0	0	0	0	0	5.0	NNW	12.5*	NNW	28	29	2	0	.4	
SAN DIEGO	4	1010.2	1013.2	25.0	17.8	21.4	-0.1	30.0	9	16.1	6+	0	0	16.1	76	T	-2	T	0	0	0	0	3.1	NW	8.5	NW	7	22	9	0	3.0	75
SAN FRANCISCO	2	1015.2	1016.0	22.8	12.2	17.6	0.4	33.3	27	10.6	26+	1	0	11.7	76	1		1	2	0	0	0	5.4	WNW	16.5	WNW	16	20	8	3	2.9	
SAN FRANCISCO U	16			18.9	12.2	15.6	0.3	30.0	27	10.0	2	0	0			2	1	2	2	0	0	0	4.3	W$	11.6	W	29+					69
SANTA MARIA	73	1006.4	1015.3	23.3	11.1	17.1	0.2	39.4	28	8.9	24	1	0	12.2	80	T	-1	T	0	0	0	0	3.0	WNW	13.0*	WNW	30	22	9	0	2.5	
COLORADO																																
ALAMOSA	230	776.8		27.8	5.0	16.6	-0.7	31.1	10+	-1.1	25	0	1			6	-19	2	6	9	0	0						19	11	1	3.0	
COLORADO SPRINGS	1882	815.8	1015.6	30.6	12.2	21.4	1.1	35.6	14+	6.7	25	13	0	3.3	38	4	-51	1	5	12	0	0	4.0	NNE	11.2*	N	30	16	12	3	3.7	
DENVER	1610	840.5	1013.6	32.2	12.8	22.5	0.3	37.8	14+	6.1	31	21	0	4.4	37	12	-21	7	7	4	0	0	4.2	SSW	18.8	SW	8	15	10	6	4.2	77
GRAND JUNCTION	1478	860.5	1012.7	32.8	16.1	24.4	0.2	37.2	15+	10.6	25	21	0	0.0	23	4	-23	2	3	6	0	0	3.0	SE	14.8	NW	27	17	10	4	3.3	85

See footnotes at end of table

CLIMATOLOGICAL DATA
METRIC UNITS

AUGUST 196.

State and Station	Elevation (ground)	Pressure		Temperature											Average relative humidity	Precipitation							Wind					No. of days (sunrise to sunset)			Sky cover, tenths, sunrise to sunset	Possible sunshine
		Station	Sea level	Average maximum	Average minimum	Average	Departure from normal	Highest	Date	Lowest	Date	No. of days		Average dew point		Total	Departure from normal	Greatest in 24 hours	No. of days		Snow, Sleet		Average speed	Prevailing direction	Fastest mile (1.6 kilometers)			Clear, 0-3	Partly cloudy, 4-7	Cloudy, 8-10		
												Max 32.2 °C or above	Min 0 C or lower						25 mm or more	With thunderstorms	Total	Maximum depth on ground			Speed	Direction	Date					
	M	Mb	Mb	C	C	C	C	C		C				C	%	Mm	Mm	Mm			Mm	Mm	Mps		Mps							%
COLORADO																																
PUEBLO	1414	856.4	1013.1	33.3	14.4	23.9	0.2	39.4	9	9.4	25	23	0	7.2	40	13	- 34	10	5	6	0	0	4.4	SE	30.4	N	15	19	10	2	3.2	83
CONNECTICUT																																
BRIDGEPORT	2	982.8	1017.7	25.6	16.1	20.9	-1.4	30.6	8	12.2	19	0	0	16.7	78	112	- 1	50	12	5	0	0	5.0	SSW	13.0*	ENE	9	9	11	11	5.6	
HARTFORD	52	1010.6	1016.7	26.7	14.4	20.7	-0.6	32.2	6	9.4	24+	1	0	16.1	79	159	57	72	9	4	0	0	3.2	S	10.7	N	29+	5	12	14	6.8	65
NEW HAVEN	2	1016.8		25.6	16.1	20.7	-0.8	32.2	8	10.6	19	1	0			103	- 5	43	9	5	0	0	3.1		13.9	SW	21	9	11	11	5.7	65
DELAWARE																																
WILMINGTON	24	1013.6	1016.9	28.3	17.2	22.7	-0.8	34.4	20	12.8	12+	3	0	16.7	73	47	- 94	13	8	9	0	0	3.3	WNW	13.0*	NW	9	10	12	9	5.0	
DIST.OF COLUMBIA																																
WASHINGTON U	22			29.4	19.4	24.6	0.2	36.7	20	14.4	11	5	0			9	-105	8	2													
WASH NATL AP	4	1012.7	1017.1	30.0	19.4	24.9	0.2	37.2	20	15.0	12	6	0	17.2	66	14	-110	7	4	3	0	0	3.4	S	12.1	NNW	9	9	11	11	5.5	72
FLORIDA																																
APALACHICOLA U	4	1013.3		31.7	23.9	27.8	0.3	35.6	6	21.1	8	12	0			109	- 88	63	10	11	0	0	2.7		17.0	NW	7	10	12	9	5.1	71
DAYTONA BEACH	9	1014.5	1016.3	31.1	22.8	27.1	0.1	33.3	4	21.1	30+	8	0	21.7	78	216	54	52	15	20	0	0	3.2	SW	9.8*	SSW	16	0	15	16	7.5	
FORT MYERS	4	1014.8		32.8	24.4	28.8	0.7	35.0	19	23.9	25+	28	0			277	89	82	20	26	0	0	3.7		12.5*	ESE	21	0	19	12	7.0	
JACKSONVILLE	7	1015.1	1016.4	33.3	22.8	28.0	0.1	36.7	6	19.4	13	22	0	22.2	77	256	82	89	14	10	0	0	2.8	SE	15.6	N	1	4	17	10	5.8	54
KEY WEST	2	1014.2	1015.4	32.8	26.1	29.4	0.8	33.9	9+	21.7	13	24	0	22.2	75	204	94	61	20	20	0	0	4.3	ESE	15.6	SE	19+	0	19	12	7.0	63
LAKELAND U	65			32.2	23.3	27.8	0.1	34.4	18	21.1	31+	25	0			152	- 28	49	22	27	0	0	2.3					0	16	15	7.4	51
MIAMI BEACH	3			31.7	26.1	28.9	0.6	33.9	10+	23.3	14	11	0			59	- 70	17	14		0	0	2.8		11.6	SE	21	1	19	11	6.9	49
MIAMI	2	1014.4	1015.6	31.7	24.4	28.3	0.3	33.9	7+	22.8	12+	15	0	23.3	77	204	27	53	19	22	0	0	3.2	SE	17.9*	SW	9	1	13	17	7.4	
ORLANDO	32	1011.5	1016.1	33.3	23.3	28.2	0.6	35.6	7	21.7	24+	25	0	22.8	81	130	- 46	32	15	15	0	0	3.2	SW	10.7*	ESE	24	1	14	16	7.4	
PENSACOLA U	4			32.2	23.9	28.0	0.2	36.1	10+	21.7	11	13	0			70	-123	24	10	10	0	0	3.5	ENE	9.4	SW	4					72
TALLAHASSEE	18	1013.4	1016.1	32.8	21.1	27.0	-0.3	36.7	30	18.9	13	22	0	21.1	77	151	- 25	81	10	14	0	0	3.4	E	25.9*	NNE	8	6	17	8	5.7	
TAMPA	6	1014.4	1015.9	32.2	23.3	27.7	-0.1	35.0	30	21.7	22+	18	0	22.8	80	258	48	52	20	23	0	0	3.8	E	13.4*	SSE	21	0	9	22	7.9	54
WEST PALM BEACH	5	1014.8	1015.9	32.8	23.9	28.3	-0.1	35.6	4	21.1	15	26	0	23.3	78	194	23	38	21	23	0	0	3.4	SE	15.6*	NW	15	2	9	20	7.7	
GEORGIA																																
ATHENS	245	988.2	1016.8	32.2	19.4	25.8	-0.3	35.0	5	16.7	25	17	0	20.0	74	93	1	38	11	7	0	0	2.8	ENE	16.5*	NNW	13	9	15	7	5.3	
ATLANTA	306	975.2	1016.6	30.6	18.9	24.8	-1.0	33.3	29+	16.1	12	5	0	18.3	72	31	- 61	11	6	5	0	0	2.7	ENE	10.3*	W	7	11	14	6	5.1	77
AUGUSTA	44	1009.0	1015.7	32.8	20.6	26.7	-0.1	35.6	7	16.7	12	23	0	21.1	76	87	- 12	24	11	9	0	0	2.4	SE	13.0*	W	6	4	14	13	6.2	
COLUMBUS	117	1002.2		33.3	21.1	27.2	0.1	35.6	30+	18.3	30	26	0			72	- 46	23	9	8	0	0	2.6		17.9*	W	8	10	17	4	4.9	
MACON	109	1002.2	1015.7	33.3	21.1	27.2	-0.2	36.7	6	17.2	30	25	0	20.6	72	126	20	35	12	13	0	0	2.9	NE	15.6	NE	8	10	10	11	5.4	69
ROME	194	993.6		33.3	18.3	25.7	-0.1	35.6	30+	13.9	29	25	0			46	- 49	26	7	8	0	0						11	18	2	4.6	
SAVANNAH	15	1013.8	1016.4	32.2	21.7	26.8	-0.4	35.6	1	18.9	13	17	0	22.2	81	195	27	47	17	15	0	0	3.0	NNE	13.9	S	1	6	14	11	6.0	70
THOMASVILLE U	86			33.9	21.7	27.7	0.0	36.1	30+	18.9	12	25	0			155	14	70	12	15	0	0						12	8	11	5.3	
HAWAII																																
HILO	9	1015.8	1017.7	28.9	20.0	24.2	-0.1	30.0	30	17.8	12	0	0	18.9	75	105	-185	36	23	0	0	0	3.1	WSW	6.7*	ENE	28+	3	14	14	6.6	44
HONOLULU	2	1017.0	1017.4	30.0	23.3	26.7	0.3	30.6	30+	21.7	31+	0	0	18.9	65	8	- 14	3	6	0	0	0	6.5	ENE	14.8	E	15	7	19	5	5.2	89
LIHUE	35	1013.0	1018.4	29.4	22.8	26.2	0.4	30.6	20+	20.6	10+	0	0	20.0	72	46	- 16	8	21	0	0	0	5.8	NE	11.6	NE	1	4	19	8	6.1	72
IDAHO																																
BOISE	865	919.1	1013.7	30.0	13.3	21.5	-0.8	36.1	16+	4.4	29	13	0	5.0	38	3	- 1	2	4	1	0	0	3.4	SE	11.6	S	21	20	7	4	2.9	85
IDAHO FALLS 42NW R	1460			28.9	6.1	17.5	-1.6	35.6	15	- 3.9	31	7	2			3	- 9	2	4													
IDAHO FALLS 46W R	1504	850.0		28.3	7.8	18.1	-1.1	35.6	15	- 0.6	31	6	1			1	- 11	1	2	2	0	0	3.6	SW	17.9A	WSW	21					
LEWISTON	438	963.1		28.9	13.3	21.0	-1.1	38.3	15	6.1	27	9	0			15	5	8	5	3	0	0						15	7	9	4.6	
POCATELLO	1355	864.9	1015.1	28.9	10.6	19.6	-1.6	36.1	15	3.9	31+	9	0	2.8	37	26	12	23	5	5	0	0	4.2	WSW	15.2	SW	28+	19	9	3	3.3	79
ILLINOIS																																
CAIRO U	96	1002.7		31.7	20.0	25.9	-0.7	36.7	20	15.0	15	15	0			134	55	45	9	6	0	0	2.9	S$	16.1	N	7	11	15	5	4.5	74
CHICAGO O HARE	201	991.0	1015.4	28.9	15.6	22.1		34.4	24+	8.9	18	7	0	15.6	69	41		27	8	3	0	0	3.6	SSW	11.2*	WSW	24	9	13	9	5.3	
CHICAGO MIDWAY	186	993.1	1015.6	28.9	18.3	23.7	0.2	35.6	20	11.7	15	8	0	15.6	63	22	- 59	14	5	2	0	0	3.8	SSW	12.5	SW	24	11	14	6	4.9	72
MOLINE	177	1003.8	1015.0	29.4	16.1	22.7	-0.4	35.6	23	8.9	18	8	0	16.7	72	50	- 40	33	4	6	0	0	3.2	S	14.3	NW	24	10	12	9	5.2	71
PEORIA	199	993.9	1016.0	29.4	16.7	23.1	-0.4	35.6	23	10.0	15	10	0	16.1	68	46	- 27	38	5	5	0	0	4.1	S	14.8	W	24	11	14	6	4.5	79
ROCKFORD	222	988.4	1015.4	28.3	16.1	22.1	-0.4	33.9	23	8.9	18	1	0	15.6	70	65	- 40	41	6	2	0	0	4.1	SSE	15.6*	WSW	24	12	12	7	4.4	
SPRINGFIELD	179	992.0	1015.0	29.4	16.7	23.0	-1.0	36.7	20	8.3	15	6	0	17.2	71	28	- 41	14	8	8	0	0	3.8	S	16.5	SW	24	15	11	5	4.3	78
INDIANA																																
EVANSVILLE	116	1000.1	1015.8	32.2	17.2	24.7	-0.2	37.8	20	11.1	16+	16	0	17.8	69	54	- 24	33	7	4	0	0	2.5	NW	13.4	NW	4	11	14	6	4.7	82
FORT WAYNE	241	985.5	1016.5	30.0	15.0	22.6	0.1	38.3	20	6.1	15	8	0	15.0	67	39	- 39	33	4	3	0	0	3.6	S	12.5	W	31	13	12	6	5.0	75

See footnotes at end of table

CLIMATOLOGICAL DATA

METRIC UNITS

State and Station	Elevation (ground)	Pressure		Temperature											Average relative humidity	Precipitation							Wind					No. of days (sunrise to sunset)			Sky cover, tenths (sunrise to sunset)	Possible sunshine
												No. of days							No of days		Snow, Sleet				Fastest mile (1.6 kilometers)							
		Station	Sea level	Average maximum	Average minimum	Average	Departure from normal	Highest	Date	Lowest	Date	Max 32.2 °C or above	Min. 0 C or lower	Average dew point		Total	Departure from normal	Greatest in 24 hours	25 mm or more	With thunderstorms	Total	Maximum depth on ground	Average speed	Prevailing direction	Speed	Direction	Date	Clear, 0-3	Partly cloudy, 4-7	Cloudy, 8-10		
	M.	Mb.	Mb.	C.	C.	C.	C.	C.		C.				C.	%	Mm.	Mm.	Mm.			Mm	Mm.	M.p.s.		M p.s.							%
INDIANA																																
INDIANAPOLIS	242	986.5	1016.2	28.3	16.7	22.4	-0.7	36.1	20	11.1	15	2	0	16.7	74	147	70	62	5	2	0	0	3.0	SSE	12.5*	NW	6	11	13	7	4.9	71
SOUTH BEND	234	987.9	1015.7	28.3	15.6	21.8	-0.4	35.0	24	8.3	15	3	0	15.0	69	89	- 2	45	4	3	0	0	3.6	S	15.6*	SSW	31	15	7	9	4.6	
IOWA																																
BURLINGTON	212	990.4	1015.6	30.0	17.2	23.6	-0.1	35.6	23	11.7	26	11	0	16.7	69	53	- 38	22	7	7	0	0	3.9	S	10.3	W	11	12	11	8	4.8	79
DES MOINES	289	984.3	1015.0	29.4	17.8	23.4	-0.2	35.6	23+	12.2	25+	5	0	17.8	73	41	- 53	17	7	7	0	0	2.9	SSE	18.8	S	30	11	10	10	4.9	68
DUBUQUE	325	989.9		26.7	15.6	21.2	-0.2	32.8	23	11.1	18+	1	0	15.0	64	52	- 43	42	6	5	0	0			11.2*			10	10	11	5.2	
SIOUX CITY	334	973.4	1013.9	28.9	16.7	22.7	-0.7	34.4	27	8.9	25	6	0	17.2	75	67	- 1	26	11	12	0	0	3.7	SSE	21.0	N	9	16	8	7	4.1	70
WATERLOO	265	983.5	1015.1	28.3	15.0	21.5	-0.8	32.8	23	7.8	17	4	0	16.7	75	95	8	52	7	8	0	0	3.8	SE	13.0*	NW	29	13	6	12	5.2	
KANSAS																																
CONCORDIA U	448	964.1	1013.1	32.8	18.3	25.5	-0.6	40.0	18	12.8	25	21	0	15.6	59	69	- 11	27	8	12	0	0	5.4	SSE	16.5	E	4	20	7	4	3.0	82
DODGE CITY	791	927.1	1013.0	33.9	18.3	26.1	-0.2	41.1	10	12.8	25	24	0	13.9	53	42	- 18	23	6	6	0	0	5.0	SSE	15.6	N	23	19	12	0	2.9	90
GOODLAND	1111	889.0	1013.3	32.8	14.4	23.5	-0.2	38.9	10	11.1	31+	17	0	12.2	55	37	- 21	12	6	8	0	0	5.1	S	20.6*	NW	19	22	9	0	2.3	
TOPEKA	267	978.9	1013.9	31.7	18.3	24.8	-0.9	38.9	19	11.1	17	13	0	17.8	68	169	60	114	6	7	0	0	4.9	S	25.0	N	6	14	14	3	3.7	83
WICHITA	403	965.7	1013.2	33.9	20.0	27.1	0.0	41.7	10	13.3	25	23	0	16.7	58	75	2	35	4	3	0	0	4.9	S	17.9			20	9	2	2.6	85
KENTUCKY																																
COVINGTON	265	984.3	1015.9	31.7	16.1	23.9	0.0	38.9	20	11.1	15	16	0	15.6	64	54	- 12	29	3	4	0	0	2.7	SSW	12.1*	NNW	6	7	18	6	4.9	
LEXINGTON	298	981.2	1016.4	30.6	17.8	24.2	-0.2	36.7	20	12.2	11+	9	0	16.7	67	69	- 13	37	7	6	0	0	2.5	SE	11.2*	NW	21	16	13	2	3.8	
LOUISVILLE	144	996.9	1015.8	31.7	17.8	24.7	0.4	38.3	20	11.7	11	14	0	17.2	66	56	- 20	30	5	3	0	0	2.9	S	11.6	SE	7	14	13	4	4.0	64
LOUISIANA																																
ALEXANDRIA	28	1010.7	1015.2	35.6	21.7	28.6		40.0	8	18.9	11	28	0	21.7	72	68		48	10	9	0	0	2.2	SW				12	15	4	4.2	
BATON ROUGE	20	1012.4	1015.4	35.0	23.3	29.1	1.7	38.9	10+	20.0	12	30	0	22.2	74	115	- 18	41	10	15	0	0	2.7	NE				12	15	4	4.7	
BURRWOOD R	2		1015.8											24.4	76								3.7	SE								
LAKE CHARLES	4	1013.5	1015.0	34.4	23.9	29.0	0.8	39.4	8	21.7	27+	26	0	23.3	78	441	319	358	11	13	0	0	3.3	SSW	13.0	NNW	14	12	15	4	4.8	
NEW ORLEANS	1	1013.2	1015.3	32.8	22.8	27.9	0.5	36.1	8	19.4	12	24	0	23.9	82	61	- 74	22	11	15	0	0	2.5	NE	15.6*	SSW	1	12	12	7	5.0	
NEW ORLEANS AUDUBON	3			33.3	23.3	28.5		36.1	10+	21.1	26	27	0																			
SHREVEPORT	77	1005.9	1015.2	36.1	22.8	29.3	0.8	41.7	12	17.8	18	29	0	20.0	63	101	36	51	5	3	0	0	3.9	S				19	8	4	3.1	83
MAINE																																
CARIBOU	190	993.0	1016.2	22.2	11.1	16.8	-0.2	29.4	26	4.4	21	0	0	12.8	81	77	- 16	26	10	3	0	0	3.7	SSE	10.3*	WNW	15	4	13	14	7.0	
PORTLAND	19	1012.6	1016.7	23.9	12.8	18.2	-1.1	28.9	20	5.6	24	0	0	15.0	83	73	11	17	11	2	0	0	3.7	S	13.9	N	30	6	10	15	6.6	51
MARYLAND																																
BALTIMORE	45	1012.1	1016.9	30.0	17.2	23.7	-0.2	37.8	20	12.2	12	7	0	16.1	67	57	- 74	41	5	4	0	0	3.7	W	9.8	N	28+	10	12	9	5.1	65
BALTIMORE U	4			30.0	20.6	25.4	0.2	37.8	20	16.7	24+	9	0			8	-109	3	6													
FREDERICK	90			30.0	15.6	22.7	-0.6	37.8	20	10.6	19+	7	0			6	-103	2	6		0	0										
MASSACHUSETTS																																
BLUE HILL OBS R	192	992.7	1015.8	24.4	15.0	19.8	-0.9	30.6	6	11.7	23+	0	0		67	157	55	83	13		0	0	5.7	SSW	17.4	SW	20					56
BOSTON	5	1011.7	1016.3	25.6	16.7	21.1	-0.9	31.7	6	12.8	23	0	0	15.6	74	94	2	48	10	3	0	0	5.9	S	16.5	N	29	11	5	15	5.9	61
NANTUCKET	13	1016.0	1016.6	22.2	15.6	18.9	-0.9	27.8	27	9.4	25	0	0	16.1	87	98	4	78	8	2	0	0	4.9	S	16.5	NW	29	10	5	16	6.3	52
PITTSFIELD	357			24.4	11.7	18.2	-0.8	30.6	6	6.1	23	0	0			90	- 9	43	8		0	0										
WORCESTER	301	981.2	1017.2	23.9	13.9	18.9	-1.2	28.9	6	9.4	19+	0	0	13.3	73	105	- 2	37	11	1	0	0	3.4	SW	9.4*	WSW	20	7	11	13	6.3	
MICHIGAN																																
ALPENA	210	990.5		25.6	10.0	17.8	-0.8	33.9	24	1.1	18	2	0	12.8	61	72	- 5	27	10	5	0	0	2.7	SE$	8.9	S	24	12	11	8	5.0	71
DETROIT	189	990.1	1016.4	27.2	16.1	21.7	-0.7	31.1	7	11.7	15	0	0	15.6	70	90	18	30	9	9	0	0	3.6	S	13.4	N	8	12	11	8	4.5	67
DETROIT M WAYNE CO	193	997.5	1016.1	27.2	13.3	20.3	-1.6	32.2	4	7.8	15	1	0	15.0	75	79	7	19	10	8	0	0	3.0	SW				11	11	9	4.8	
DETROIT WILLOW RUN	217	987.9	1016.0	28.3	15.0	21.5	-1.1	33.3	24+	8.9	15	4	0	15.6	73	82	10	21	8	8	0	0	3.4	SW	10.7	WSW	31	11	12	8	4.8	
ESCANABA	181	992.7		22.2	13.9	17.9	-0.8	27.8	20	8.3	14	0	0			97	18	28	14	7	0	0	4.0		13.9	NW	13	10	10	11	5.3	59
FLINT	233	989.1	1016.7	27.2	12.8	20.0	-0.9	32.8	24	5.6	15	1	0	14.4	74	35	- 45	9	10	6	0	0	3.1	S	9.8*	SSE	12	13	8	10	4.9	
GRAND RAPIDS	208	991.0	1016.0	28.3	15.0	21.5	0.1	34.4	24	8.9	18+	3	0	13.3	63	27	- 41	10	6	3	0	0	3.8	S	13.4	W	20	14	10	7	4.8	73
LANSING	330	984.1	1015.9	27.8	13.9	20.7	-0.5	34.4	24	6.7	18	2	0	13.9	70	41	- 37	9	11	5	0	0	4.5	SSE	15.2	W	20+	12	10	9	5.0	76
MARQUETTE	206	987.7		22.8	12.8	17.8	-0.9	32.2	28	8.3	10	1	0			86	9	23	11	7	0	0	3.3	SW$	13.0	NW	13	8	9	14	6.2	58
MUSKEGON	191	992.8	1015.8	27.2	15.0	21.2	0.4	33.9	24	8.3	15	2	0	15.0	72	26	- 48	8	7	6	0	0	3.7	SSW	11.2*	SW	20	15	6	10	4.8	
SAULT STE MARIE	220	992.6	1015.2	23.3	11.1	17.3	-0.2	30.0	6	3.3	18	0	0	12.2	77	105	32	52	11	8	0	0	3.4	WNW	8.9*	SW	15	6	11	14	6.3	57
MINNESOTA																																
DULUTH	[illegible]	974.7	1015.1	22.8	10.6	16.6	-1.3	27.8	27+	5.0	17	0	0	11.1	73	112	15	40	10	7	0	0	4.6	ENE	20.1	SE	6	10	8	13	5.9	59
INTERNATIONAL FALLS	359	972.9	1013.9	23.9	10.6	17.2	-0.1	30.0	27+	4.4	17	0	0	12.2	76	67	- 26	20	9	7	0	0	3.0	SE	13.4*	NW	5	10	7	14	5.7	

See footnotes at end of table

CLIMATOLOGICAL DATA

METRIC UNITS

State and Station	Elevation (ground)	Pressure		Temperature											Average relative humidity	Precipitation							Wind						No of days (sunrise to sunset)			Sky cover, tenths (sunrise to sunset)	Possible sunshine
												No. of days							No of days		Snow, Sleet				Fastest mile (1.6 kilometers)							
		Station Ω	Sea level	Average maximum	Average minimum	Average	Departure from normal	Highest	Date	Lowest	Date	Max 32.2 °C or above	Min. 0 C or lower	Average dew point		Total	Departure from normal	Greatest in 24 hours	25 mm. or more	With thunderstorms	Total	Maximum depth on ground	Average speed	Prevailing direction	Speed	Direction	Date	Clear, 0-3	Partly cloudy, 4-7	Cloudy, 8-10		
MINNESOTA	M	Mb.	Mb.	C.	C.	C.	C.	C		C.				C.	%	Mm.	Mm.	Mm.			Mm	Mm.	M.p.s.		M.p.s							%
MINNEAPOLIS	555	981.5	1014.7	26.7	13.9	20.2	-1.2	32.8	21+	5.6	17	2	0	15.0	73	88	7	31	12	9	0	0	4.0	SSE	17.4	ENE	6	11	11	9	4.8	67
ROCHESTER	395	968.1	1015.5	26.1	13.9	20.1	-0.9	31.1	19	7.2	17	0	0	15.0	74	139	43	78	9	8	0	0	4.5	S				9	13	9	5.2	
ST CLOUD	315	977.1	1014.7	26.7	13.3	20.0	-0.3	31.7	21	7.8	29+	0	0	6.7	72	82	- 13	37	7	5	0	0						15	7	9	4.5	
MISSISSIPPI																																
JACKSON	93	1003.3	1015.2	34.4	22.2	28.4	1.1	37.2	18+	17.8	11	29	0	20.6	68	74	- 11	41	5	11	0	0	2.8	S	8.9	SE	21+	12	14	5	4.3	79
MERIDIAN	89	1002.4	1015.8	34.4	20.6	27.7	0.4	37.8	18	15.6	11	28	0	21.1	75	34	- 56	20	5	6	0	0	2.3	S	10.3*	W	4	11	15	5	4.9	
VICKSBURG U	71			33.3	23.3	28.2	0.6	35.0	20+	20.0	15	24	0			26	- 50	19	7	7	0	0	3.1		12.1	E	19	21	7	3	3.5	85
MISSOURI																																
COLUMBIA	237	986.2	1014.0	32.8	18.3	25.7	0.6	39.4	19	11.7	26	18	0	16.1	60	34	- 63	22	6	8	0	0	4.3	SSE	17.0	NW	4	17	8	6	3.7	90
KANSAS CITY	226	979.7	1013.8	32.8	20.0	26.3	0.0	39.4	19	13.9	17	17	0	17.2	60	79	- 17	52	4	8	0	0	3.8	SSW	16.5	NW	23	14	13	4	3.8	79
ST JOSEPH	247	980.1		31.7	18.3	24.8	-0.5	38.9	19	11.7	17	12	0			80	- 27	61	9	12	0	0	3.8	S	11.2*	NNW	23+	18	11	2	3.3	
ST LOUIS	163	995.0	1015.4	30.6	17.8	24.2	-1.2	40.6	19	11.7	15	9	0	16.7	67	58	- 19	32	6	8	0	0	2.9	SE	17.0			14	11	6	4.4	79
ST LOUIS RFC	142			31.1	20.6	25.6	-0.6	40.6	19	15.6	15	10	0			67	- 25	23	6		0	0										
SPRINGFIELD	386	968.6	1015.1	33.3	17.8	25.6	0.0	38.3	20+	7.8	26	20	0	16.7	64	20	- 65	8	9	6	0	0	4.2	SSE	13.4	S	29	17	8	6	3.4	79
MONTANA																																
BILLINGS	1087	891.3	1013.1	28.3	13.3	20.8	-0.8	36.1	8	6.7	30	10	0	6.7	45	30	7	13	9	5	0	0	4.2	WSW	17.0	NW	17	14	12	5	4.3	77
GLASGOW	694	938.7		27.2	13.3	20.3	0.4	34.4	8	4.4	29	6	0	8.3	51	47	10	17	8	8	0	0						11	12	8	5.0	
GREAT FALLS	1116	888.6	1013.5	27.2	11.7	19.6	0.0	34.4	12	4.4	30	6	0	4.4	43	43	11	28	9	7	0	0	5.0	SW	15.2	W	18	10	12	9	5.4	70
HAVRE	787	924.8		28.3	11.1	19.8	0.4	35.6	17+	6.1	29	9	0			24	- 4	7	6	6	0	0	3.9	W$	20.1	SW	25	9	11	11	5.8	69
HELENA	1187	874.4	1014.9	26.7	10.0	18.3	-0.7	35.6	12	3.9	30	2	0	5.6	49	46	23	21	9	10	0	0	3.5	WNW	15.6	S	21+	9	13	9	5.1	70
KALISPELL	904	912.0		26.1	7.2	16.7	-0.6	36.7	16	- 0.6	23	4	1			24	- 4	13	9	5	0	0	2.7					10	9	12	5.5	
MILES CITY	801			30.0	13.9	21.8	-0.7	37.8	17+	5.0	30	14	0			9	- 22	7	6	9	0	0	4.0	NW	15.6*	NW	27+	17	9	5	3.7	
MISSOULA	972	902.8	1016.1	26.7	7.8	17.2	-1.1	35.6	15	2.8	24+	4	0	6.1	55	15	- 3	9	7	6	0	0	3.1	NW	21.9	SW	16	10	8	13	5.6	80
NEBRASKA																																
GRAND ISLAND	561	948.6		30.0	15.6	22.9	-2.0	36.1	19	9.4	25	10	0	15.0	66	42	- 18	15	11	13	0	0	4.3	S				17	9	5	3.3	
LINCOLN U	351			30.6	17.8	24.3	-1.1	37.8	19	12.2	25	12	0			133	47	58	11	12	0	0	4.3	SE$	21.9	SW	2	13	12	6	3.9	79
NORFOLK	471	959.0		29.4	16.1	22.6	-1.4	36.7	27	8.3	25	5	0	15.0	59	33	- 34	12	9	12	0	0						17	8	6	3.8	
NORTH PLATTE	847	915.6	1012.7	30.6	14.4	22.6	-1.0	37.2	26	8.3	31	11	0	12.8	58	3	- 52	1	5	5	0	0	4.6	SSE	20.1	SE	14	17	12	2	2.8	87
OMAHA	298	974.8	1013.9	30.0	17.8	23.9	-0.7	33.9	27+	11.1	25	10	0	16.7	68	97	- 5	67	10	8	0	0	4.3	SSE	24.6	N	9	14	10	7	4.3	74
OMAHA N OMAHA AP	403	966.8		28.9	17.2	22.8	-0.4	33.9	19	10.6	25	5	0			142	37	80	9	10	0	0						13	11	7	4.5	
SCOTTSBLUFF	1204	879.7	1013.5	30.6	12.2	21.3	-1.2	37.2	27	5.0	28	14	0	10.0	55	7	- 19	7	3	6	0	0	4.2	NW	15.6*	NNW	27+	19	7	5	3.2	
VALENTINE	789	923.7		31.1	13.3	22.0	-0.7	40.0	27	5.0	28	14	0			43	- 15	22	6	8	0	0	4.6	NW$	32.2	S	10	19	10	2	2.9	84
NEVADA																																
ELKO	1547	846.6	1014.9	30.0	6.7	18.4	-1.0	35.6	15+	- 1.1	31	13	1	- 2.2	27	7	- 1	6	2	3	0	0	3.0	SW	13.0*	SSW	17	20	10	1	2.4	
ELY	1907	812.1	1013.3	30.0	7.8	18.8	-0.2	35.0	14	- 1.7	31	5	1	- 2.8	25	T	- 12	T	0	2	0	0	4.7	SSW	19.2	S	9	23	8	0	1.9	92
LAS VEGAS	659	945.5	1009.9	40.0	23.9	32.1	1.2	44.4	13	18.3	31	31	0	- 1.1	13	T	- 12	T	0	0	0	0	5.4	SW	13.9*	SW	9	24	6	1	1.6	93
RENO	1342	864.2	1016.3	30.0	3.3	16.4	-2.8	33.9	15+	- 4.4	29	8	4	2.8	44	2	- 2	2	1	1	0	0	2.8	SW	15.2	SW	9	28	3	0	1.3	94
WINNEMUCCA	1310	868.9		30.6	7.8	19.3	-0.5	37.8	14	0.6	31+	17	0	- 1.1	28	4		4	1	0	0	0	3.7	W	15.2	S	20	22	8	1	2.2	
NEW HAMPSHIRE																																
CONCORD	103	1006.3	1017.1	26.1	13.9	19.9	0.2	31.1	6	6.1	19	0	0	14.4	76	66	- 9	24	10	2	0	0	2.2	S	8.0	S	7	6	12	13	6.3	50
MT WASHINGTON OBS	1909	810.5		12.8	6.1	9.3	0.6	16.7	31+	0.0	19	0	1		65	284	116	100	14	1	0	0	8.5	W	30.8Y	W	14	6	8	17	6.7	39
NEW JERSEY																																
ATLANTIC CITY	18	1014.1	1017.2	27.8	17.8	22.8	-0.4	34.4	20	12.8	24	2	0	17.8	75	134	10	71	7	5	0	0	3.8	S	10.3*	S	7	11	10	10	5.5	67
ATLANTIC CITY U	3			25.6	21.1	23.6	0.4	28.9	21+	17.2	11	0	0			111	- 20	68	7				4.5		11.6*	NNW	21					
NEWARK	3	1015.7	1017.1	27.2	18.3	22.7	-0.8	33.9	20	13.9	11+	2	0	16.1	70	146	33	39	11	5	0	0	3.8	NNE	13.9*	NNW	21	10	11	10	5.8	
TRENTON U	17	1009.1		27.8	17.2	22.5	-0.8	33.3	20	12.8	11	1	0			189	68	79	10	10	0	0	3.5	S	13.9	NW	20	10	11	10	5.4	65
NEW MEXICO																																
ALBUQUERQUE	1618	851.0	1013.2	33.9	17.2	25.3	0.5	36.7	9	13.9	17	28	0	5.0	31	T	- 34	T	0	6	0	0	3.2	SE	17.0	W	21	24	7	0	2.1	88
CLAYTON	1515	848.0		32.8	15.0	23.9	0.9	36.7	9	10.6	25	19	0			14	- 39	11	3	5	0	0						22	6	3	2.4	
RATON	1944	810.0		30.6	10.6	20.6	0.5	34.4	10+	6.7	29	13	0			33	- 34	22	5	10	0	0						16	14	1	3.3	
ROSWELL	1103	894.0		35.0	15.0	25.2	0.7	38.3	28	10.6	27+	28	0	10.0	44	33	- 8	20	4	5	0	0	3.8		12.1	SW	15	24	6	1	1.9	90
SILVER CITY	1638	838.8		33.3	16.1	24.8		36.1	8	12.8	18	23	0			12		5	4	6	0	0						20	9	2	3.0	
NEW YORK																																
ALBANY	84	1005.9	1016.5	26.7	14.4	20.6	-0.6	32.2	31+	7.2	19	2	0	14.4	71	66	- 12	26	9	4	0	0	3.6	S	14.3	NE	29	6	13	12	6.1	64

See footnotes at end of table

CLIMATOLOGICAL DATA

METRIC UNITS

State and Station	Elevation (ground)	Pressure: Station ⊙	Pressure: Sea level	Temperature: Average maximum	Temperature: Average minimum	Temperature: Average	Temperature: Departure from normal	Temperature: Highest	Temperature: Date	Temperature: Lowest	Temperature: Date	Temperature: No. of days: Max 32.2 °C or above	Temperature: No. of days: Min. 0 C or lower	Average dew point	Average relative humidity	Precipitation: Total	Precipitation: Departure from normal	Precipitation: Greatest in 24 hours	Precipitation: No. of days: 25 mm. or more	Precipitation: No. of days: With thunderstorms	Precipitation: Snow, Sleet: Total	Precipitation: Snow, Sleet: Maximum depth on ground	Wind: Average speed	Wind: Prevailing direction	Wind: Fastest mile (1.6 kilometers): Speed	Wind: Fastest mile (1.6 kilometers): Direction	Wind: Fastest mile (1.6 kilometers): Date	No. of days (sunrise to sunset): Clear, 0-3	No. of days (sunrise to sunset): Partly cloudy, 4-7	No. of days (sunrise to sunset): Cloudy, 8-10	Sky cover, tenths (sunrise to sunset)	Possible sunshine
	M.	Mb.	Mb.	C.	C.	C.	C.	C.		C.				C.	%	Mm.	Mm.	Mm.			Mm.	Mm.	M.p.s.		M.p.s							%
NEW YORK																																
BINGHAMTON	485	958.2	1016.6	25.0	13.9	19.4	0.3	32.8	20	8.3	12	1	0	15.0	78	74	- 16	45	11	4	0	0	3.9	SSW	8.5	W	21+	7	11	13	6.3	61
BUFFALO	215	988.7	1016.7	26.7	13.3	20.1	-0.2	33.9	31	8.3	22+	2	0	13.9	70	76	- 1	27	14	10	0	0	3.9	WSW	13.0	W	20	6	16	9	5.8	73
NEW YORK U	40	1005.3		27.2	17.8	22.4	-1.5	32.8	20	13.3	11+	2	0	16.1	74	145	32	42	10	5	0	0	3.3	SW$	10.7	W	21	11	14	6	4.9	60
NEW YORK LA GUARDIA	6	1014.7	1016.8	26.7	18.3	22.6	-1.6	32.8	20	13.9	11+	1	0	16.1	71	129		33	9	6	0	0	4.4	S	10.7	WNW	21	9	14	8	5.6	
ROCHESTER	166	997.3	1016.5	26.7	14.4	20.5	-0.4	34.4	31	8.3	23	3	0	14.4	72	90	21	48	12	10	0	0	4.0	SSW	15.2	W	20	7	17	7	5.7	69
SCHENECTADY	66			26.1	15.0	20.4	-1.1	31.7	20	9.4	23+	0	0			65	- 18	22	9	4	0	0						19	10	2	3.4	
SYRACUSE	127	994.3	1015.9	26.1	15.0	20.6	-0.6	33.3	31	10.0	23+	1	0	14.4	71	118	35	33	11	8	0	0	4.7	WNW	13.4	W	21	10	14	7	5.3	74
NORTH CAROLINA																																
ASHEVILLE U	671	939.3		28.3	16.1	22.4	-0.7	32.2	20	12.2	25	1	0			88	- 4	41	9	12	0	0	2.5	S$	15.6	NW	6	10	18	3	4.9	67
CAPE HATTERAS R	2	1015.2	1016.0	28.9	21.7	25.3	-0.1	31.7	7	17.8	31	0	0	21.1	79	297	134	206	10	8	0	0	4.2	ENE	17.9	NNE	28	11	9	11	5.5	68
CHARLOTTE	224	988.9	1016.7	30.6	19.4	25.0	-0.4	35.0	31	14.4	12	10	0	17.8	69	70	- 37	37	5	4	0	0	2.9	NNE	8.9	S	15	8	16	7	5.3	74
GREENSBORO	272	985.7	1017.2	30.0	18.3	24.3	-0.2	34.4	21+	13.3	12	9	0	17.8	73	30	- 87	15	7	8	0	0	3.0	NE	10.7	NE	31	7	20	4	5.1	63
RALEIGH	132	1002.8	1016.5	30.0	18.3	24.3	-0.6	34.4	21	13.9	12	7	0	19.4	77	50	- 82	23	10	6	0	0	3.0	ENE	11.2*	NNE	21	8	14	9	5.4	59
WILMINGTON	9	1013.5	1016.5	31.1	20.6	26.0	-0.3	33.9	7	16.7	13+	10	0	21.7	81	126	- 48	73	10	6	0	0	3.7	N	12.5	NW	18	8	13	10	5.8	76
WINSTON SALEM	295	982.2	1017.2	30.0	18.9	24.3	-0.6	34.4	21+	14.4	12	10	0	17.2	69	54	- 55	33	5	7	0	0	3.2	NE	11.2*	WSW	16	11	16	4	4.6	
NORTH DAKOTA																																
BISMARCK	502	953.0	1012.5	30.0	12.8	21.2	-0.2	37.2	21	3.9	31	12	0	11.1	57	26	- 18	18	6	6	0	0	3.1	WNW	21.0	NW	27	16	11	4	3.8	79
DEVILS LAKE U	448	959.7		26.7	12.8	19.8	0.2	32.8	21	8.3	30	4	0			90	35	60	12	7	0	0	3.3	S$	15.6			14	13	4	3.9	74
FARGO	274	978.9	1012.7	28.9	15.0	22.0	1.2	36.1	27	9.4	30	6	0	15.6	68	83	8	53	6	6	0	0	4.2	ESE	25.0	W	27	14	15	2	4.1	81
WILLISTON U	579	945.3		28.3	11.7	20.2	-0.2	35.6	21	3.9	30	10	0	10.0	53	50	12	24	9	2	0	0	4.6	W$	20.1	NW	27	10	15	6	4.7	71
OHIO																																
AKRON	369	978.9	1016.8	28.3	15.0	21.8	0.4	33.3	30	8.9	15	3	0	13.9	64	50	- 29	35	7	6	0	0	3.0	S	10.3*	SW	6	12	12	7	4.7	
CINCINNATI OBS	232			30.6	17.8	24.2	-0.1	37.8	20	12.2	15	12	0			49	- 35	21	4	5	0	0	2.0	S	6.7	W	21					89
CINCINNATI U	169	993.0		31.1	18.9	25.1	0.5	37.8	20	13.3	15	15	0			43	- 43	24	3	3	0	0										
CLEVELAND	237	988.7	1016.3	27.8	14.4	21.2	0.4	33.3	25+	6.7	15	6	0	15.6	71	33	- 50	9	10	5	0	0	3.5	SSE	16.5	NW	20	13	9	9	4.5	78
COLUMBUS	247	986.7	1016.5	28.9	15.0	22.0	-0.9	35.6	20	8.9	18	5	0	15.6	71	59	- 14	37	7	4	0	0	2.5	N	15.6	SE	4	11	12	8	4.9	73
COLUMBUS U	221			29.4	17.8	23.5	-0.2	36.1	20	12.8	10	5	0			28	- 43	14	9	4	0	0										
DAYTON	304	984.0	1016.3	29.4	15.6	22.5	-0.7	36.7	20	8.3	15	6	0	15.0	66	54	- 19	27	5	5	0	0	3.3	NNW	11.6	S	19	12	15	4	4.6	76
MANSFIELD	395			27.2	15.0	20.9	-0.3	33.3	20	8.3	15	1	0			86	4	42	8	5	0	0						12	11	8	4.6	
SANDUSKY U	185	995.0		27.8	16.7	22.2	-0.8	33.9	4	10.6	18	3	0			74	- 9	30	9	9	0	0	3.0		25.9	NW	20	18	8	5	3.5	79
TOLEDO	206	990.6	1015.9	28.9	13.9	21.4	-0.2	35.0	24	7.8	18	7	0	15.0	72	35	- 50	17	6	5	0	0	3.0	SW	11.2	N	8	13	10	8	4.6	73
YOUNGSTOWN	359	974.5	1016.8	27.8	13.3	20.7	-0.4	32.2	20	7.8	18+	1	0	12.8	65	33	- 56	22	7	5	0	0	3.7	SSE	11.2*	N	20+	11	12	8	4.9	
OKLAHOMA																																
OKLAHOMA CITY	390	971.7	1014.1	35.6	20.6	28.1	0.7	41.1	11+	12.8	26	24	0	16.7	54	57	- 7	43	3	3	0	0	5.3	SSE	15.2	SE	31	24	3	4	2.2	89
TULSA	206	990.6	1014.0	34.4	20.6	27.4	-0.4	38.9	19	14.4	26	24	0	18.3	61	79	2	47	4	4	0	0	4.2	SSE	12.5	E	5	23	5	3	2.7	82
OREGON																																
ASTORIA	2	1017.6	1018.2	20.0	11.7	15.8	0.0	25.6	29	7.8	29+	0	0	12.8	85	63	25	22	14	0	0	0	4.0	WSW	10.7*	NW	24	6	9	16	6.8	
BURNS U	1265	874.4		27.2	8.3	17.7	-1.9	33.9	15	1.7	27	5	0	2.8	41	2	- 5	1	3	0	0	0						18	7	6	3.2	
EUGENE	110	1004.1		26.1	10.0	18.2	-0.7	32.8	24	5.6	27	2	0			30	20	15	5	0	0	0	3.4		9.4*	N	22	13	8	10	4.9	
MEACHAM	1234			21.7	8.3	14.8	-1.7	29.4	15	2.8	27	0	0			15	2	6	6	0	0	0						15	7	9	4.2	
MEDFORD	396	969.2	1016.3	30.0	11.1	20.4	-1.1	36.7	24	3.9	27	10	0	10.0	58	25	21	14	4	0	0	0	2.5	WNW	9.4*	WNW	3	21	6	4	2.7	
PENDLETON	452	962.8	1015.7	28.3	13.3	21.0	-0.9	36.7	15	8.3	29	7	0	5.6	41	11	4	6	5	1	0	0	4.1	W	13.4*	WNW	3	15	8	8	4.0	
PORTLAND	6	1011.9	1017.3	25.0	12.8	18.9	-0.3	30.6	30+	7.8	26	0	0	11.7	66	38	21	18	8	0	0	0	3.4	NW	10.7	S	7	11	5	15	5.7	53
PORTLAND U	9			24.4	14.4	19.4	-0.7	31.7	15	10.6	27	0	0			39	22	17	7		0	0										
ROSEBURG	154	998.6		28.3	11.1	19.6	-0.2	35.0	24	6.1	27	6	0			13	6	9	5	2	0	0	2.4	N$	8.9	NE	25+	15	7	9	4.4	
SALEM	59	1010.5	1017.7	26.7	10.0	18.2	-1.0	32.8	31+	3.9	27	4	0	11.1	68	18	6	8	8	0	0	0	3.0	S	8.0*	WNW	29+	13	5	13	5.2	
SEXTON SUMMIT R	1169	886.2		21.7	10.0	16.0	-1.1	30.0	24	5.6	22+	0	0			56	50	34	6	0	0	0	4.3	N				20	4	7	3.0	
PACIFIC AREA																																
CANTON ISLAND	2	1010.5	1010.7	31.7	25.6	28.6	0.0	32.8	27+	23.9	9	7	0	22.2	71	12	- 52	4	10	0	0	0	6.3	ENE	10.7*	E	31	16	12	3	4.1	
ENIWETOK	4	1010.0		31.1	25.6	28.1	-0.2	32.2	14	23.3	26+	1	0			163	- 10	25	26		0	0										
TAGUAC GUAM R	110			29.4	22.8	26.1	-0.2	31.1	27+	20.6	22+	0	0			359	33	67	24		0	0	2.4	E$	9.4	E	5					50
KOROR R	29	1007.4	1010.2	30.6	23.9	27.3	0.1	32.8	31	22.2	2	1	0	23.9	86	494	94	208	26	1	0	0	2.5	SW	9.8	W	2	0	1	30	9.6	62
KWAJALEIN	2	1010.3	1010.4	30.6	25.0	27.6	-0.1	31.7	31	22.8	31	0	0	23.9	79	184	- 57	35	26	2	0	0	4.9	E	15.6*	E	31	1	11	19	7.7	
PONAPE R	37	1005.4	1010.0	31.1	22.8	26.3	0.5	32.2	27+	21.1	13	5	0	23.9	88	471	56	114	28	7	0	0	1.2	ESE	8.9	E	31+	0	6	25	8.9	49
TRUK MOEN ISLAND	2	1009.6	1009.7	30.0	23.9	26.9	0.0	31.7	22+	21.7	19	0	0	23.9	85	419	94	63	24	2	0	0	1.7	NE	11.2	SW	25	1	8	22	8.4	20
WAKE ISLAND	3	1013.3	1013.4	30.6	24.4	27.7	-0.3	32.2	18+	21.1	25	2	0	23.9	78	217	37	42	22	6	0	0	5.1	ENE	13.0*	E	25	1	11	19	7.9	
YAP R	17	1007.8	1009.0	30.0	23.9	26.8	-0.6	32.2	24+	22.8	30+	2	0	23.9	87	440	67	113	26	3	0	0	2.8	SW	24.6	W	2	0	0	31	10.0	85

See footnotes at end of table

CLIMATOLOGICAL DATA

METRIC UNITS

State and Station	Elevation (ground)	Pressure		Temperature												Precipitation							Wind					No of days (sunrise to sunset)			Sky cover, tenths (sunrise to sunset)	Possible sunshine
												No. of days							No of days		Snow, Sleet				Fastest mile (1.6 kilometers)							
		Station Ø	Sea level	Average maximum	Average minimum	Average	Departure from normal	Highest	Date	Lowest	Date	Max. 32.2 °C or above	Min. 0 °C or lower	Average dew point	Average relative humidity	Total	Departure from normal	Greatest in 24 hours	.25 mm or more	With thunderstorms	Total	Maximum depth on ground	Average speed	Prevailing direction	Speed	Direction	Date	Clear, 0-3	Partly cloudy 4-7	Cloudy, 8-10		
PENNSYLVANIA	M.	Mb.	Mb.	C.	C.	C.	C.	C.		C.				C.	%	Mm.	Mm.	Mm.			Mm	Mm.	M.p.s.		M.p.s.							%
ALLENTOWN	115	1003.1	1017.3	27.2	15.6	21.4	-0.8	32.2	31+	11.1	18	3	0	16.1	75	165	52	40	10	9	0	0	3.8	NE	23.2*	W	20	12	8	11	5.2	
ERIE	223	990.3	1016.4	25.6	15.6	20.6	-0.4	32.8	31	9.4	18	1	0	14.4	70	116	40	49	10	10	0	0	5.0	S	14.3*	SSW	6	13	13	5	4.3	
HARRISBURG	102	1002.8	1016.6	28.9	16.7	22.8	-0.3	37.8	20	11.7	18	5	0	17.2	76	106	13	56	12	10	0	0	3.0	ESE	15.6	NW	20	9	9	13	5.6	68
PHILADELPHIA	2	1012.2	1016.7	27.8	16.7	22.2	-0.9	32.8	20	11.7	12	3	0	16.7	72	167	50	56	10	7	0	0	3.0	S	11.2	W	9	9	12	10	5.2	63
PHILADELPHIA U	11			28.3	18.9	23.6	-0.4	35.0	20	13.3	11	3	0																			
PITTSBURGH	356	986.9	1017.4	28.9	14.4	21.6	0.0	35.0	20	7.2	18	5	0	13.9	65	65	- 19	37	7	7	0	0	3.0	SE	10.3*	NNW	21	9	11	11	5.3	72
PITTSBURGH U	228			29.4	17.2	23.3	-0.1	35.6	20	11.1	18	6	0			80	- 9	39	9		0	0										56
READING U	81	1004.6	1016.2	28.3	17.8	23.1	-0.7	35.0	20	12.8	12	5	0			90	- 13	47	9	5	0	0	3.8	S$	14.3	N	20	10	13	8	5.3	69
SCRANTON	287	983.3	1017.2	27.2	15.6	21.3	0.8	32.8	20	10.0	18	2	0	14.4	70	103	12	40	12	6	0	0	3.3	SSW	8.9	SE	7	8	12	11	5.7	53
WILLIAMSPORT	161	997.9	1016.9	27.8	15.0	21.3	-0.7	35.0	20	8.9	19	4	0	14.4	70	116	24	43	8	7	0	0	3.5	W	14.8*	NNE	20	7	16	8	5.8	
RHODE ISLAND																																
BLOCK ISLAND	34	1012.3	1016.7	23.3	17.2	20.3	-0.6	31.1	8	10.6	24	0	0			171	73	78	9	4	0	0						10	8	13	6.2	
PROVIDENCE	17	1010.6	1016.7	25.0	16.1	20.6	-0.8	30.6	8	9.4	24	0	0	16.1	78	69	- 31	38	9	3	0	0	4.6	SSW	14.8*	NNW	29	8	11	12	5.9	49
SOUTH CAROLINA																																
CHARLESTON	12	1013.8	1015.9	31.1	21.1	26.1	-0.4	33.9	6	16.7	13	8	0	21.1	79	293	125	117	10	9	0	0	3.0	NNE	22.8Y	N	3	6	11	14	6.4	78
COLUMBIA	66	1003.3	1015.9	33.3	20.6	27.0	0.1	36.7	7	17.2	30+	22	0	20.0	73	79	- 67	34	11	11	0	0	2.8	NE	17.9*	NNW	7	11	11	9	5.3	62
FLORENCE	45	1010.3	1016.0	32.2	20.0	26.3	-0.3	35.0	7+	16.7	13	21	0	20.6	76	56	- 60	23	9	7	0	0	2.9	NE	11.2*	WNW	16	9	12	10	5.7	
GREENVILLE	308	979.9	1016.4	31.7	20.0	25.9	-0.4	33.9	30+	18.3	31+	15	0	19.4	73	99	- 21	48	6	6	0	0	2.6	ENE	11.6	NW	7	10	15	6	4.9	66
SPARTANBURG	244	987.1		31.1	19.4	25.2	-0.4	33.9	20+	16.7	25	13	0			83	- 27	27	8	10	0	0	2.9		15.6*	E	14	9	18	4	4.8	
SOUTH DAKOTA																																
HURON	391	966.8	1013.2	28.3	14.4	21.4	-1.5	34.4	27	7.8	28	4	0	16.1	76	53	0	26	9	11	0	0	4.5	SSE	17.9	SW	4	19	8	4	3.3	80
RAPID CITY	965	901.5	1013.4	30.0	13.3	21.8	-0.4	37.2	21	5.6	28	14	0	9.4	51	26	- 5	18	3	6	0	0	4.1	NNW	20.1	N	27	21	6	4	3.3	77
SIOUX FALLS	433	963.1	1013.9	28.3	15.0	21.8	-0.3	34.4	27+	8.9	25	5	0	15.6	69	70	- 21	45	9	10	0	0	4.4	SSE	19.7*	E	9	15	12	4	3.8	
TENNESSEE																																
BRISTOL	459	962.2	1016.9	30.0	17.2	23.6	0.1	33.9	20	10.6	11	5	0	16.1	69	56	- 40	24	7	7	0	0	1.7	NE	20.6*	NNW	21	11	14	6	4.8	
CHATTANOOGA	204	988.9	1016.2	33.3	20.0	26.6	0.8	36.7	20	16.1	30	25	0	19.4	69	30	- 66	18	4	7	0	0	2.6	S	17.0	W	7	13	17	1	4.2	76
KNOXVILLE	290	981.7	1016.8	32.2	19.4	25.7	0.2	35.0	30	14.4	11	13	0	17.8	65	53	- 35	19	6	8	0	0	3.0	NE	25.0	S	13	12	14	5	4.5	70
MEMPHIS	80	1001.0	1015.4	32.8	21.7	27.1	-0.1	37.2	19	14.4	16	20	0	20.0	67	106	31	65	7	6	0	0	3.9	NE	12.5	N	4	17	9	5	3.6	83
MEMPHIS U	83			31.7	22.2	26.9	-0.3	35.0	20+	17.8	15	19	0			135	69	74	8		0	0										
NASHVILLE	176	995.7	1015.3	33.3	19.4	26.5	0.3	38.3	19	15.6	11	25	0	18.3	66	62	- 10	30	6	7	0	0	2.9	S	13.0	NW	4	11	14	6	4.5	71
OAK RIDGE	276	984.3		30.6	18.3	24.4	-0.3	35.0	20	15.6	30+	9	0			73	- 44	32	8	7	0	0	1.7		15.6Y		17	16	11	4	3.6	
TEXAS																																
ABILENE	536	953.4	1013.1	36.7	21.7	29.1	0.7	40.0	6	15.0	26	29	0	15.6	47	38		44	3	3	0	0	4.0	SSE	13.4	SW	31	23	6	2	2.3	89
AMARILLO	1099	890.1	1012.8	33.3	18.3	25.7	0.2	37.2	10+	12.8	25	23	0	13.9	53	84	18	40	5	6	0	0	4.9	SSW	17.9	SE	15	24	5	2	2.1	89
AUSTIN	182	992.1	1013.7	37.2	23.9	30.4	1.2	40.6	12+	21.1	25+	30	0	18.3	53	116	67	116	4	3	0	0	3.6	S	13.0	N	24	19	11	1	3.4	84
BROWNSVILLE	5	1011.6	1013.9	35.0	24.4	29.9	0.9	38.9	14	22.8	16+	31	0	22.8	71	3	- 67	2	5	3	0	0	5.0	SE	12.1	SE	30	17	14	0	3.3	75
CORPUS CHRISTI	13	1013.1	1014.2	35.6	25.0	30.2	1.2	39.4	14+	22.2	17	31	0	22.8	68	23	- 47	18	3	3	0	0	5.2	SSE	13.4	SE	4	15	12	4	4.5	76
DALLAS	147	996.1	1014.2	35.6	23.9	29.8	0.3	39.4	11+	17.8	26	28	0	18.9	55	86	37	46	3	4	0	0	4.5	SE	17.9	N	24	20	8	3	2.8	86
DEL RIO U	292			38.3	25.0	31.6	2.1	42.2	13	21.1	27	31	0			1	- 35	1	2	2	0	0										
EL PASO	1194	886.7	1011.0	36.7	21.1	28.9	2.3	38.9	29+	16.7	26	30	0	7.2	27	T	- 30	T	0	2	0	0	3.0	S	27.3	N	15	24	7	0	1.8	92
FORT WORTH	166	993.7	1014.0	36.1	23.3	29.8	0.1	40.0	10	17.8	26	27	0	19.4	56	82	39	51	4	3	0	0	3.9	S	12.1*	NW	24	20	8	3	3.0	
GALVESTON U	2			31.7	25.6	28.9	0.4	36.1	10	22.8	28+	6	0			56	- 56	33			0	0	4.8		12.5	E	28+					86
GALVESTON	2	1012.7	1015.1	32.2	26.1	29.3	0.6	36.1	10+	23.3	28	19	0	22.2	68	64	- 51	33	4	9	0	0	4.2	S				17	10	4	3.5	
HOUSTON U	12			36.1	25.6	30.8	1.9	41.1	9	22.8	16	30	0			62	- 28	24	9		0	0										
HOUSTON	15	1011.6	1014.2	36.1	23.9	29.9	1.2	41.1	13	20.0	16	30	0	23.3	76	70	- 38	47	7	7	0	0	3.8	SSE				15	12	4	4.2	84
LAREDO	152	997.4	1012.7	38.9	25.0	31.9	1.1	42.2	10	22.8	28+	30	0	18.9	52	25	- 18	10	4	4	0	0	5.4	SE	15.6*	E	15	20	7	4	3.2	
LUBBOCK	988	904.7	1013.9	33.9	17.8	25.7	-0.3	36.7	10+	11.7	26	23	0	14.4	53	33	- 9	23	6	6	0	0	5.0	SE	15.6*	N	13	26	1	4	1.8	
MIDLAND	870	915.5	1012.0	36.1	20.6	28.3	0.4	39.4	7+	16.7	27+	29	0	12.8	42	68	30	24	5	6	0	0	4.1	SSE	13.9*	NNE	31	24	5	2	2.3	
PORT ARTHUR	5	1013.7	1014.4	36.1	23.3	29.8	2.1	41.7	10	21.7	25+	30	0	23.3	76	150	10	49	8	11	0	0	3.4	SW	25.0	NE	14	14	14	3	4.4	80
SAN ANGELO	580	946.9	1012.3	38.3	22.2	30.5	1.0	41.7	10+	14.4	27	31	0	14.4	41	15	- 17	10	4	5	0	0	3.5	SSE	9.4*	NNW	31+	26	3	2	1.8	
SAN ANTONIO	241	989.1	1013.5	37.2	24.4	30.8	2.1	41.1	13	20.0	16	30	0	18.9	53	40	- 20	40	1	3	0	0	4.2	SSE	13.0	N	25	20	11	0	2.9	85
VICTORIA	32	1009.3		36.7	23.9	30.3	1.7	41.7	13	21.7	16	31	0	21.7	60	31	- 49	12	8	9	0	0	4.1		20.6*			14	13	4	4.1	
WACO	152	993.0	1013.8	37.8	24.4	31.1	1.4	42.2	10	20.6	27+	31	0	18.3	49	18	- 24	18	2	1	0	0	5.5	S	19.7	NW	24	21	9	1	2.5	
WICHITA FALLS	303	977.0	1012.9	37.8	22.2	29.9	0.3	43.9	11	12.2	26	30	0	15.6	47	24	- 21	26	2	3	0	0	4.5	SSE	10.3*	NNE	24	22	5	4	2.6	
UTAH																																
MILFORD	1533	846.3		33.3	10.6	21.9	-0.4	38.3	14	2.2	31	22	0			3	- 15	3	2	3	0	0						23	6	2	2.0	
SALT LAKE CITY	1286	868.6	1013.6	32.2	13.3	22.8	-0.8	38.3	15	3.3	31	20	0	3.9	32	7	- 15	2	5	6	0	0	4.3	S	15.2	S	21	19	10	2	2.9	89

See footnotes at end of table

CLIMATOLOGICAL DATA

METRIC UNITS

AUGUST 1962

State and Station		Pressure		Temperature												Precipitation							Wind					No. of days (sunrise to sunset)				
												No. of days							No of days		Snow, Sleet				Fastest mile (1.6 kilometers)							
	Elevation (ground)	Station ⊙	Sea level	Average maximum	Average minimum	Average	Departure from normal	Highest	Date	Lowest	Date	Max 32.2 °C or above	Min 0 C or lower	Average dew point	Average relative humidity	Total	Departure from normal	Greatest in 24 hours	25 mm or more	With thunderstorms	Total	Maximum depth on ground	Average speed	Prevailing direction	Speed	Direction	Date	Clear, 0-3	Partly cloudy, 4-7	Cloudy, 8-10	Sky cover, tenths (sunrise to sunset)	Possible sunshine
	M.	Mb.	Mb	C.	C.	C.	C.	C.		C.				C	%	Mm.	Mm.	Mm			Mm	Mm.	M p.s.		M.p.s.							%
UTAH																																
WENDOVER	1291	871.0		31.7	17.2	24.5	-0.6	36.7	16+	10.6	31+	19	0			1	- 8	1	2	5	0	0						22	8	1	2.0	
VERMONT																																
BURLINGTON	101	1001.2	1015.8	24.4	12.8	18.6	-1.5	30.6	31	6.1	19	0	0	13.9	75	88	2	41	13	6	0	0	3.0	S	11.2	NW	21	7	11	13	6.3	57
VIRGINIA																																
LYNCHBURG	289	992.3		28.3	17.2	23.0	-0.8	34.4	21	12.8	11	3	0			61	- 51	23	8	6	0	0	2.9		12.5	N	21	7	15	9	5.4	66
NORFOLK	8	1015.5	1016.9	28.3	20.6	24.4	-0.8	35.0	21	16.1	19+	3	0	20.0	78	104	- 48	47	8	4	0	0	3.8	ENE	12.1	SE	27+	7	16	8	5.3	70
RICHMOND	49	1010.6	1016.9	30.0	17.2	23.7	-1.1	35.6	21+	12.8	24+	8	0	18.9	78	60	- 81	25	9	4	0	0	2.9	N	13.4	NW	21	6	15	10	6.0	70
ROANOKE	358	975.8	1017.6	30.0	17.2	23.6	-0.6	35.6	21+	11.1	11	7	0	16.7	70	90	- 27	27	9	7	0	0	3.0	SE	11.2*	NE	21	9	16	6	5.2	
WASHINGTON																																
OLYMPIA	58	1010.8	1017.9	23.3	10.0	16.7	-0.8	30.0	15	4.4	30+	0	0	11.7	75	81	58	31	14	0	0	0	2.9	SW	9.4*	SW	27	7	11	13	6.5	
SEATTLE TACOMA	122	1003.4	1017.5	21.7	11.7	16.7	-0.6	28.9	15	8.3	27	0	0	11.7	76	50	26	17	12	0	0	0	3.9	SW	10.3*	SW	27+	8	8	15	6.2	
SEATTLE	4		1017.3											11.1	67								2.3	SSE								
SEATTLE U	4			22.2	13.9	18.3	-0.1	31.7	15	11.1	27	0	0			36	17	11	12		0	0			11.2	S	20+					51
SPOKANE	718	946.8	1014.8	25.6	11.1	18.6	-1.2	34.4	15	4.4	27	3	0	6.1	48	16	6	8	4	3	0	0	3.8	SW	12.5	SW	4	12	7	12	5.0	73
STAMPEDE PASS R	1206	882.2		16.1	7.8	11.7	-1.4	24.4	15	3.3	26	0	0			94	42	30	15	1	0	0						9	4	18	6.7	
TATOOSH ISLAND	31	1014.9	1017.8	16.1	11.1	13.4	0.1	20.0	14	8.3	30+	0	0	12.2	93	121	71	23	16	0	0	0	5.5	S	14.8	SW	16	3	6	22	8.1	32
WALLA WALLA U	289	979.0		27.8	15.6	21.6	-1.6	35.0	1	10.0	29	6	0			10	3	8	4	2	0	0	2.1	W$	11.6	NW	3	15	7	9	4.5	76
YAKIMA	323	976.3	1014.7	27.8	10.0	18.9	-1.4	35.0	15+	6.7	27+	5	0	8.3	53	8	3	4	4	2	0	0	3.1	W	10.7*	WNW	12	14	9	8	4.3	
WEST INDIES																																
SAN JUAN P.R.	5	1012.9	1015.9	31.1	23.3	27.4	0.2	32.8	31+	22.2	23+	8	0	22.8	80	177	- 4	37	21	4	0	0	3.3	ENE	11.2	E	20+	1	22	8	6.4	62
SWAN ISLAND	9	1011.6		31.1	25.6	28.6	0.2	32.2	7+	22.8	18	2	0			47	- 46	12	9	5	0	0						4	16	11	6.2	
WEST VIRGINIA																																
CHARLESTON	286	981.5	1016.6	30.0	17.2	23.6	0.6	35.0	20	11.7	11	8	0	17.8	75	49	- 51	28	7	5	0	0	2.0	S	13.0*	W	6	7	16	8	5.3	
ELKINS	600	949.4	1018.1	26.7	12.2	19.6		31.7	20	6.7	19	0	0	14.4	78	57		21	8	8	0	0	2.1	WNW	11.6*	NW	8	6	13	12	6.1	
HUNTINGTON U	252	986.7	1016.7	28.9	15.6	22.4	-2.1	35.6	20	10.0	19	4	0	17.2	76	17	- 66	14	4	5	0	0	2.1	SSW	10.3*	WNW	5	9	15	7	5.0	
PARKERSBURG U	187			30.0	16.7	23.4	-0.1	36.7	20	10.0	18	5	0			44	- 52	38	6	6	0	0	2.5		11.2	SW	6					76
WISCONSIN																																
GREEN BAY	205	992.5	1015.1	27.2	13.9	20.6	0.6	32.2	28+	7.2	17	2	0	15.0	74	73	3	23	11	7	0	0	2.5	SW	11.2	NW	7	11	12	8	5.1	67
LA CROSSE	199	990.5		27.2	15.6	21.4	-0.6	33.3	19	9.4	14	3	0	15.0	72	182	115	100	9	6	0	0	4.0	S	23.7*	WNW	29	12	11	8	5.5	
MADISON	262	980.3	1015.2	28.3	13.9	21.0	0.2	33.9	23	6.1	18	1	0	15.0	71	52	- 34	25	6	5	0	0	3.6	S	14.3	W	29	8	14	9	5.3	69
MILWAUKEE	205	990.9	1015.8	26.7	14.4	20.5	0.6	33.9	19	6.7	18	2	0	15.0	72	50	- 27	35	5	2	0	0	3.4	SW	16.5	SW	20	14	8	9	4.8	73
WYOMING																																
CASPER	1621	839.5	1013.7	[illegible]	11.1	19.8	-1.3	33.9	14	2.2	28	9	0	2.2	38	[illegible]	- 12	2	7	8	0	0	4.6	WSW	21.5*	W	27	19	[illegible]	[illegible]	3.1	
CHEYENNE	1867	816.5	1014.6	[illegible]	10.6	19.6	0.1	34.4	14	4.4	31	5	0	5.0	45	10	- 26	5	8	12	0	0	5.0	WNW	17.9	W	6	13	[illegible]	9	4.4	70
LANDER	1696	837.1	[illegible]	[illegible]	[illegible]	19.8	-0.6	34.4	14	1.7	31	8	0	2.2	36	1	- 11	1	2	3	0	0	[illegible]	W	25.0	W	7	18	11	2	3.5	90
SHERIDAN	1202	885.2	[illegible]	[illegible]	[illegible]	19.1	-1.5	37.2	4	2.8	28	10	0	5.7	49	28	5	12	[illegible]	7	0	0	2.6	WNW	18.8	W	17	16	8	7	4.1	76

Data from airport unless otherwise specified. U indicates Urban, R indicates Rural sites.
* Value entered in column headed "Fastest Mile" is the highest observed wind speed. This station is not equipped with an automatic recording wind instrument.
A Maximum hourly average.
+ And also on an earlier date or dates.
⊙ Station pressures apply to elevations shown in the "Elevations - Station Pressure" table of the annual issue of this publication.
B Number of days maximum 21.1 C. or above for Alaskan Stations.
$ Wind direction to 8 compass points only.
Y Peak Gust.

Data in this table is obtained by conversion from data in the English Units table.

HEATING DEGREE DAYS

(Base 65°F.)

AUGUST 1962

State and station	Current season		Normals
	This month	Period July through this month	July through this month
ALABAMA			
Birmingham	0	0	0
Huntsville	0	0	0
Mobile	0	0	0
Montgomery	0	0	0
ALASKA			
Anchorage	249	446	536
Annette	181	350	480
Barrow	691	1449	1643
Barter Island	730	1506	1510
Bethel	374	560	713
Cold Bay	392	810	899
Cordova	337	690	757
Fairbanks	223	309	503
Juneau	305	555	639
King Salmon	327	563	635
Kotzebue	347	641	827
McGrath	318	417	546
Nome	428	702	977
St. Paul	536	1097	1144
Shemya	503	1005	1052
Yakutat	312	669	685
ARIZONA			
Flagstaff	38	70	96
Phoenix (U)	0	0	
Phoenix	0	0	0
Prescott	0	0	0
Tucson	0	0	0
Winslow	0	0	0
Yuma	0	0	0
ARKANSAS			
Ft. Smith	0	0	0
Little Rock	0	0	0
Texarkana	0	0	0
CALIFORNIA			
Bakersfield	0	0	0
Bishop	0	2	0
Blue Canyon	58	75	65
Burbank	0	0	0
Eureka (U)	219	558	527
Fresno	0	0	0
Long Beach	0	0	0
Los Angeles (U)	0	0	0
Los Angeles	0	2	50
Mt. Shasta (R)	51	69	59
Oakland	38	132	103
Point Arguello (R)	188	442	388
Red Bluff	0	0	0
Sacramento (U)	0	0	0
Sacramento	0	0	0
Sandberg (R)	2	5	0
San Diego	0	0	0
San Francisco (U)	157	427	366
San Francisco	57	200	159
San Jose (U)	3	8	
Santa Maria	91	227	192
COLORADO			
Alamosa	101	168	164
Colorado Springs	11	17	47
Denver	19	19	9
Grand Junction	0	0	0
Pueblo	0	0	0
CONNECTICUT			
Bridgeport	11	13	0
Hartford	20	23	12
Middletown	46	71	
New Haven	15	19	12
DELAWARE			
Wilmington	4	4	0
DIST. OF COLUMBIA			
Washington (U)	0	0	
Washington	0	0	0
FLORIDA			
Apalachicola (U)	0	0	0
Daytona Beach	0	0	0
Fort Myers	0	0	0
Jacksonville	0	0	0
Key West	0	0	0
Lakeland (U)	0	0	0
Miami	0	0	0
Miami Beach	0	0	0
Orlando	0	0	0
Pensacola (U)	0	0	0
Tallahassee	0	0	0
Tampa	0	0	0
West Palm Beach	0	0	0
GEORGIA			
Athens	0	0	0
Atlanta	0	0	0
Augusta	0	0	0
Columbus	0	0	0
Macon	0	0	0
Rome	0	0	0
Savannah	0	0	0
Thomasville (U)	0	0	0
IDAHO			
Boise	32	40	0
Idaho Falls 46W (R)	87	121	50
IDAHO (Cont'd.)			
Idaho Falls 42NW(R)	90	117	56
Lewiston	24	46	0
Pocatello	48	60	6
ILLINOIS			
Cairo (U)	0	0	0
Chicago (Midway)	1	2	0
Chicago (O'Hare)	1	7	
Moline	1	9	9
Peoria	0	4	6
Rockford	1	15	15
Springfield	2	4	0
INDIANA			
Evansville	0	0	0
Ft. Wayne	7	9	9
Indianapolis	2	5	0
South Bend	8	18	6
IOWA			
Burlington	0	2	0
Des Moines	0	0	6
Dubuque	2	25	43
Sioux City	0	6	12
Waterloo	7	23	31
KANSAS			
Concordia (U)	0	0	0
Dodge City	0	0	0
Goodland	2	2	6
Topeka	0	0	0
Wichita	0	0	0
KENTUCKY			
Lexington	0	0	0
Louisville	0	0	0
LOUISIANA			
Alexandria	0	0	
Baton Rouge	0	0	0
Lake Charles	0	0	0
New Orleans (Audubon Park)	0	0	
New Orleans	0	0	0
Shreveport	0	0	0
MAINE			
Caribou	115	266	193
Greenville (U)	116	296	
Portland	52	120	65
MARYLAND			
Baltimore (U)	0	0	0
Baltimore	0	0	0
Frederick	2	4	0
MASSACHUSETTS			
Blue Hill Obs. (R)	30	59	22
Boston	13	19	9
Nantucket	32	60	44
Pittsfield	69	133	84
Worcester	48	83	40
MICHIGAN			
Alpena	82	154	143
Detroit (City AP)	0	1	0
Detroit (M. Wayne Co.)	10	18	9
Detroit (Willow Run)	3	4	0
Escanaba (U)	63	115	146
Flint	29	51	31
Grand Rapids	7	17	37
Lansing	14	29	28
Marquette (U)	96	192	140
Muskegon	13	20	62
S. Ste. Marie	90	179	227
MINNESOTA			
Duluth	121	253	164
Internat. Falls	87	163	183
Minneapolis	15	42	47
Rochester	19	50	59
St. Cloud	22	51	75
MISSISSIPPI			
Jackson	0	0	0
Meridian	0	0	0
Vicksburg (U)	0	0	0
MISSOURI			
Columbia	0	0	0
Kansas City	0	0	0
St. Joseph	0	0	6
St. Louis (RFC)	0	0	0
St. Louis	0	0	0
Springfield	0	0	0
MONTANA			
Billings	46	50	37
Butte	207	370	
Glasgow	43	66	78
Great Falls	57	112	69
Havre	49	90	81
Helena	77	135	90
Kalispell	120	239	149
Miles City	39	49	12
Missoula	104	187	108
NEBRASKA			
Grand Island	0	10	0
Lincoln (U)	0	0	6
Norfolk	3	8	9
North Platte	4	7	6
Omaha	0	0	6
Omaha N. Omaha AP	0	0	25
Scottsbluff	32	35	0
Valentine	15	24	21
NEVADA			
Elko	63	86	43
Ely	49	78	71
Las Vegas	0	0	0
Reno	110	117	114
Tonopah	0	3	
Winnemucca	48	54	34
NEW HAMPSHIRE			
Concord	30	61	56
Mt. Washington Obs. (R)	495	1143	1029
NEW JERSEY			
Atlantic City	2	2	0
Atlantic City (U)	0	0	
Newark	7	7	0
Trenton (U)	9	9	0
NEW MEXICO			
Albuquerque	0	0	0
Clayton	0	0	6
Raton	5	11	37
Roswell	0	0	0
Silver City	0	0	
NEW YORK			
Albany	23	29	19
Binghamton	39	60	65
Buffalo	26	35	56
New York (U)	10	11	0
New York (LaGuardia)	7	7	0
Rochester	21	31	40
Schenectady	21	24	
Syracuse	16	22	34
NORTH CAROLINA			
Asheville (U)	0	0	0
Cape Hatteras (R)	0	0	0
Charlotte	0	0	0
Greensboro	0	0	0
Raleigh	0	0	0
Wilmington	0	0	0
Winston-Salem	0	0	0
NORTH DAKOTA			
Bismarck	28	50	50
Devils Lake (U)	33	66	93
Fargo	5	16	65
Grand Forks CAA	29	52	
Pembina	34	53	
Williston (U)	44	89	71
OHIO			
Akron	10	21	22
Cincinnati (U)	0	0	
Cincinnati	0	2	0
Cincinnati Obs.	2	2	0
Cleveland	17	27	34
Columbus	3	11	6
Columbus (U)	0	2	
Dayton	4	9	6
Mansfield	11	20	31
Sandusky (U)	4	4	6
Toledo	2	3	16
Youngstown	23	41	19
OKLAHOMA			
Oklahoma City	0	0	0
Tulsa	0	0	0
OREGON			
Astoria	133	336	304
Burns (U)	87	156	49
Eugene	45	116	68
Meacham	208	392	208
Medford	11	24	0
Pendleton	16	31	0
Portland (U)	20	67	28
Portland	24	73	53
Roseburg	15	39	38
Salem	49	140	56
Sexton Summit (R)	163	288	168
PENNSYLVANIA			
Allentown	7	8	0
Erie	27	34	25
Harrisburg	3	3	0
Philadelphia (U)	7	7	
Philadelphia	4	4	0
Pittsburgh (U)	0	0	0
Pittsburgh	12	23	9
Reading (U)	4	4	0
Scranton	10	13	28
Williamsport	7	8	9
RHODE ISLAND			
Block Island	11	22	16
RHODE ISLAND (Cont'd.)			
Providence	14	26	16
SOUTH CAROLINA			
Charleston (U)	0	0	0
Charleston	0	0	0
Columbia	0	0	0
Florence	0	0	0
Greenville	0	0	0
Spartanburg	0	0	0
SOUTH DAKOTA			
Huron	13	33	21
Pierre	4	13	
Rapid City	36	40	34
Sioux Falls	5	23	44
TENNESSEE			
Bristol	0	1	0
Chattanooga	0	0	0
Knoxville	0	0	0
Memphis (U)	0	0	0
Memphis	0	0	0
Nashville	0	0	0
Oak Ridge	0	0	0
TEXAS			
Abilene	0	0	0
Amarillo	0	0	0
Austin	0	0	0
Brownsville	0	0	0
Corpus Christi	0	0	0
Dallas	0	0	0
Del Rio (U)	0	0	
El Paso	0	0	0
Ft. Worth	0	0	0
Galveston (U)	0	0	0
Galveston	0	0	0
Houston (U)	0	0	0
Houston	0	0	0
Laredo	0	0	0
Lubbock	0	0	0
Midland	0	0	0
Port Arthur	0	0	0
San Angelo	0	0	0
San Antonio	0	0	0
Victoria	0	0	0
Waco	0	0	0
Wichita Falls	0	0	0
UTAH			
Milford	12	16	0
Salt Lake City	17	20	0
Wendover	2	2	0
VERMONT			
Burlington	54	125	59
VIRGINIA			
Lynchburg	0	1	0
Norfolk	0	0	0
Richmond	0	0	0
Roanoke	0	0	0
WASHINGTON			
Olympia	98	243	139
Seattle (U)	41	108	97
Seattle	42	103	74
Seattle-Tacoma	100	195	155
Spokane	65	125	53
Stampede Pass (R)	362	692	564
Tatoosh Island (R)	269	603	574
Walla Walla	15	28	
Walla Walla (U)	10	20	0
Yakima	38	90	12
WEST VIRGINIA			
Charleston	0	3	0
Huntington (U)	0	7	0
Parkersburg (U)	0	0	0
WISCONSIN			
Green Bay	18	42	90
La Crosse	4	22	31
Madison	11	34	65
Milwaukee	22	46	90
WYOMING			
Casper	57	76	22
Cheyenne	57	97	65
Lander	58	77	25
Sheridan	81	107	56

Data from airport unless otherwise specified.
U indicates Urban, R indicates Rural, sites.

HURRICANE ALMA

August 26-September 2, 1962

Hurricane Alma, the first tropical cyclone of the 1962 season, developed from an easterly wave which had been under observation for several days. This disturbance which was located over the western Bahamas on the 26th drifted northward along the east coast of Florida and during the forenoon of the 27th was located some 100 miles east of Jacksonville, Fla., where the first signs of intensification were detected. During the afternoon of the 27th vessels reported winds of 45 m. p. h. in squalls and the first tropical storm advisory was issued.

The storm moved northeastward and during the morning of the 28th passed over the extreme eastern portion of the North Carolina Outer Banks. As it reached a position east of Hatteras, winds had increased gradually in intensity and to the east of the center were estimated at about 45 m. p. h. Onshore, to the west of the center, maximum winds were generally lower, although a gust of 48 m. p. h. was observed at Hatteras and one of 53 m. p. h. was reported at Nags Head, N. C.

Moving northeastward at a forward speed of about 15 m. p. h., the center passed east of the Virginia Capes area during the early afternoon of the 28th. The highest sustained wind velocity reported for the Hampton Roads area was 36 m. p. h. from the north-northeast at Cape Henry, Va. While over 8 inches of rain had fallen at Cape Hatteras in a period of 24 hours, Norfolk Airport reported only a little over one-half inch during passage of the storm. Tides, in general, were about 2 feet above normal in the Hatteras-Norfolk area with the highest, 2 to 3 feet, reported at Nags Head, N. C.

After moving seaward from the area of the Capes, the storm increased in intensity and, during the afternoon of the 28th, aircraft reconnaissance reports indicated the winds had reached hurricane force over a small area near the storm center. A maximum wind speed of 92 m. p. h. was reported. Because of the distance at sea of the storm center, no unusually strong winds occurred along the New Jersey coast.

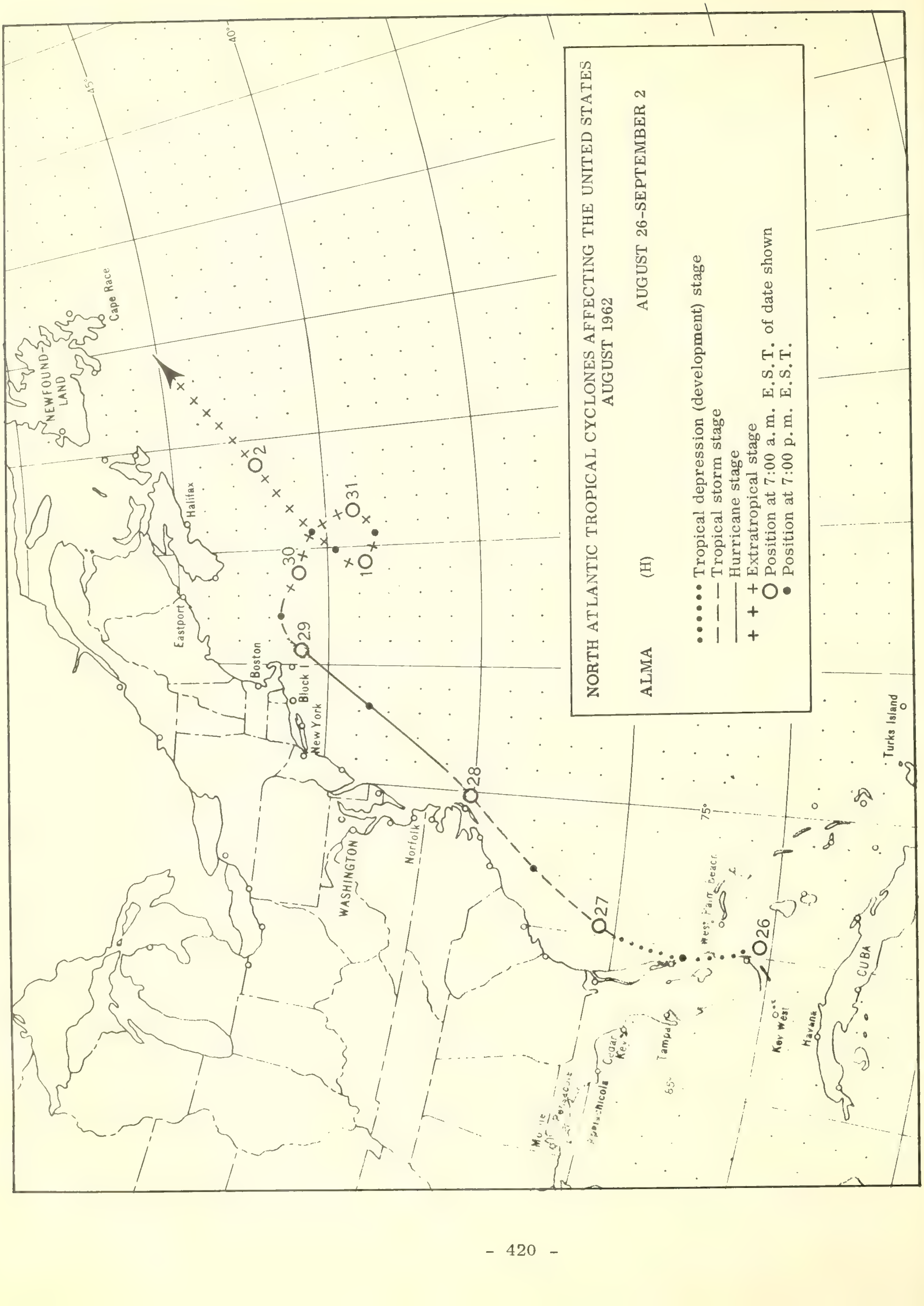
Alma began to dissipate at about the time the center passed some 60 miles east of Nantucket. No damaging winds occurred on Long Island or along the New England coast, although a vessel near the storm center did report winds estimated at 50 to 60 m. p. h. Sustained winds along the outer reaches of Cape Cod did not exceed about 40 m. p. h. with gusts no greater than 55 m. p. h.

During the afternoon of the 29th the center began to fill, the forward progress slowed, and the storm no longer exhibited tropical characteristics. The greatest effect of Alma in New England came from heavy rains of 2 inches or more which were common in most areas and higher amounts ranging to 6 inches which fell over restricted areas of the southeastern New England States.

TROPICAL CYCLONE DATA
HURRICANE ALMA
August 26-September 2, 1962

Station	Date	Pressure (inches)		Wind (miles per hour)				Highest Tide (feet) #	Time+	Storm Rainfall (inches)	Remarks
		Low	Time+	Fastest Mile	Time+	Gusts	Time+				
SOUTH CAROLINA											
Columbia (WBAS)	26			20 ENE	1700					0.26	Radar showed spiral bands moving into eastern South Carolina during the afternoon of the 27th, but they disintergrated as they moved inland.
	27	29.85	1800								
Charleston	26			29 E	2306			6.5†	2300	3.67	Local flooding from excessive rainfall.
	27	29.80	1730								
NORTH CAROLINA											
Cherry Point	28			20 NNE	0600	28 NNE	0500				
Hatteras	28	29.44	0605	40 NNE	0610	48 NNW	0612	2		8.11	Thunderstorm occurred 0545 to 0740 on the 28th. No flooding reported. No deaths or injuries. Property damage minor.
Nags Head	28					53 NNE		2-3			No flooding and only slight beach erosion.
New Bern	28			15 NNE	0500					1.68	
Wilmington	28	29.69	0250	25 N	0155	32 N	0155	2		3.24	No deaths or injuries reported.
VIRGINIA											
Cape Henry	28	29.74	1000	36 NNE	0850						
Norfolk (WBAS)	28	29.75	1146	22 N	0830	31	0820			0.64	The eye of the storm passed about 70 miles ESE of the Virginia Capes about 1000 on the 28th.
NEW JERSEY											
Atlantic City(WBAS	29			17 NW						2.81	
RHODE ISLAND											
Providence	29	29.62		33 NNW		42 NNW				1.53	Ten foot waves buffeted the Rhode Island shores. Little damage.
MASSACHUSETTS											
Boston	29	29.64		37 N		51 N				2.04	Minor damage. Rains beneficial.
Nantucket	29	29.36		37 NW		48 N				3.11	
MAINE											
Portland	29			30 NE		39 N				0.66	

+Eastern Standard Time
#Above Normal
† Above Mean Low Water



NORTH ATLANTIC TROPICAL CYCLONES AFFECTING THE UNITED STATES
AUGUST 1962

ALMA (H) AUGUST 26-SEPTEMBER 2

STORM SUMMARY

STATE	TORNADOES					HAILSTORMS				WINDSTORMS				LIGHTNING				‡ HEAVY SNOWSTORMS AND BLIZZARDS				# ICE STORMS				∅ ALL OTHER			
								† DAMAGE				† DAMAGE				† DAMAGE				† DAMAGE				† DAMAGE				† DAMAGE	
	NUMBER	DAYS	DEATHS	INJURIES	† DAMAGE	DEATHS	INJURIES	PROP-ERTY	CROPS	DEATHS	INJURIES	PROP-ERTY	CROPS	DEATHS	INJURIES	PROP-ERTY	CROPS	DEATHS	INJURIES	PROP-ERTY	CROPS	DEATHS	INJURIES	PROP-ERTY	CROPS	DEATHS	INJURIES	PROP-ERTY	CROPS
Alabama										1	2	5	4	4	1	5	0												
Alaska										0	0	5	0																
Arizona														2	0	3	0												
Arkansas						0	0	3	4	0	5	4	0	0	2	0	0												
California										0	1	5	3	1	3	4	4												
Colorado	2	1	0	0	0	0	0	0	5	0	0	0	3	0	0	5	0									0	0	4	4
Connecticut						0	0	0	6	0	0	0	5	0	1	0	0									0	0	4	0
Delaware *																													
Florida	1	1	0	0	0					1	0	0	0	3	4	0	0												
Georgia						0	0	0	3	0	1	5	0	0	0	5	0												
Hawaii *																													
Idaho						0	0		9	0	0	3		0	1	4													
Illinois *																													
Indiana														2	0	4	0												
Iowa						0	0	5	5	0	0	5	4	1	0	4	0									0	0	5	6
Kansas	8	1		3	5			4	5						2	4													
Kentucky *																													
Louisiana	2	1	2	30	5					0	0	?	3	0	0	5	0									0	0	?	?
Maine	1	1	0	0	3	0	0	0	4	0	0	4	0	0	1	4	0									0	0	4	0
Maryland						0	0	2	4	0	0	4	2	0	0	4	0									0	1	5	2
Massachusetts										0	0	5	0	0	7	4	0									0	0	5	0
Michigan	1	1	0	0	4	0	0	4	6	4	2	5	5	2	3	5	0												
Minnesota						0	0	5	3	0	0	5	5	0	1	0	0												
Mississippi										0	0	3	0													0	0	?	?
Missouri						0	0	4	5	3	9	4	0	0	1	4	0												
Montana	2	2	0	0	5	0	0	0	5	0	0	5	0																
Nebraska	2	2	0	0	3	0	0	5	6	0	0	5	5	0	1	4	0												
Nevada *																													
New Hampshire						0	0	3	4	0	0	4	0	0	0	4	0									0	0	4	0
New Jersey	1	1	0	0	5					0	0	4	C	1	1	4	0									0	0	4	0
New Mexico														1	0	0	0												
New York										1		4			1	5												4	
North Carolina						0	0	3	6	0	0	5	4	0	4	5	0												
North Dakota	4	4	0	0	4	0	0	3	4	0	0	4	0													3	0	6	0
Ohio	1	1	4	20	6	0	1	6	6	0	1	5	5																
Oklahoma	3	3	0	0	4	0	0	2	?					0	0	4	0												
Oregon *																													
Pennsylvania						0	0	3	0	0	2	5	0	1	0	5	0												
Puerto Rico																										0	0	4	
Rhode Island *																													
South Carolina	1	1	0	0	4	0	0	0	3					0	0	3	0												
South Dakota	3	3	0	?	5	0	?	4	6	0	?	6	4	0	0	?	?												
Tennessee						0	0	0	5	0	4	6	5	0	5	5	0												
Texas	14	10	0	0	3	0	0	?	?	1	3	3	0	7	5	?	0									0	0	5	0
Utah														1	0	0	0												
Vermont						0	0	0	3	0	0	4	0	0	0	4	0									0	0	5	4
U.S. Virgin Is.*																													
Virginia	1	1	0	0	5	0	0	0	5																				
Washington *																													
West Virginia *																													
Wisconsin	1	1	0	0	4	0	1	5	5	0	0	5	5	0	3	5	0												
Wyoming						0	0	’4	C																				

* No occurrence of storms or unusual weather phenomena.
‡ Includes heavy sleet storm.
# Freezing drizzle and freezing rain, commonly known as glaze.
∅ For breakdown of "All Others", and for detailed listing of other storms, see the U. S. Weather Bureau monthly publication STORM DATA.
’ Includes Crop Damage
C Crop Damage

† Storm damages are placed in categories varying from 1 to 9 as follows:

1	Less than $50
2	$50 to $500
3	$500 to $5,000
4	$5,000 to $50,000
5	$50,000 to $500,000
6	$500,000 to $5,000,000
7	$5,000,000 to $50,000,000
8	$50,000,000 to $500,000,000
9	$500,000,000 to $5,000,000,000

GENERAL SUMMARY OF RIVER AND FLOOD CONDITIONS

AUGUST 1962

Heavy flood producing rains occurred in Puerto Rico from about 1 p.m. to midnight August 22, causing floods in the La Plata, Bayamon, upper tributaries of the Rio Grande de Loiza, Guamani, and the smaller streams along the southeastern coastal area. The Culebrinas River draining the northwest section of the Island rose to bankfull level, but did not flood surrounding areas. Many families were evacuated along the La Plata, Bayamon, and Valenciano Rivers.

Flooding reported in continental United States was mostly minor.

HUDSON BAY DRAINAGE

A rise occurred on the Red River of the North for the fifth consecutive month. Flooding was light and confined to the Moorhead, Minn., area. The rise was due to 4-inch rains in the upper basin on August 14.

ATLANTIC SLOPE DRAINAGE

Minor flooding occurred along the North Fork of the Edisto River in the vicinity of Orangeburg, S. C., on August 1 and 2. This rise was due to locally heavy rains of from 1 1/4 to 2 1/4 inches on July 30 to 31.

MISSISSIPPI SYSTEM

Upper Mississippi Basin.--The minor flooding on the Root River at Hokah, Minn., and on the Iowa River at Dorchester, Iowa, was due to heavy rain that began late on July 29 over the southeast quarter of Minnesota and north-central and northeast Iowa. Synoptic conditions were such that this system remained over this area for approximately 36 hours. The rainfall was fairly well spaced except for several hours of excessive rainfall. Storm rainfall ranged from 2 to over 6 inches throughout the Root River Basin.

Missouri Basin.--Locally heavy rains fell over parts of northwestern Iowa and eastern Nebraska during the morning of the 31st. Rains in eastern Nebraska ranged from 1 to 3 inches, and over a large portion of the upper reaches of the Little Sioux River in Iowa, they averaged from 2 to 5 inches. The heaviest rains occurred in the Ida Grove area, with a total of 11.05 inches in 24 hours. The water rose quickly on Odebolt Creek and remained high for 2 days. On Badger Creek, the water rose quickly and receded quickly. Highway routes 59 and 175 had about 1 foot of water for 1 day, and some lowlands and farm areas reported pools for 2 days. In Ida Grove, some people were evacuated as some basement walls collapsed due to high water. Some lowlands were flooded upstream from Mapleton, Iowa, in the area not protected by dikes.

Minor flooding occurred along small creeks in the Kansas River Basin in Nebraska and Kansas due to locally heavy thunderstorms. Rain periods were well distributed and in most cases very little runoff occurred due to the dry soil. The most general rain occurred on the 24th, with amounts ranging up to 4.50 inches at Onaga and 4.67 inches at Lindsborg, Kans. Losses were negligible.

Arkansas Basin.--Locally heavy rains in the upper reaches of the South Canadian River in western Kansas on August 1 caused some minor flooding in agricultural areas of western Texas. The river crested 1 foot above flood stage at Canadian, Tex., on August 1. The crest downstream was near but not above flood stage on the 2d and 3d, with only minor overflows that resulted in negligible damage to agricultural areas.

WEST GULF OF MEXICO DRAINAGE

The flooding on the Calcasieu River at Old Town Bay, La., on the 30th and 31st was due to torrential rains that fell over the lower Calcasieu on the evening of the 28th and early morning of the 29th. The heaviest rains occurred over the area from Lake Charles southward and southwestward to the coast. The greatest amount reported was 22 inches for the 24 hours ending at 7 a.m. on the 29th at the Sabine National Wildlife Refuge, 8 miles south-southwest of Hackberry, La. This station also reported 1.26 inches for the 24 hours preceding the heavy rains and 1.14 inches during the 24 hours following. At Lake Charles, La., the 24-hour amount of 14.10 inches from 12 noon on the 28th to 12 noon on the 29th is the greatest of record for August, and has been exceeded only once, in June 1947. The excessive rate began near 10:00 p.m. on the 28th and continued up to 4:00 a.m. on the 29th. During this 6-hour period, 11.45 inches occurred. New records were also established for 1, 2, 3, 6, and 12 hours. Streets and the lower sections of Lake Charles were flooded by rain to depths of 12 to 18 inches. The entire town of Cameron, La., along the coast was flooded by rainwater to depths of 2 to 3 feet. The Calcasieu River rose about 3 feet at that point, but the river remained within banks. The flooding at Old Town Bay did not cause any damage. Some roads, yards, and lowlands in that area were flooded.

The flood crest from the late July rains continued on the Trinity River in the lower portions during the first 3 days of August. Flash flooding began on Fossil Creek in the eastern portion of Tarrant County, in the early morning of August 2. This was the second flood in this area within 6 days. Flood damage was limited to the southwest portion of Richland Hills and southeast Haltom City. There was only minor flooding along the Trinity, with this crest reaching one-half foot above flood stage at Dallas. This flooding was due to heavy rain up to 4 inches in the eastern portion of Tarrant County. There was considerable damage to residential and public property in the lower sections of Richland Hills and Haltom City. No appreciable damage was reported along the Trinity.

FLOOD STAGE DATA

(All dates in August unless otherwise specified)

River and station	Flood stage	Above flood stages -dates		Crest*	
		From—	To—	Stage	Date
	Ft.			Ft.	
HUDSON BAY DRAINAGE					
Red River of the North Basin					
Red River of the North. Moorhead, Minn.	17	12	17	17.7	14
ATLANTIC SLOPE DRAINAGE					
North Fork Edisto: Orangeburg, S. C.	8	1	2	8.4	1
MISSISSIPPI SYSTEM					
Upper Mississippi Basin					
Root: Hokah, Minn.	17	31	Sep. 2	47.2	31
				48.2	Sep. 2
Iowa: Dorchester, Iowa	14	31	Sep. 2	15.05	31
				15.5	Sep. 1
				14.65	Sep. 2
Missouri Basin					
Maple: Ida Grove, Iowa	12			#15.4	31
Mapleton, Iowa	12			#14.5	31
Frenchmens Creek, Palisade, Nebr.	7	31	Sep. 1	*8.2	31
				*8.1	31
		Sep. 1	Sep. 2	*8.0	Sep. 2
MISSISSIPPI SYSTEM (Cont'd.)					
Missouri Basin (Cont'd.)					
Maple (Cont'd.): Stratton, Nebr.	8	31	Sep. 1	*9.4	Sep. 1
Solomon: Osborne, Kans.	14	15	15	*14.0	15
Turkey Creek, Gypsum, Kans.	15	24	24	*18.35	24
Rock Creek, Louisville, Kans.	15	4	5	*27.4	5
Arkansas Basin					
South Canadian: Canadian, Tex.	8	1	1	#9.0	1
WEST GULF OF MEXICO DRAINAGE					
Calcasieu: Old Town Bay, La.	4	30	31	4.8	30
Trinity: Dallas, Tex.	30	3	3	30.5	3
Rosser, Tex.	26	Jul. 28	1	30.5	Jul. 30
Trinidad, Tex.	28	2	4	29.2	3

* Provisional
# Highest Stage Observed

RAWINSONDE DATA

Average monthly values

ALBANY, N. Y.
1007 MB

Standard pressure surface (mb)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind	
					Direction	Speed
SURFACE	31	86	16.4	90	226	1.7
1000	31	141	16.0	88	224	1.9
950	31	577	16.1	78	270	3.9
900	31	1,038	14.0	74	287	6.6
850	31	1,518	11.4	71	284	6.6
800	31	2,024	9.7	59	276	9.5
750	31	2,556	7.5	48	275	11.9
700	31	3,125	5.0	42	275	12.8
650	31	3,721	1.3	46	275	14.0
600	31	4,367	-2.3	41	276	15.5
550	31	5,046	-6.2		274	18.5
500	31	5,793	-11.2		271	20.4
450	31	6,587	-16.5		265	22.0
400	31	7,471	-22.5		264	21.4
350	31	8,438	-29.6		259	23.1
300	31	9,521	-37.7		258	24.7
250	31	10,756	-46.7		266	29.0
200	31	12,209	-54.0		271	32.1
175	31	13,063	-55.8		267	32.4
150	31	14,040	-58.0		269	29.0
125	31	15,183	-60.3		270	23.9
100	30	16,572	-60.8		267	17.1
80	30	17,966	-58.4		268	8.0
70	30	18,809	-57.1		254	3.1
60	30	19,787	-55.4		92	1.0
50	30	20,954	-53.8		93	6.2
40	29	22,392	-52.2		95	9.5
30	28	24,265	-49.6		87	13.2
25	27	25,460	-48.2		92	14.8
20	21	26,932	-46.2		88	15.3
15	15	28,848	-42.5			
10						
7						

ALBUQUERQUE, N. MEX.
842 MB

Standard pressure surface (mb)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind	
					Direction	Speed
SURFACE	31	1,619	18.3	44	86	2.1
1000	31	109				
950	31	560				
900	31	1,032				
850	31	1,532				
800	31	2,056	20.2	35	200	3.3
750	31	2,602	16.6	37	260	4.9
700	31	3,193	12.3	40	275	8.4
650	31	3,802	7.4	45	267	7.8
600	31	4,463	2.0	51	269	7.8
550	31	5,149	-3.5	56	256	6.0
500	31	5,906	-8.5	45	261	7.2
450	31	6,709	-13.5	35	255	8.9
400	31	7,603	-19.5		263	10.1
350	31	8,582	-26.3		257	12.2
300	30	9,677	-34.2		261	15.7
250	30	10,928	-43.6		263	18.5
200	30	12,394	-54.2		266	20.2
175	30	13,239	-60.0		267	19.8
150	30	14,188	-65.5		261	15.9
125	30	15,284	-70.3		266	11.5
100	30	16,608	-69.9		268	4.1
80	30	17,949	-65.8		67	3.1
70	30	18,769	-62.9		85	7.8
60	30	19,722	-60.0		94	14.0
50	30	20,867	-57.5		94	17.3
40	29	22,282	-55.1		90	19.8
30	27	24,132	-52.1		87	23.5
25	27	25,319	-50.0		89	24.1
20	25	26,786	-47.1		87	24.1
15	22	28,698	-44.8		87	27.2
10	12	31,431	-41.4			
7						

AMARILLO, TEXAS
894 MB

Standard pressure surface (mb)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind	
					Direction	Speed
SURFACE	31	1,095	19.2	70	209	4.1
1000	31	111				
950	31	561				
900	31	1,035				
850	31	1,529	22.5	42	223	16.7
800	31	2,054	19.8	38	243	13.4
750	31	2,601	16.1	34	253	10.3
700	31	3,189	11.9	35	275	6.2
650	31	3,797	7.1	39	299	5.2
600	31	4,456	1.9	42	345	3.7
550	31	5,142	-2.8	39	359	3.3
500	31	5,901	-7.8	36	306	3.3
450	31	6,705	-13.0		301	5.8
400	31	7,600	-19.3		299	8.9
350	31	8,581	-25.9		293	11.5
300	31	9,679	-34.3		289	12.6
250	31	10,929	-43.7		280	13.8
200	31	12,395	-54.1		290	15.7
175	30	13,243	-59.7		279	14.8
150	30	14,195	-64.9		282	14.2
125	29	15,295	-69.5		291	8.2
100	27	16,627	-69.2		320	1.6
80	27	17,971	-65.4		97	6.0
70	26	18,797	-62.1		96	10.1
60	26	19,753	-59.0		91	14.6
50	26	20,902	-57.0		93	18.8
40	25	22,323	-54.3		94	20.8
30	22	24,178	-51.1		89	25.3
25	21	25,369	-49.4		90	27.0
20	21	26,839	-47.1		88	26.8
15	11	28,746	-44.4			
10						
7						

ANCHORAGE, ALASKA
1009 MB

Standard pressure surface (mb)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind	
					Direction	Speed
SURFACE	31	29	12.6	84	162	3.5
1000	31	102	13.1	78	176	5.1
950	31	532	11.2	73	207	8.5
900	31	982	8.6	72	199	8.5
850	31	1,453	6.0	73	204	5.4
800	31	1,947	3.0	72	195	4.3
750	31	2,465	.0	66	202	3.5
700	31	3,017	-3.3	66	222	3.7
650	31	3,592	-6.7	59	234	5.6
600	31	4,221	-10.1	50	239	6.0
550	31	4,879	-14.2	44	247	7.2
500	31	5,604	-18.6	45	256	9.5
450	31	6,373	-23.9	43	258	9.5
400	31	7,231	-30.0	42	262	11.1
350	31	8,168	-37.1		274	13.4
300	31	9,217	-44.6		270	13.8
250	31	10,421	-50.1		283	14.6
200	31	11,876	-49.9		281	10.3
175	31	12,751	-49.4		290	6.8
150	31	13,759	-50.1		298	6.4
125	31	14,947	-51.1		276	5.6
100	31	16,396	-51.7		267	5.2
80	31	17,847	-50.9		267	5.6
70	31	18,720	-50.9		277	3.5
60	31	19,720	-50.6		278	2.1
50	31	20,908	-50.7		308	.8
40	31	22,364	-50.1		249	1.2
30	30	24,251	-48.6		344	1.9
25	29	25,454	-47.3		64	5.2
20	29	26,935	-45.8		59	5.4
15	17	28,873	-42.9		77	8.9
10	5	31,683	-37.4			
7						

ANNETTE, ALASKA
1011 MB

Standard pressure surface (mb)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind	
					Direction	Speed
SURFACE	31	37	12.7	89	136	2.5
1000	31	131	12.4	87	126	2.5
950	31	560	10.5	82	152	3.3
900	31	1,010	8.3	79	175	4.7
850	31	1,481	5.6	78	184	5.6
800	31	1,975	2.9	74	210	5.2
750	31	2,489	.2	69	222	5.1
700	31	3,047	-2.5	65	217	4.5
650	31	3,625	-5.6	59	228	3.7
600	31	4,256	-9.2	52	242	4.9
550	31	4,916	-13.2	47	258	5.1
500	31	5,645	-17.8	44	260	6.8
450	31	6,415	-23.4	43	258	8.0
400	31	7,278	-29.6	41	257	9.5
350	29	8,209	-36.8		251	10.3
300	29	9,257	-44.7		260	11.9
250	29	10,458	-50.4		272	14.8
200	28	11,903	-50.0		290	14.8
175	28	12,775	-50.2		298	14.4
150	28	13,779	-51.0		299	12.2
125	28	14,961	-52.0		289	9.3
100	27	16,406	-52.9		307	6.6
80	27	17,846	-52.6		272	3.7
70	25	18,701	-51.1		277	2.3
60	24	19,702	-52.4		9	.6
50	21	20,881	-52.4		30	2.5
40	21	22,326	-51.6		49	4.1
30	21	24,200	-49.8		69	6.0
25	21	25,396	-48.3		70	6.0
20	21	26,873	-46.0		73	6.6
15	20	28,797	-43.0		71	10.5
10	17	31,569	-37.8		84	14.2
7	7	34,060	-33.6			

ATHENS, GA.
989 MB

Standard pressure surface (mb)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind	
					Direction	Speed
SURFACE	30	246	20.1	94	13	2.1
1000	30	150				
950	30	594	22.3	74	52	3.1
900	30	1,066	20.2	69	22	1.7
850	30	1,557	16.9	70	343	2.3
800	30	2,072	13.4	70	315	3.5
750	30	2,610	10.9	57	306	4.7
700	30	3,187	7.8	47	309	5.1
650	30	3,789	4.4	44	308	5.2
600	30	4,441	.9	43	299	5.2
550	30	5,129	-3.4	39	290	4.3
500	30	5,884	-7.6		283	6.4
450	30	6,693	-12.6		276	7.6
400	30	7,588	-18.3		285	9.9
350	29	8,570	-25.4		289	13.0
300	29	9,670	-33.6		285	15.9
250	29	10,924	-43.2		281	21.4
200	29	12,389	-54.5		289	22.9
175	28	13,232	-60.0		291	20.8
150	28	14,182	-65.1		301	16.3
125	28	15,283	-68.5		310	8.9
100	28	16,618	-68.7		323	4.1
80	28	17,965	-65.3		60	8.5
70	28	18,788	-62.5		74	13.8
60	28	19,740	-60.0		79	19.8
50	28	20,885	-57.5		87	23.5
40	28	22,304	-54.6		93	25.3
30	28	24,162	-51.0		93	25.5
25	28	25,353	-49.5		90	26.2
20	26	26,820	-47.3		89	27.6
15	14	28,727	-45.2		83	32.1
10	6	31,478	-41.6			
7						
5						

BARROW, ALASKA
1008 MB

Standard pressure surface (mb)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind	
					Direction	Speed
SURFACE	31	8	4.8	96	114	2.1
1000	31	72	4.8	93	150	2.9
950	31	488	5.6	81	209	6.2
900	31	933	4.7	76	226	8.4
850	31	1,398	2.7	78	224	10.7
800	31	1,887	.3	76	224	10.5
750	31	2,399	-2.4	73	228	12.8
700	31	2,948	-5.5	71	227	14.2
650	31	3,520	-8.5	67	226	15.0
600	31	4,143	-12.1	62	228	15.7
550	31	4,796	-16.4	52	228	18.3
500	31	5,516	-21.3	47	226	17.7
450	31	6,279	-26.9	48	227	20.0
400	31	7,126	-33.2	49	219	19.8
350	31	8,052	-39.7		232	24.1
300	31	9,090	-46.8		234	27.0
250	31	10,282	-51.8		238	24.3
200	31	11,733	-49.7		236	19.8
175	31	12,609	-48.1		245	19.0
150	31	13,625	-47.9		249	18.5
125	30	14,823	-48.0		254	12.6
100	30	16,294	-47.9		255	11.1
80	30	17,766	-47.9		261	7.6
70	30	18,646	-48.0		261	7.0
60	30	19,663	-48.0		255	4.9
50	29	20,870	-48.1		296	2.1
40	29	22,339	-48.4		349	1.4
30	29	24,236	-47.3		37	2.3
25	29	25,445	-45.8		67	2.1
20	29	26,938	-44.0		80	1.2
15	28	28,873	-41.2		82	2.5
10	26	31,661	-36.2		70	3.1
7	15	34,155	-32.5		316	1.4
5	8	36,545	-29.4			

BARTER IS., ALASKA
1008 MB

Standard pressure surface (mb)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind	
					Direction	Speed
SURFACE	31	15	4.5	92	55	1.9
1000	31	80	5.9	91	52	1.0
950	31	501	8.4	82	289	.8
900	31	950	7.7	76	261	2.5
850	31	1,420	5.4	73	251	6.4
800	31	1,914	2.7	71	242	8.7
750	31	2,428	-.6	72	247	9.5
700	31	2,982	-4.0	67	246	8.5
650	31	3,556	-7.3	62	236	8.9
600	31	4,182	-11.1	59	241	10.5
550	31	4,838	-15.2	54	239	10.5
500	31	5,560	-20.0	50	245	12.0
450	31	6,319	-25.8	45	250	13.6
400	31	7,175	-32.3	42	261	13.6
350	31	8,103	-39.1		261	16.3
300	31	9,142	-46.6		261	20.2
250	31	10,333	-52.6		261	19.0
200	31	11,774	-51.2		267	19.0
175	31	12,645	-49.5		266	14.8
150	31	13,656	-49.0		267	15.7
125	31	14,852	-49.1		264	11.7
100	31	16,317	-48.5		274	11.5
80	31	17,785	-48.4		272	8.5
70	31	18,666	-48.3		275	7.6
60	31	19,679	-48.2		276	6.0
50	29	20,877	-48.1		304	4.1
40	29	22,348	-47.7		319	2.5
30	29	24,251	-46.7		344	.8
25	27	25,479	-45.2		36	2.1
20	26	26,980	-43.1		73	3.9
15	24	28,913	-40.4		41	2.3
10						
7						
5						

BETHEL, ALASKA
1006 MB

Standard pressure surface (mb)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind	
					Direction	Speed
SURFACE	31	39	9.9	93	216	6.2
1000	31	85	9.8	90	219	8.0
950	31	508	8.4	84	200	11.1
900	31	957	6.2	82	201	11.7
850	31	1,425	4.1	77	206	10.7
800	31	1,917	1.7	75	210	10.7
750	31	2,430	-.8	72	216	13.0
700	31	2,984	-3.2	67	220	13.2
650	31	3,560	-6.2	61	224	13.4
600	31	4,191	-9.7	55	228	15.0
550	31	4,855	-13.7	47	232	15.3
500	31	5,578	-18.1	47	227	16.9
450	31	6,349	-23.4	46	231	20.0
400	31	7,211	-29.6	42	238	20.4
350	31	8,150	-36.3		242	23.7
300	31	9,203	-43.4		248	27.2
250	31	10,412	-49.6		257	33.0
200	31	11,870	-50.0		259	28.0
175	31	12,744	-49.6		254	27.2
150	31	13,752	-50.2		255	23.3
125	31	14,941	-50.9		251	17.5
100	31	16,393	-51.0		254	14.0
80	31	17,847	-50.8		250	8.9
70	31	18,715	-50.8		245	7.6
60	30	19,720	-50.6		249	3.3
50	30	20,910	-50.5		240	1.9
40	29	22,363	-49.6		246	2.5
30	29	24,251	-48.3			.0
25	28	25,459	-47.3		48	2.1
20	25	26,939	-45.9		76	2.3
15	15	28,910	-43.2		96	3.3
10	6	31,745	-39.1			
7						
5						

BISMARCK, N. DAK.
954 MB

Standard pressure surface (mb)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind	
					Direction	Speed
SURFACE	31	505	13.7	81	148	.6
1000	31	105				
950	31	546	14.5	75	145	.8
900	31	1,004	18.9	53	239	9.7
850	31	1,494	16.6	47	256	9.9
800	31	2,007	13.1	48	266	11.3
750	31	2,544	9.4	45	280	12.8
700	31	3,116	5.5	43	282	16.3
650	31	3,714	1.4	43	281	20.8
600	31	4,358	-2.8	38	279	25.6
550	31	5,037	-7.1	35	277	28.8
500	31	5,779	-12.0	36	278	32.8
450	31	6,568	-17.3		274	35.4
400	31	7,450	-23.9		275	36.7
350	31	8,411	-31.1		273	37.9
300	31	9,486	-39.5		270	42.4
250	31	10,712	-47.4		266	49.0
200	31	12,164	-54.0		268	54.4
175	31	13,018	-55.4		269	53.0
150	31	13,998	-57.4		268	48.2
125	31	15,147	-58.9		274	35.9
100	31	16,547	-59.2		277	22.3
80	31	17,950	-57.6		281	8.5
70	31	18,797	-56.4		279	4.1
60	31	19,778	-54.6		317	1.6
50	31	20,950	-53.2		90	5.1
40	31	22,394	-51.3		82	8.4
30	29	24,274	-49.4		80	8.2
25	26	25,472	-47.9		83	8.2
20	20	26,955	-46.1		81	7.6
15	9	28,900	-42.5			
10						
7						
5						

BOISE, IDAHO
916 MB

Standard pressure surface (mb)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind	
					Direction	Speed
SURFACE	31	868	15.1	52	154	3.3
1000	31	113				
950	31	556				
900	31	1,018	17.8	44	158	1.6
850	31	1,507	17.6	34	288	3.5
800	31	2,023	14.4	35	284	5.8
750	31	2,561	10.5	38	273	8.0
700	31	3,134	6.5	41	261	12.6
650	31	3,734	2.1	43	247	16.5
600	31	4,379	-2.5	44	243	22.2
550	31	5,058	-7.3	44	245	26.0
500	31	5,800	-12.6	43	243	27.4
450	31	6,589	-18.2	38	247	29.0
400	31	7,467	-24.4		251	32.3
350	30	8,426	-31.5		254	33.2
300	30	9,499	-39.7		254	37.5
250	30	10,723	-48.1		251	40.8
200	30	12,172	-54.1		252	40.6
175	30	13,025	-56.1		251	41.0
150	30	13,999	-58.6		253	37.1
125	30	15,139	-60.6		254	26.2
100	27	16,525	-61.8		252	17.1
80	27	17,911	-60.0		253	6.0
70	27	18,752	-58.4		246	1.2
60	27	19,723	-56.6		53	1.0
50	27	20,884	-54.9		68	5.1
40	27	22,316	-53.2		86	7.4
30	25	24,173	-51.1		87	10.7
25	24	25,363	-49.6		87	12.4
20	23	26,833	-47.8		81	13.0
15	13	28,743	-45.1		82	21.0
10						
7						
5						

BROWNSVILLE, TEXAS
1013 MB

Standard pressure surface (mb)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind	
					Direction	Speed
SURFACE	31	7	25.0	90	162	2.1
1000	31	121	26.0	82	169	7.4
950	31	573	23.7	78	179	15.7
900	31	1,045	21.4	67	173	15.5
850	31	1,539	19.2	57	162	11.9
800	31	2,058	16.3	53	141	9.1
750	31	2,600	13.0	52	115	7.8
700	31	3,182	9.5	49	92	8.9
650	31	3,787	5.7	48	87	9.7
600	31	4,443	2.0	41	86	10.5
550	31	5,133	-2.4	40	88	9.1
500	31	5,891	-6.8	35	86	8.7
450	31	6,699	-11.7	34	103	8.7
400	31	7,599	-17.4	31	86	6.4
350	31	8,585	-24.5		88	7.0
300	31	9,689	-32.9		89	5.6
250	31	10,945	-42.6		95	4.7
200	31	12,414	-53.9		122	4.7
175	31	13,259	-60.1		105	5.1
150	31	14,206	-66.3		98	6.6
125	31	15,294	-72.0		84	9.5
100	31	16,604	-72.6		84	17.7
80	31	17,927	-68.5		89	23.5
70	31	18,734	-65.8		88	26.4
60	31	19,674	-62.9		89	29.5
50	31	20,805	-59.7		91	33.4
40	30	22,210	-56.6		91	36.1
30	29	24,049	-52.7		92	42.0
25	29	25,232	-50.5		91	42.0
20	29	26,695	-48.0		89	44.7
15	28	28,601	-45.4		87	43.9
10	24	31,325	-41.9		89	49.0
7	21	33,766	-36.7		93	54.6
5	11	36,040	-35.0			

BUFFALO, N. Y.
992 MB

Standard pressure surface (mb)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind	
					Direction	Speed
SURFACE	31	218	15.4	83	176	3.9
1000	31	146				
950	31	582	17.9	69	234	7.8
900	31	1,046	15.2	66	271	8.0
850	31	1,529	12.2	66	276	8.9
800	31	2,035	9.6	59	277	10.3
750	31	2,567	7.1	51	275	11.1
700	31	3,134	4.3	45	278	12.0
650	31	3,733	1.2	39	277	14.8
600	31	4,374	-2.7	35	277	17.5
550	31	5,057	-6.6		273	18.3
500	31	5,799	-11.1		279	21.4
450	31	6,594	-16.7		276	21.2
400	31	7,475	-22.8		277	24.1
350	31	8,442	-29.7		279	23.7
300	31	9,524	-36.3		280	29.3
250	31	10,759	-46.3		277	29.7
200	31	12,216	-53.5		286	30.1
175	31	13,072	-55.5		279	29.9
150	31	14,049	-58.1		278	29.0
125	30	15,194	-60.1		276	21.4
100	30	16,584	-60.6		275	17.9
80	30	17,979	-58.5		281	7.8
70	30	18,822	-56.9		254	4.3
60	30	19,801	-54.8		53	4.3
50	30	20,970	-53.7		78	5.2
40	30	22,410	-51.8		83	7.2
30	30	24,285	-49.1		78	11.5
25	29	25,487	-47.4		88	13.4
20	26	26,969	-44.6		89	15.2
15	18	28,897	-41.6		79	14.4
10	7	31,604	-38.8			
7						
5						

BURRWOOD, LA.
1015 MB

Standard pressure surface (mb)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind	
					Direction	Speed
SURFACE	31	3	27.8	81	161	1.2
1000	31	133	27.6	73	175	1.4
950	31	590	24.4	73	164	2.1
900	31	1,059	21.3	66	137	3.3
850	31	1,553	18.1	65	134	3.7
800	31	2,070	15.1	61	106	2.7
750	31	2,614	12.3	56	76	3.7
700	31	3,190	9.0	51	51	4.7
650	31	3,799	5.4	48	44	4.9
600	31	4,451	1.5	46	36	5.2
550	31	5,140	-2.7	43	29	5.1
500	31	5,897	-7.0	35	22	4.5
450	31	6,712	-11.7	34	14	5.8
400	31	7,605	-17.5	29	16	5.1
350	31	8,591	-24.4		18	5.8
300	31	9,696	-32.7		355	4.7
250	31	10,955	-42.5		346	4.1
200	31	12,424	-53.9		308	4.1
175	31	13,269	-60.2		306	4.5
150	31	14,216	-66.6		323	5.2
125	31	15,304	-71.7		34	7.6
100	31	16,618	-72.1		77	13.4
80	31	17,947	-67.9		79	17.9
70	31	18,768	-64.2		82	20.6
60	31	19,706	-61.5		86	25.8
50	31	20,845	-58.1		91	30.3
40	31	22,263	-54.8		88	33.4
30	30	24,114	-51.9		90	33.6
25	30	25,300	-50.2		90	36.1
20	29	26,762	-47.5		87	38.5
15	29	28,679	-43.9		84	41.8
10	25	31,420	-39.7		87	47.6
7	13	33,861	-37.9		89	56.9
5						

CANTON IS., PACIFIC AREA
1011 MB

Standard pressure surface (mb)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind	
					Direction	Speed
SURFACE	31	4	26.7	76	77	10.9
1000	31	104	26.0	76	83	12.2
950	31	557	22.5	78	96	15.9
900	31	1,024	19.1	77	94	16.5
850	31	1,514	16.4	63	94	15.0
800	31	2,029	14.4	50	92	14.8
750	31	2,576	12.1	37	87	14.2
700	31	3,148	9.1	33	84	15.2
650	31	3,759	5.8		83	15.0
600	31	4,409	2.2		85	15.9
550	31	5,101	-1.8		84	16.5
500	31	5,860	-6.2		92	18.3
450	31	6,677	-11.4		95	17.7
400	31	7,573	-17.1		106	16.1
350	30	8,562	-23.9		114	12.4
300	30	9,669	-32.4		124	9.5
250	30	10,928	-43.0		142	6.2
200	30	12,393	-55.1		180	2.1
175	30	13,234	-61.9		271	3.5
150	30	14,173	-68.9		261	8.2
125	30	15,245	-76.1		251	4.7
100	30	16,523	-77.3		88	6.6
80	28	17,821	-71.6		274	6.2
70	28	18,614	-69.0		268	16.1
60	26	19,541	-66.8		268	23.5
50	26	20,651	-63.8		270	14.4
40	26	22,028	-61.4		89	29.7
30	26	23,832	-56.7		91	51.9
25	25	24,995	-53.7		92	52.8
20	24	26,437	-51.2		87	56.3
15	24	28,316	-49.1		90	58.7
10	24	31,025	-40.7		93	37.9
7	16	33,482	-38.7		104	6.2
5	10	35,768	-36.7			

See reference note at end of table

RAWINSONDE DATA

Average monthly values

CAPE HATTERAS, N. C. 1015 MB

Standard pressure surface (mb.)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind Direction	Wind Speed
SURFACE	31	4	23.7	87	31	2.9
1000	31	132	23.9	81	19	2.9
950	31	580	21.6	73	11	4.1
900	31	1,048	18.8	68	5	2.9
850	31	1,538	15.9	64	314	3.3
800	31	2,051	13.1	62	289	4.9
750	31	2,590	10.4	52	276	6.2
700	31	3,164	7.6	50	273	7.0
650	31	3,770	4.4	43	273	8.4
600	31	4,420	1.1	39	269	11.3
550	31	5,110	-2.8	37	265	11.5
500	31	5,865	-7.0		266	13.2
450	31	6,675	-12.5		268	14.2
400	31	7,570	-18.6		262	18.3
350	31	8,553	-25.3		263	19.4
300	31	9,655	-33.2		263	22.0
250	31	10,912	-42.7		269	24.1
200	31	12,381	-53.7		272	27.2
175	31	13,229	-59.3		276	25.3
150	31	14,183	-63.8		277	20.0
125	31	15,295	-65.7		276	13.4
100	31	16,647	-66.3		299	6.6
80	31	18,009	-63.1		66	6.6
70	31	18,844	-60.7		86	10.3
60	31	19,800	-58.5		86	15.3
50	30	20,953	-56.3		86	19.6
40	30	22,380	-53.3		88	25.1
30	29	24,248	-49.6		92	25.8
25	29	25,447	-47.6		90	26.4
20	28	26,927	-45.4		90	26.6
15	27	28,858	-43.1		87	30.7
10	25	31,614	-39.0		88	33.8
7	16	34,063	-36.4			

CARIBOU, ME. 994 MB

Standard pressure surface (mb.)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind Direction	Wind Speed
SURFACE	31	191	13.0	94	205	1.0
1000	31	138				
950	31	570	13.8	80	266	4.5
900	31	1,027	12.3	73	287	5.8
850	31	1,505	10.2	69	287	6.2
800	31	2,008	7.8	62	275	8.9
750	31	2,540	5.5	53	270	11.9
700	31	3,100	2.9	49	266	14.2
650	31	3,695	.0	41	264	15.0
600	31	4,335	-3.6	39	263	17.7
550	31	5,011	-7.7	36	262	20.4
500	31	5,752	-12.3	36	260	23.7
450	31	6,545	-17.7	34	259	25.5
400	31	7,422	-23.9	35	258	28.0
350	31	8,383	-30.9		260	29.1
300	31	9,459	-39.0		258	34.8
250	31	10,684	-48.1		256	38.3
200	31	12,132	-54.4		259	36.1
175	31	12,985	-55.2		258	37.1
150	31	13,968	-55.6		257	32.3
125	30	15,127	-57.2		257	28.4
100	30	16,538	-57.1		256	19.4
80	29	17,962	-55.3		257	12.8
70	29	18,819	-54.4		260	8.5
60	29	19,809	-53.0		257	4.3
50	29	20,988	-52.1		239	.8
40	29	22,438	-50.9		97	2.7
30	28	24,320	-48.3		91	7.8
25	28	25,527	-46.9		87	10.7
20	26	27,006	-44.9		89	11.7
15	26	28,947	-41.3		84	12.4
10	26	31,730	-36.6		98	18.8
7	20	34,243	-30.7		89	16.3

CHARLESTON, S. C. 1014 MB

Standard pressure surface (mb.)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind Direction	Wind Speed
SURFACE	31	[illegible]	[illegible]	91	[illegible]	2.5
1000	31	[illegible]	23.5	84	15	[illegible]
950	31	588	22.4	72	57	[illegible]
900	31	1,056	20.0	71	[illegible]	[illegible]
850	31	1,548	17.0	68	44	2.7
800	31	2,063	14.1	62	16	1.4
750	31	2,603	11.4	57	320	2.5
700	31	3,180	8.4	52	312	3.9
650	31	3,786	5.0	45	286	3.9
600	31	4,439	1.4	41	279	4.9
550	31	5,128	-2.2	38	272	6.4
500	31	5,988	-6.5	37	271	[illegible]
450	31	6,699	-11.6		274	8.4
400	31	7,547	-17.6		[illegible]	9.3
350	31	8,584	[illegible]		272	10.3
300	31	9,690	-32.6		269	12.2
250	31	10,949	-42.5		278	15.2
200	31	12,421	-53.7		289	17.5
175	31	13,267	[illegible]		301	17.9
150	31	14,217	-65.2		299	12.8
125	31	15,318	-68.5		304	7.2
100	31	16,654	-68.5		355	5.2
80	31	18,004	-64.8		61	11.1
70	31	18,827	-62.5		78	15.5
60	31	19,781	-59.6		73	21.4
50	30	20,930	-57.0		87	24.7
40	30	22,354	[illegible]		92	29.0
30	29	24,216	-50.0		93	29.3
25	28	25,413	-48.3		94	29.7
20	28	26,889	-46.6		86	30.1
15	22	28,800	-44.2		84	32.1

COLD BAY, ALASKA 1010 MB

Standard pressure surface (mb.)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind Direction	Wind Speed
SURFACE	31	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
1000	31	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
950	31	[illegible]	8.4	[illegible]	245	[illegible]
900	31	[illegible]	7.4	[illegible]	[illegible]	[illegible]
850	31	[illegible]	[illegible]	[illegible]	247	[illegible]
800	31	[illegible]	[illegible]	[illegible]	[illegible]	14.4
750	31	[illegible]	[illegible]	[illegible]	[illegible]	16.7
700	31	[illegible]	[illegible]	[illegible]	[illegible]	19.2
650	31	[illegible]	[illegible]	[illegible]	232	[illegible]
600	31	[illegible]	-7.1	[illegible]	233	25.1
550	31	[illegible]	[illegible]	[illegible]	235	28.4
500	30	[illegible]	[illegible]	47	[illegible]	[illegible]
450	[illegible]	6,430	[illegible]	[illegible]	[illegible]	34.2
400	[illegible]	7,303	[illegible]	42	244	[illegible]
350	[illegible]	8,255	[illegible]	47	[illegible]	35.0
300	[illegible]	9,320	[illegible]		253	[illegible]
250	[illegible]	[illegible]	[illegible]		254	42.0
200	[illegible]	11,988	[illegible]		253	38.9
175	[illegible]	12,852	[illegible]		[illegible]	34.0
150	[illegible]	13,845	-54.0		[illegible]	26.4
125	27	[illegible]	-54.8		258	21.2
100	24	16,449	-54.6		263	13.6
80	23	17,580	[illegible]		261	8.4
70	[illegible]	[illegible]	-53.1		259	4.3
60	[illegible]	19,736	-52.7		91	.8
50	[illegible]	20,911	[illegible]		[illegible]	.8
40	18	22,354	[illegible]		51	.6
30	17	24,220	[illegible]		64	1.9
25	15	25,418	-48.5		59	4.1
20	14	[illegible]	[illegible]		78	[illegible]
15	12	28,799	-45.0		69	5.1
10	9	31,518	-40.8			

COLUMBIA, MO. 987 MB

Standard pressure surface (mb.)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind Direction	Wind Speed
SURFACE	31	[illegible]	19.0	84	[illegible]	[illegible]
1000	31	[illegible]				
950	31	[illegible]	[illegible]	65	[illegible]	7.0
900	31	1,036	[illegible]	[illegible]	[illegible]	[illegible]
850	31	1,528	[illegible]	52	[illegible]	9.1
800	31	2,044	15.0	46	275	[illegible]
750	31	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
700	31	3,164	8.7	[illegible]	282	[illegible]
650	31	3,767	4.5	39	284	14.4
600	31	4,420	[illegible]	40	280	14.6
550	31	5,103	[illegible]	[illegible]	288	[illegible]
500	31	5,858	[illegible]		[illegible]	[illegible]
450	31	6,658	[illegible]		[illegible]	[illegible]
400	31	7,551	[illegible]		284	[illegible]
350	31	8,528	[illegible]		[illegible]	[illegible]
300	31	9,623	-34.4		[illegible]	[illegible]
250	31	10,873	[illegible]		[illegible]	[illegible]
200	[illegible]	12,340	[illegible]		[illegible]	[illegible]
175	[illegible]	13,190	[illegible]		[illegible]	[illegible]
150	[illegible]	14,150	-62.5		271	[illegible]
125	30	15,263	-66.3		286	[illegible]
100	30	16,612	-66.4		285	11.9
80	28	17,975	-63.4		332	4.7
70	28	[illegible]	-61.2		48	4.1
60	28	19,764	-58.4		65	[illegible]
50	28	20,918	[illegible]		85	11.7
40	26	22,350	[illegible]		[illegible]	[illegible]
30	26	24,215	[illegible]		87	17.5
25	26	25,407	-49.3		89	[illegible]
20	19	26,874	-47.2		88	21.6
15	7	28,758	-44.1			

DAYTON, OHIO 982 MB

Standard pressure surface (mb.)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind Direction	Wind Speed
SURFACE	31	297	16.6	89	16	1.6
1000	31	141				
950	31	580	19.4	71	222	1.9
900	31	1,047	17.4	65	265	6.4
850	31	1,533	14.6	60	275	8.2
800	31	2,044	12.3	47	280	9.7
750	31	2,580	9.5	42	282	10.5
700	31	3,153	6.5	40	284	12.0
650	31	3,752	3.5	34	278	13.0
600	31	4,403	-.4		279	14.2
550	31	5,084	-4.6		276	15.7
500	31	5,839	-9.3		276	17.5
450	31	6,638	-14.5		274	18.3
400	31	7,529	-20.6		282	21.0
350	31	8,504	-27.8		289	22.7
300	31	9,594	-36.0		289	25.5
250	31	10,837	-44.8		286	33.2
200	31	12,301	-53.5		289	37.5
175	31	13,154	-57.1		288	35.2
150	31	14,121	-60.9		288	29.9
125	31	15,248	-63.7		284	22.5
100	31	16,615	-63.9		284	14.4
80	31	17,987	-62.0		309	5.6
70	31	18,824	-59.6		26	2.5
60	31	19,787	-57.0		76	5.8
50	31	20,947	-54.9		81	10.5
40	30	22,379	-53.0		86	14.6
30	30	24,244	-50.6		87	16.9
25	30	25,438	-48.0		83	17.7
20	29	26,916	-45.5		82	19.8
15	24	28,839	-43.1		86	21.0
10	6	31,579	-38.8			

DENVER, COLO. 841 MB

Standard pressure surface (mb.)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind Direction	Wind Speed
SURFACE	31	1,611	14.2	54	209	3.7
1000	31	111				
950	31	553				
900	31	1,022				
850	31	1,515				
800	31	2,034	18.4	40	256	4.3
750	31	2,580	15.8	36	263	5.8
700	31	3,167	12.0	36	276	8.0
650	31	3,779	7.1	37	288	10.9
600	31	4,434	1.4	43	282	12.8
550	31	5,118	-4.2	48	278	16.7
500	31	5,871	-9.8	42	275	17.3
450	31	6,671	-15.1		266	18.7
400	31	7,557	-21.0		262	21.6
350	31	8,529	-28.2		262	28.0
300	31	9,617	-36.3		264	33.6
250	31	10,857	-45.3		262	39.8
200	30	12,318	-54.0		263	42.2
175	30	13,166	-58.6		263	39.8
150	30	14,124	-63.3		264	32.8
125	30	15,233	-66.9		266	22.7
100	29	16,575	-67.2		262	12.4
80	29	17,936	-62.7		242	3.3
70	29	18,773	-60.3		94	1.4
60	29	19,732	-57.5		88	5.2
50	29	20,892	-55.1		88	10.1
40	29	22,322	-53.7		92	14.0
30	29	24,183	-51.1		89	15.5
25	29	25,375	-49.2		86	16.1
20	29	26,847	-47.2		84	17.7
15	18	28,757	-44.5		90	20.8
10	6	31,497	-40.0			

DODGE CITY, KANS. 925 MB

Standard pressure surface (mb.)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind Direction	Wind Speed
SURFACE	30	792	19.0	75	173	4.1
1000	30	114				
950	30	559				
900	30	1,030	22.5	54	188	10.5
850	30	1,527	22.3	43	227	16.7
800	30	2,052	19.6	39	235	13.0
750	30	2,599	15.9	38	248	11.3
700	30	3,186	11.7	38	252	10.5
650	30	3,795	7.2	41	263	7.8
600	30	4,454	2.2	45	268	7.8
550	30	5,144	-3.0	46	280	9.5
500	30	5,899	-8.1	41	282	11.9
450	30	6,705	-13.3	34	285	12.6
400	30	7,598	-19.1		278	15.3
350	30	8,577	-26.2		276	18.7
300	29	9,676	-34.4		284	22.9
250	29	10,925	-44.0		281	23.1
200	28	12,391	-53.8		272	26.4
175	27	13,237	-59.0		272	26.2
150	27	14,192	-63.8		275	24.1
125	27	15,298	-67.6		277	17.5
100	27	16,639	-68.0		274	8.9
80	26	17,975	-63.7		257	1.4
70	25	18,832	-60.8		99	4.1
60	25	19,784	-58.3		95	10.5
50	25	20,938	-56.0		96	11.7
40	25	22,364	-53.5		91	15.7
30	25	24,227	-50.5		89	18.1
25	24	25,421	-48.8		87	21.2
20	21	26,890	-46.7		85	20.8
15	10	28,801	-45.3			

EL PASO, TEXAS 884 MB

Standard pressure surface (mb.)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind Direction	Wind Speed
SURFACE	31	1,193	22.7	42	60	.6
1000	31	96				
950	31	554				
900	31	1,032				
850	31	1,533	23.9	33	107	1.9
800	31	2,060	20.6	35	174	3.3
750	31	2,608	16.4	39	203	2.5
700	31	3,196	11.6	42	235	1.2
650	31	3,807	6.6	47	62	2.1
600	31	4,463	1.3	51	47	4.9
550	31	5,152	-3.6	46	64	6.2
500	31	5,904	-8.3	40	102	5.1
450	31	6,712	-13.0		114	1.9
400	31	7,604	-19.1		116	1.7
350	31	8,585	-25.7		217	1.7
300	31	9,683	-34.2		281	3.9
250	31	10,933	-44.1		284	3.7
200	31	12,395	-55.1		274	4.7
175	31	13,237	-60.8		266	6.4
150	31	14,183	-66.8		265	6.4
125	31	15,270	-71.9		267	2.1
100	30	16,585	-71.5		61	4.1
80	30	17,914	-67.7		87	12.0
70	30	18,730	-64.9		88	15.0
60	30	19,672	-61.9		88	20.0
50	29	20,807	-59.3		92	25.5
40	28	22,215	-56.3		92	27.8
30	28	24,060	-52.7		89	29.9
25	28	25,243	-50.6		89	30.5
20	28	26,705	-48.5		89	31.7
15	[illegible]	28,610	-46.0		85	30.1
10	7	31,329	-42.7			

ELY, NEV. 813 MB

Standard pressure surface (mb.)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind Direction	Wind Speed
SURFACE	31	1,908	10.5	36	205	5.8
1000	31	133				
950	31	579				
900	31	1,043				
850	31	1,527				
800	31	2,039	16.1	27	196	5.8
750	31	2,590	15.4	24	200	7.6
700	31	3,168	11.2	26	231	11.9
650	31	3,780	6.5	30	235	15.3
600	31	4,432	1.1	32	229	16.9
550	31	5,116	-4.5	37	228	19.0
500	31	5,867	-9.9	33	236	21.2
450	31	6,666	-14.9		241	22.9
400	31	7,555	-21.2		245	24.9
350	31	8,527	-28.8		245	27.4
300	30	9,612	-37.2		245	32.4
250	30	10,848	-46.1		243	37.5
200	30	12,305	-53.9		243	42.2
175	30	13,155	-58.0		244	40.8
150	30	14,118	-61.9		246	35.4
125	30	15,239	-64.6		250	24.7
100	30	16,597	-66.6		249	9.3
80	30	17,960	-62.7		235	4.3
70	30	18,797	-60.1		118	1.0
60	30	19,757	-57.6		81	6.2
50	30	20,914	-55.8		88	9.3
40	29	22,346	-54.0		85	13.2
30	29	24,205	-51.3		85	16.9
25	29	25,394	-49.7		88	18.1
20	27	26,867	-47.3		87	19.8
15	21	28,775	-44.4		87	19.0
10	6	31,445	-42.3			

FAIRBANKS, ALASKA 994 MB

Standard pressure surface (mb.)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind Direction	Wind Speed
SURFACE	31	135	11.8	89	250	3.3
1000	31	85	10.8			
950	31	511	12.1	71	247	4.1
900	31	966	9.6	69	244	6.8
850	31	1,438	6.7	69	236	8.5
800	31	1,934	3.4	71	224	8.4
750	31	2,446	-.2	75	228	9.5
700	31	3,004	-3.5	73	230	10.3
650	31	3,575	-7.0	73	231	10.1
600	31	4,207	-10.7	62	234	9.9
550	31	4,862	-15.0	55	231	9.1
500	31	5,586	-19.8	50	224	9.1
450	31	6,354	-25.3	44	226	8.9
400	31	7,206	-31.5	41	230	10.9
350	31	8,137	-38.5		240	10.5
300	31	9,180	-45.8		261	11.1
250	31	10,375	-52.0		262	13.2
200	31	11,820	-50.9		269	16.3
175	31	12,693	-49.4		268	15.9
150	30	13,703	-49.5		262	15.0
125	30	14,894	-50.4		265	13.4
100	30	16,351	-50.0		263	9.9
80	30	17,810	-50.0		269	8.0
70	30	18,674	-49.9		265	5.8
60	29	19,688	-50.2		270	4.1
50	29	20,877	-50.2		275	2.7
40	29	22,335	-49.6		271	.8
30	26	24,222	-48.3		344	1.7
25	26	25,425	-47.2		354	1.6
20	23	26,910	-45.4		68	3.7
15	20	28,853	-42.4		64	5.4
10	16	31,626	-37.1		71	8.4
7	8	34,136	-31.8			
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FLINT, MICH. 990 MB

Standard pressure surface (mb.)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind Direction	Wind Speed
SURFACE	31	234	14.8	92	232	1.4
1000	31	146				
950	31	590	18.0	68	253	5.4
900	31	1,046	15.5	62	271	11.9
850	31	1,529	12.9	55	284	9.7
800	31	2,037	10.9	44	282	9.5
750	31	2,576	8.2	40	282	11.3
700	31	3,140	5.1	38	282	13.2
650	31	3,740	1.7	37	281	15.0
600	31	4,382	-2.0		282	18.3
550	31	5,063	-5.9		282	19.8
500	31	5,810	-10.6		283	22.3
450	31	6,607	-15.9		289	24.9
400	31	7,490	-22.3		286	28.4
350	31	8,458	-29.3		285	31.3
300	31	9,540	-37.4		282	33.2
250	31	10,774	-46.7		290	39.4
200	31	12,227	-53.9		292	40.8
175	31	13,079	-56.2		290	40.6
150	31	14,052	-58.8		288	34.8
125	31	15,189	-61.3		284	27.6
100	31	16,572	-61.0		283	18.1
80	31	17,963	-59.4		283	8.0
70	31	18,807	-57.7		296	5.2
60	31	19,780	-55.8		13	2.1
50	31	20,947	-53.7		89	5.8
40	31	22,388	-51.9		96	9.1
30	29	24,264	-49.8		83	12.6
25	28	25,462	-48.0		84	14.6
20	25	26,949	-45.7		83	16.7
15	16	28,892	-41.9		86	18.1
10	5	31,682	-36.8			

FORT WORTH, TEXAS 994 MB

Standard pressure surface (mb.)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind Direction	Wind Speed
SURFACE	31	180	24.0	76	188	2.3
1000	31	126				
950	31	580	26.1	59	204	13.2
900	31	1,054	24.1	55	207	12.6
850	31	1,553	21.0	54	207	8.2
800	31	2,075	17.4	55	219	4.1
750	31	2,618	13.5	56		.0
700	31	3,201	9.4	56	24	3.5
650	31	3,808	5.4	49	44	4.1
600	31	4,462	1.7	40	46	3.7
550	31	5,151	-2.8	37	51	3.7
500	31	5,909	-7.0		17	3.3
450	31	6,717	-12.2		8	4.1
400	31	7,514	-18.2		2	3.7
350	31	8,597	-25.2		324	4.7
300	31	9,699	-33.4		306	5.8
250	31	10,955	-42.7		301	6.4
200	31	12,428	-53.5		290	6.6
175	30	13,275	-59.4		301	5.8
150	30	14,226	-65.2		296	5.6
125	30	15,324	-70.1		316	5.2
100	29	16,646	-70.4		75	5.1
80	29	17,979	-66.8		84	11.1
70	29	18,799	-63.8		85	14.6
60	29	19,743	-60.7		89	18.8
50	29	20,885	-57.8		92	22.2
40	28	22,303	-55.0		91	25.6
30	27	24,151	-52.2		87	28.2
25	26	25,334	-50.2		90	29.9
20	19	26,801	-47.3		[illegible]	31.9
15	16	28,720	-44.6		89	34.8
10	11	31,441	-41.3			

GLASGOW, MONT. 933 MB

Standard pressure surface (mb.)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind Direction	Wind Speed
SURFACE	31	696	14.5	70	51	[illegible]
1000	31	94				
950	31	559				
900	31	[illegible]	17.8	51	279	5.1
850	31	1,488	16.1	44	295	10.7
800	31	2,001	12.8	44	290	12.6
750	31	2,534	9.0	48	285	15.9
700	31	3,107	4.8	53	281	16.9
650	31	3,701	.6	52	276	21.8
600	31	4,346	-3.5	49	275	24.9
550	31	5,021	-8.2	47	272	25.6
500	30	5,770	-13.1	43	272	[illegible]
450	30	[illegible]	-18.3	36	271	[illegible]
400	30	7,432	-24.8	33	[illegible]	[illegible]
350	30	8,389	-32.2		[illegible]	[illegible]
300	[illegible]	9,457	-40.5		269	37.7
250	[illegible]	10,674	-49.3		268	42.0
200	[illegible]	12,117	-54.2		267	[illegible]
175	[illegible]	12,972	-54.4		267	[illegible]
150	[illegible]	13,955	-56.3		267	[illegible]
125	[illegible]	15,107	-57.8		[illegible]	[illegible]
100	[illegible]	16,510	-58.3		277	18.3
80	30	17,918	-56.8		281	6.6
70	30	18,769	-55.8		291	2.9
60	30	19,750	-54.5		345	1.7
50	[illegible]	20,921	-53.1		58	2.1
40	[illegible]	22,365	-51.4		77	6.6
30	26	24,240	-49.3		94	[illegible]
25	[illegible]	[illegible]	-47.7		91	[illegible]
20	[illegible]	26,920	-45.4		78	[illegible]
15	22	28,861	-42.8		87	[illegible]
10	11	31,608	-38.0			

GRAND JUNCTION, COLO. 854 MB

Standard pressure surface (mb.)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind Direction	Wind Speed
SURFACE	31	1,474	16.6	32	127	[illegible]
1000	31	90				
950	31	540				
900	31	1,017				
850	31	1,517	19.7	31	128	5.5
800	31	2,040	19.8	26	147	6.7
750	31	2,588	16.5	27	[illegible]	5.8
700	31	3,175	12.1	[illegible]	246	8.7
650	31	3,783	7.1	36	[illegible]	[illegible]
600	31	4,442	1.7	41	[illegible]	[illegible]
550	31	5,128	-4.0	48	[illegible]	[illegible]
500	31	5,881	-9.6	49	[illegible]	[illegible]
450	31	6,682	-15.0	[illegible]	[illegible]	[illegible]
400	31	7,568	-21.0		[illegible]	24.1
350	31	8,541	-27.8		[illegible]	[illegible]
300	31	9,630	-36.1		[illegible]	35.6
250	31	10,870	-45.1		[illegible]	41.4
200	31	[illegible]	-54.0		[illegible]	44.9
175	31	13,178	-58.9		[illegible]	41.2
150	31	14,134	[illegible]		256	34.2
125	31	15,241	-67.4		257	24.3
100	30	16,582	[illegible]		260	13.2
80	30	17,936	-63.7		245	2.9
70	30	18,768	-61.0		91	[illegible]
60	[illegible]	19,726	-58.4		85	[illegible]
50	[illegible]	[illegible]	-56.0		89	[illegible]
40	[illegible]	[illegible]	-54.2		87	[illegible]
30	[illegible]	24,157	-51.6		[illegible]	17.5
25	[illegible]	25,346	-49.2		87	[illegible]
20	[illegible]	[illegible]	-46.9		87	19.6
15	[illegible]	28,737	-44.4		65	[illegible]
10	[illegible]	31,478	-39.7		87	[illegible]
7	[illegible]	33,928	-36.7		[illegible]	26.6
5	[illegible]	36,256	-33.6			

See reference note at end of table

RAWINSONDE DATA

Average monthly values

GREAT FALLS, MONT.
888 MB

Standard pressure surface (mb)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind	
					Direction	Speed
SURFACE	31	1,123	13.4	61	227	6.0
1000	31	109				
950	31	550				
900	31	1,013				
850	31	1,496	14.8	47	238	9.5
800	31	2,006	11.6	49	257	8.4
750	31	2,538	7.9	51	255	9.9
700	31	3,110	4.3	53	261	14.4
650	30	3,698	.1	54	264	19.2
600	30	4,344	-3.9	53	259	25.3
550	30	5,014	-8.7	50	255	27.8
500	30	5,756	-13.8	46	254	29.0
450	30	6,540	-18.9	45	251	31.1
400	30	7,415	-25.6	45	252	30.7
350	30	8,369	-33.0		245	36.3
300	30	9,435	-41.1		248	40.2
250	30	10,652	-49.2		254	42.2
200	30	12,097	-54.1		254	47.4
175	30	12,953	-54.7		254	42.6
150	30	13,937	-55.7		259	40.0
125	30	15,094	-57.3		258	28.4
100	30	16,502	-58.5		257	20.0
80	29	17,907	-57.5		258	10.7
70	29	18,754	-56.2		276	3.5
60	28	19,734	-54.6		327	2.1
50	28	20,904	-53.3		16	2.3
40	28	22,345	-51.5		78	6.0
30	28	24,219	-49.8		92	8.2
25	28	25,414	-48.4		90	9.7
20	28	26,889	-46.3		87	10.7
15	26	28,816	-43.3		84	10.9
10	20	31,580	-38.2		88	15.5
7	17	34,077	-34.3		90	22.3
5	8	36,446	-31.9			

GREEN BAY, WIS.
990 MB

Standard pressure surface (mb)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind	
					Direction	Speed
SURFACE	31	210	14.8	90	284	1.2
1000	31	127				
950	31	562	17.7	70	258	6.2
900	31	1,025	15.4	65	270	8.7
850	31	1,508	12.7	65	278	9.7
800	31	2,015	10.5	54	284	10.1
750	31	2,548	7.8	51	288	11.3
700	31	3,117	4.9	45	287	13.4
650	31	3,712	1.5	44	286	16.5
600	31	4,359	-2.2	42	285	19.0
550	31	5,036	-6.5	43	288	20.4
500	31	5,783	-11.3	38	285	21.4
450	31	6,579	-16.5	35	283	24.7
400	31	7,460	-22.5		281	28.6
350	31	8,427	-29.6		285	30.9
300	31	9,507	-37.7		285	34.4
250	31	10,741	-46.5		290	42.6
200	31	12,197	-54.1		291	49.9
175	31	13,049	-56.5		288	46.2
150	31	14,022	-58.7		288	40.4
125	31	15,164	-60.0		285	31.5
100	31	16,558	-59.5		286	19.8
80	31	17,956	-58.2		284	11.5
70	31	18,802	-57.1		291	6.8
60	31	19,778	-55.5		325	3.1
50	31	20,943	-53.9		50	3.1
40	31	22,383	-51.7		79	6.6
30	28	24,251	-49.4		91	10.3
25	26	25,449	-48.0		90	12.2
20	23	26,932	-45.9		89	14.4
15	10	28,844	-43.0			
10						
7						
5						

GREENSBORO, N. C.
986 MB

Standard pressure surface (mb)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind	
					Direction	Speed
SURFACE	31	273	19.0	94	48	1.4
1000	31	151				
950	31	594	20.5	79	70	1.6
900	31	1,061	18.6	71	354	1.7
850	31	1,550	15.5	72	318	3.5
800	31	2,063	12.6	67	299	6.4
750	31	2,602	10.1	56	292	7.6
700	31	3,174	7.4	49	289	7.8
650	31	3,779	4.0	45	286	7.4
600	31	4,429	.5	41	271	6.8
550	31	5,120	-3.1		265	8.7
500	31	5,872	-7.8		271	11.1
450	31	6,679	-12.9		273	12.6
400	31	7,572	-19.5		276	15.3
350	31	8,551	-26.2		276	20.2
300	31	9,649	-34.2		276	23.1
250	31	10,901	-43.8		278	26.8
200	31	12,367	-53.8		284	30.3
175	31	13,215	-59.1		285	28.2
150	31	14,171	-63.7		284	22.9
125	31	15,282	-66.6		287	15.7
100	31	16,630	-66.9		297	6.6
80	31	17,989	-63.6		38	5.1
70	31	18,819	-61.7		66	8.4
60	31	19,773	-59.6		78	13.6
50	31	20,921	-57.3		86	19.0
40	31	22,343	-54.3		90	22.2
30	31	24,205	-50.4		89	24.9
25	29	25,401	-48.9		87	24.9
20	21	26,871	-46.7		94	23.3
15	5	28,802	-44.4			
10						
7						
5						

GUAM, MARIANA IS.
998 MB

Standard pressure surface (mb)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind	
					Direction	Speed
SURFACE	31	111	24.8	94	109	1.4
1000	31	92	24.7		96	2.5
950	31	543	23.8	80	121	4.9
900	31	1,017	21.2	77	125	4.3
850	31	1,511	18.6	75	110	4.7
800	31	2,030	15.9	72	105	3.7
750	31	2,576	12.9	71	102	5.4
700	31	3,155	9.5	69	103	5.8
650	31	3,767	5.9	69	108	6.2
600	31	4,418	2.1	68	104	6.8
550	31	5,112	-1.7	65	103	6.6
500	31	5,871	-6.1	63	100	6.4
450	31	6,685	-10.9	60	96	6.8
400	31	7,586	-16.3	51	86	6.0
350	31	8,577	-23.0	48	98	4.7
300	31	9,688	-31.5	44	91	3.9
250	31	10,950	-41.8		91	2.1
200	30	12,419	-54.5		98	4.5
175	30	13,259	-61.8		87	5.4
150	30	14,195	-69.5		81	7.2
125	30	15,260	-76.8		71	15.0
100	25	16,536	-76.2		81	22.2
80	23	17,829	-72.5		87	26.4
70	23	18,619	-69.4		88	28.4
60	23	19,547	-66.1		87	29.0
50	20	20,660	-62.8		85	36.1
40	20	22,047	-59.6		87	42.2
30	20	23,859	-56.5		89	52.1
25	19	25,021	-54.1		89	59.7
20	19	26,460	-51.7		90	67.6
15	15	28,345	-47.8		87	70.5
10	6	31,030	-45.7			
7						
5						

HILO, HAWAII
1017 MB

Standard pressure surface (mb)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind	
					Direction	Speed
SURFACE	31	11	21.3	84	243	4.9
1000	31	154	22.7	78	249	2.3
950	31	599	19.5	81	59	3.9
900	31	1,064	16.1	84	68	6.2
850	31	1,548	13.1	84	73	7.2
800	31	2,056	10.6	78	77	8.7
750	31	2,596	9.7	42	92	9.9
700	31	3,166	8.3		106	6.8
650	31	3,775	5.5		106	5.8
600	31	4,425	2.9		107	3.7
550	31	5,116	-1.3		171	2.3
500	31	5,877	-6.2		219	3.9
450	31	6,687	-12.0		241	5.6
400	31	7,583	-18.8		256	9.3
350	31	8,564	-26.0		257	14.0
300	31	9,660	-34.9		264	18.3
250	31	10,906	-44.9		274	26.6
200	30	12,359	-56.2		274	32.3
175	30	13,196	-61.9		272	32.8
150	29	14,138	-67.1		264	27.2
125	29	15,227	-70.8		250	15.2
100	29	16,540	-72.2		128	4.3
80	29	17,860	-69.7		99	17.5
70	28	18,657	-67.2		94	22.2
60	28	19,592	-64.1		87	25.6
50	28	20,716	-61.4		87	33.8
40	27	22,113	-58.1		91	40.0
30	27	23,942	-54.0		89	42.9
25	27	25,120	-51.8		88	46.6
20	27	26,574	-49.8		92	49.4
15	24	28,464	-47.7		93	56.3
10	8	31,162	-43.7			
7						
5						

HUNTINGTON, W. VA.
988 MB

Standard pressure surface (mb)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind	
					Direction	Speed
SURFACE	31	246	17.1	93	148	1.0
1000	31	145				
950	31	588	20.8	70	225	3.3
900	31	1,054	18.6	64	269	5.1
850	31	1,543	15.4	63	283	6.6
800	31	2,055	12.4	58	286	8.4
750	31	2,591	9.9	44	287	9.9
700	31	3,165	7.6	33	286	10.5
650	31	3,768	4.0		283	11.5
600	31	4,418	.1		281	11.1
550	31	5,102	-4.1		281	12.0
500	31	5,856	-8.6		281	12.4
450	31	6,655	-13.8		281	14.6
400	31	7,551	-20.4		280	15.0
350	31	8,527	-27.5		280	18.1
300	31	9,618	-35.3		282	21.0
250	31	10,865	-44.3		290	24.7
200	31	12,332	-53.5		286	28.0
175	31	13,182	-58.1		286	27.4
150	31	14,145	-61.9		286	24.5
125	31	15,265	-64.7		286	17.5
100	31	16,625	-64.9		295	11.7
80	31	17,994	-62.6		338	3.5
70	31	18,828	-60.3		47	4.1
60	31	19,789	-58.2		82	6.6
50	31	20,944	-56.0		85	10.5
40	31	22,373	-53.4		87	14.2
30	31	24,239	-50.4		85	16.5
25	30	25,436	-48.2		86	17.5
20	29	26,914	-45.6		90	18.3
15	21	28,850	-43.2		85	20.8
10	5	31,613	-38.2			
7						
5						

INTERNAT. FALLS, MINN.
971 MB

Standard pressure surface (mb)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind	
					Direction	Speed
SURFACE	31	360	12.0	88	169	1.0
1000	31	113				
950	31	547	15.1	78	222	4.7
900	31	1,004	14.2	71	248	11.9
850	31	1,486	11.8	68	262	13.8
800	31	1,991	9.2	59	272	16.1
750	31	2,518	6.4	53	274	17.1
700	31	3,087	3.3	50	275	19.4
650	31	3,680	-.3	47	275	19.6
600	31	4,320	-4.4	45	278	23.1
550	31	4,994	-8.8	42	275	28.0
500	31	5,733	-13.3	37	277	29.3
450	31	6,518	-18.7	35	276	32.3
400	31	7,396	-24.8	33	279	35.2
350	31	8,354	-31.9		281	40.8
300	31	9,426	-39.9		279	47.0
250	31	10,650	-48.4		276	48.8
200	31	12,095	-55.0		275	54.8
175	31	12,948	-55.2		277	52.1
150	31	13,931	-56.0		280	43.9
125	31	15,089	-56.7		283	33.6
100	31	16,500	-57.3		282	23.7
80	31	17,913	-56.3		283	14.6
70	31	18,762	-55.0		283	10.7
60	31	19,750	-53.9		283	6.2
50	31	20,923	-52.9		268	1.6
40	30	22,369	-51.3		80	2.9
30	29	24,246	-49.3		86	4.7
25	28	25,450	-47.8		79	5.2
20	27	26,922	-45.9		79	6.8
15	23	28,839	-43.5		77	9.3
10	18	31,616	-38.5		84	12.8
7	10	34,097	-34.9		81	12.8
5	6	36,480	-32.0			

JACKSON, MISS.
1005 MB

Standard pressure surface (mb)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind	
					Direction	Speed
SURFACE	31	94	22.8	89	152	.8
1000	31	134	23.1	87	198	1.9
950	31	587	24.4	72	237	6.6
900	31	1,058	21.6	69	244	5.8
850	31	1,552	18.6	66	252	2.9
800	31	2,071	15.5	62	287	2.3
750	31	2,611	12.2	56	315	2.5
700	31	3,191	8.6	53	332	2.5
650	31	3,796	5.0	49	354	3.9
600	31	4,449	.8	52	349	5.2
550	31	5,137	-3.4	46	331	5.4
500	31	5,890	-7.7	42	330	5.8
450	31	6,701	-12.3	36	332	8.0
400	31	7,594	-17.8		329	9.3
350	31	8,580	-24.8		317	10.7
300	31	9,684	-32.9		303	9.7
250	31	10,941	-42.7		295	13.0
200	31	12,412	-53.9		289	13.0
175	31	13,258	-59.8		296	11.3
150	31	14,209	-65.4		307	7.8
125	31	15,306	-69.8		360	4.1
100	30	16,635	-70.3		57	5.2
80	30	17,971	-66.4		73	12.4
70	30	18,797	-63.2		82	16.7
60	30	19,741	-60.1		85	21.0
50	30	20,886	-57.6		90	24.5
40	30	22,304	-54.8		93	27.4
30	30	24,160	-50.9		92	29.9
25	30	25,353	-48.9		88	30.1
20	29	26,823	-47.2		87	31.9
15	23	28,732	-44.6		86	35.2
10	6	31,440	-42.2			
7						
5						

JACKSONVILLE, FLA.
1016 MB

Standard pressure surface (mb)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind	
					Direction	Speed
SURFACE	31	5	22.9	95	313	1.4
1000	31	141	24.0	87	286	2.1
950	31	589	22.9	76	295	2.1
900	31	1,061	20.2	73	340	.8
850	31	1,553	17.3	70	19	1.4
800	31	2,069	14.5	64	321	1.4
750	31	2,609	11.5	61	288	2.7
700	31	3,186	8.3	56	284	3.5
650	31	3,791	4.9	56	282	3.5
600	31	4,444	1.3	52	287	3.9
550	31	5,131	-2.5	47	284	4.5
500	31	5,892	-6.4	45	274	5.1
450	31	6,705	-11.3	45	286	5.8
400	31	7,604	-17.1	38	283	7.2
350	31	8,592	-24.0	33	265	6.8
300	31	9,698	-32.4		264	8.7
250	31	10,957	-42.3		290	10.9
200	31	12,427	-54.1		298	12.8
175	31	13,271	-60.2		313	11.7
150	31	14,219	-66.1		334	10.5
125	31	15,312	-70.5		15	7.2
100	30	16,631	-70.3		61	6.8
80	30	17,967	-66.4		75	16.1
70	29	18,781	-63.9		79	19.6
60	29	19,728	-60.9		87	26.8
50	28	20,870	-57.8		91	31.5
40	27	22,288	-54.3		93	32.6
30	27	24,144	-51.0		93	34.2
25	25	25,334	-49.1		94	34.8
20	24	26,803	-47.0		86	34.8
15	22	28,724	-44.3		83	38.9
10	20	31,469	-39.3		90	49.9
7	14	33,939	-35.0			
5						

KING SALMON, ALASKA
1011 MB

Standard pressure surface (mb)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind	
					Direction	Speed
SURFACE	31	15	10.0	91	181	4.1
1000	31	106	9.9	89	202	5.6
950	31	531	8.6	84	211	7.2
900	31	978	6.5	81	220	7.6
850	31	1,446	4.2	76	232	7.8
800	31	1,938	2.3	71	244	8.4
750	31	2,456	.1	69	252	9.5
700	31	3,009	-2.6	64	255	10.7
650	31	3,589	-5.8	56	259	11.9
600	31	4,219	-9.1	50	255	13.4
550	31	4,882	-13.4	45	254	15.0
500	31	5,607	-17.8	42	256	15.3
450	31	6,384	-22.9	43	261	18.8
400	31	7,242	-28.9	41	265	20.4
350	31	8,185	-35.6		266	23.5
300	31	9,241	-43.3		272	27.8
250	31	10,450	-49.3		274	28.6
200	31	11,910	-50.2		272	26.6
175	31	12,780	-50.9		267	23.7
150	31	13,782	-51.3		270	20.4
125	30	14,956	-52.2		269	17.7
100	30	16,401	-52.0		271	12.6
80	29	17,849	-51.8		274	8.2
70	29	18,718	-51.6		270	8.2
60	29	19,717	-51.5		269	5.1
50	29	20,902	-51.4		275	2.9
40	29	22,356	-50.4		305	1.6
30	29	24,241	-48.8		61	1.4
25	29	25,443	-47.6		58	2.3
20	27	26,930	-46.0		62	3.3
15	19	28,859	-43.3		44	2.9
10	6	31,589	-39.5			
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KOTZEBUE, ALASKA
1008 MB

Standard pressure surface (mb)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind	
					Direction	Speed
SURFACE	30	5	11.6	87	261	2.9
1000	30	71	11.4	85	248	3.5
950	30	497	9.2	79	221	5.4
900	30	945	6.6	75	222	7.2
850	30	1,413	4.2	73	214	7.4
800	30	1,904	1.3	73	221	7.6
750	30	2,421	-1.9	69	216	7.8
700	30	2,967	-4.8	65	222	8.2
650	30	3,542	-8.1	59	221	8.9
600	30	4,164	-11.8	54	222	9.7
550	30	4,822	-15.9	47	221	11.7
500	30	5,537	-20.9	45	222	12.2
450	30	6,303	-26.2	46	216	12.8
400	30	7,150	-32.3	46	216	12.8
350	30	8,078	-39.2		216	14.2
300	30	9,119	-46.1		213	16.3
250	30	10,314	-51.3		216	18.5
200	30	11,769	-49.4		225	17.3
175	30	12,645	-48.6		237	17.3
150	30	13,659	-48.7		242	16.3
125	30	14,856	-48.9		238	12.8
100	30	16,321	-48.9		244	9.7
80	30	17,787	-48.7		240	6.8
70	30	18,661	-48.8		240	6.0
60	30	19,677	-49.0		246	4.5
50	30	20,873	-49.1		243	2.3
40	30	22,336	-48.9		262	1.6
30	30	24,229	-47.8		275	1.4
25	30	25,434	-46.6		342	.6
20	29	26,914	-44.9		97	.6
15	26	28,861	-42.1		134	1.7
10	7	31,684	-37.6			
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LAKE CHARLES, LA.
1015 MB

Standard pressure surface (mb)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind	
					Direction	Speed
SURFACE	31	5	24.3	96	326	.6
1000	31	135	25.9	86	250	2.5
950	31	587	24.6	76	215	6.0
900	31	1,061	22.1	70	194	5.8
850	31	1,558	19.4	67	184	5.4
800	31	2,078	16.3	62	159	3.1
750	31	2,624	12.8	58	108	1.7
700	31	3,202	9.3	51	41	2.5
650	31	3,810	5.7	49	45	3.5
600	31	4,464	1.8	45	42	4.7
550	31	5,156	-2.4	42	45	4.9
500	31	5,912	-6.5	38	37	4.5
450	31	6,725	-11.3	36	22	5.1
400	31	7,623	-17.3	32	12	5.8
350	31	8,611	-24.2		8	5.8
300	31	9,717	-32.4		342	3.7
250	31	10,975	-42.2		268	4.1
200	31	12,447	-53.8		283	3.5
175	31	13,293	-59.9		284	2.5
150	30	14,242	-65.8		314	1.6
125	29	15,334	-70.5		42	6.8
100	29	16,653	-71.2		76	11.1
80	29	17,986	-67.2		81	18.8
70	29	18,808	-64.5		84	24.9
60	29	19,747	-61.0		88	24.3
50	29	20,888	-58.4		89	30.1
40	28	22,302	-55.3		91	31.5
30	24	24,145	-51.5		89	34.2
25	22	25,329	-50.0		88	35.4
20	16	26,783	-48.3		91	35.2
15	6	28,718	-45.4			
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LANDER, WYO.
832 MB

Standard pressure surface (mb)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind	
					Direction	Speed
SURFACE	31	1,696	13.9	48	256	3.1
1000	31	108				
950	31	551				
900	31	1,017				
850	31	1,509				
800	31	2,025	16.5	35	244	3.9
750	31	2,565	13.2	36	245	5.8
700	31	3,147	9.2	37	253	11.1
650	31	3,750	4.7	36	261	16.3
600	31	4,404	.0	37	266	23.9
550	31	5,085	-5.2	41	266	27.0
500	31	5,837	-10.7	37	261	29.7
450	31	6,632	-16.2		257	29.9
400	31	7,516	-22.9		258	30.1
350	31	8,481	-30.1		258	36.5
300	31	9,561	-38.1		259	42.6
250	31	10,792	-47.0		258	48.2
200	31	12,246	-53.7		259	52.8
175	31	13,099	-56.6		259	50.3
150	31	14,070	-59.9		258	40.4
125	30	15,201	-62.8		261	31.1
100	30	16,571	-63.9		260	17.7
80	30	17,949	-60.7		256	6.2
70	30	18,787	-58.3		327	.8
60	30	19,759	-56.4		89	3.3
50	29	20,920	-55.2		86	5.2
40	28	22,353	-53.2		86	9.7
30	27	24,221	-50.8		80	13.8
25	26	25,411	-49.2		85	15.7
20	24	26,882	-47.0		83	15.7
15	10	28,792	-44.0			
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LAS VEGAS, NEV.
936 MB

Standard pressure surface (mb)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind	
					Direction	Speed
SURFACE	31	660	26.2	18	215	6.0
1000	31	71				
950	31	527				
900	31	1,010	28.5	16	215	6.8
850	31	1,513	25.5	17	240	8.7
800	31	2,041	21.5	19	231	10.7
750	31	2,590	17.2	21	217	12.6
700	31	3,179	12.2	26	205	12.0
650	31	3,786	7.1	30	205	13.2
600	31	4,446	2.0	33	208	14.2
550	31	5,130	-3.1		219	14.6
500	31	5,888	-8.5		231	15.3
450	31	6,689	-14.2		238	16.5
400	31	7,580	-20.4		241	20.2
350	31	8,555	-27.3		242	22.3
300	31	9,647	-35.0		241	27.2
250	31	10,895	-43.8		242	34.2
200	31	12,361	-53.5		243	38.1
175	31	13,209	-58.7		251	32.1
150	31	14,165	-63.9		245	28.0
125	31	15,269	-68.1		247	20.0
100	31	16,605	-68.3		242	9.9
80	31	17,954	-64.8		171	1.4
70	31	18,776	-61.9		93	5.1
60	30	19,733	-59.2		96	11.1
50	30	20,882	-56.7		94	14.6
40	30	22,304	-54.5		89	18.3
30	28	24,154	-52.1		86	22.2
25	28	25,340	-50.1		91	25.1
20	25	26,806	-48.1		94	25.1
15	17	28,702	-46.2		87	28.0
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LIHUE, HAWAII
1014 MB

Standard pressure surface (mb)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind	
					Direction	Speed
SURFACE	31	36	24.3	78	57	10.7
1000	31	162	23.3	78	63	13.4
950	31	606	19.9	80	70	15.7
900	31	1,073	16.5	81	74	16.1
850	31	1,558	13.2	82	75	15.7
800	31	2,066	10.8	68	81	15.2
750	31	2,602	8.7	45	91	12.8
700	31	3,172	7.2		90	7.8
650	31	3,777	4.9		96	3.9
600	31	4,428	1.2		214	1.0
550	31	5,116	-2.8		255	5.6
500	31	5,872	-7.7		261	9.5
450	30	6,681	-13.2		263	12.6
400	30	7,571	-19.8		263	17.1
350	30	8,548	-27.0		262	21.8
300	30	9,640	-35.6		271	26.8
250	30	10,883	-45.6		274	34.0
200	30	12,334	-56.7		274	42.0
175	30	13,169	-62.1		273	40.6
150	30	14,113	-65.8		272	32.3
125	30	15,213	-68.4		262	22.3
100	29	16,543	-70.5		245	8.2
80	28	17,873	-68.4		103	12.8
70	28	18,676	-66.3		93	21.8
60	28	19,614	-64.0		88	29.3
50	28	20,739	-61.0		92	35.0
40	28	22,136	-57.9		91	39.2
30	28	23,965	-54.3		90	43.3
25	27	25,139	-52.4		89	47.2
20	26	26,589	-50.1		91	49.4
15	26	28,478	-47.8		92	48.0
10	23	31,186	-42.9		91	51.5
7	16	33,589	-40.4		90	58.1
5	7	35,879	-37.5			

See reference note at end of table

RAWINSONDE DATA

Average monthly values

LITTLE ROCK, ARK. 1006 MB

Standard pressure surface (mb.)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind Direction	Wind Speed
SURFACE	31	79	21.6	85		.0
1000	31	132	22.4	80	188	1.0
950	31	584	23.6	65	193	5.2
900	31	1,054	21.4	62	226	5.4
850	31	1,548	18.6	58	253	6.6
800	31	2,066	15.7	51	266	8.0
750	31	2,607	12.6	47	285	6.8
700	31	3,188	9.1	46	320	5.6
650	31	3,795	5.2	46	330	5.1
600	31	4,448	1.0	43	327	4.9
550	31	5,137	- 3.2	39	318	5.2
500	31	5,892	- 7.7	30	311	6.6
450	31	6,701	-12.6		308	8.7
400	31	7,596	-18.2		307	11.7
350	31	8,578	-25.3		306	13.8
300	31	9,679	-33.4		303	15.9
250	31	10,934	-42.9		298	15.3
200	31	12,404	-53.6		295	16.3
175	31	13,252	-59.2		304	14.8
150	31	14,205	-64.7		304	12.0
125	31	15,306	-68.6		303	6.8
100	31	16,639	-69.2		347	1.9
80	31	17,984	-65.5		77	7.8
70	31	18,804	-62.9		82	9.5
60	31	19,757	-60.2		86	14.2
50	31	20,904	-57.0		93	19.4
40	30	22,322	-54.6		93	22.9
30	28	24,174	-51.7		91	23.7
25	25	25,359	-49.6		91	24.1
20	24	26,826	-47.4		90	27.8
15	19	28,730	-44.7		90	30.9
10	7	31,447	-40.7			
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MCGRATH, ALASKA 999 MB

Standard pressure surface (mb.)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind Direction	Wind Speed
SURFACE	31	103	10.2	89	194	2.7
1000	31	94	10.1	85	196	4.9
950	31	523	10.7	72	219	10.5
900	31	972	7.9	72	221	11.5
850	31	1,441	4.9	74	218	12.8
800	31	1,934	2.1	75	215	13.6
750	31	2,449	- .8	73	214	13.0
700	31	3,001	- 3.8	67	217	12.4
650	31	3,577	- 7.3	61	207	11.5
600	31	4,202	-11.0	54	210	11.7
550	31	4,862	-14.9	51	221	13.8
500	31	5,582	-19.3	44	232	12.0
450	31	6,348	-24.5	42	239	12.8
400	31	7,206	-30.3	42	242	14.0
350	31	8,142	-37.2		249	14.2
300	31	9,190	-44.4		253	12.8
250	31	10,392	-50.5		262	16.9
200	30	11,851	-49.9		265	8.5
175	30	12,725	-49.3		269	8.9
150	30	13,735	-49.5		262	10.1
125	30	14,927	-50.1		256	11.1
100	30	16,383	-50.3		261	11.3
80	30	17,840	-50.0		260	5.8
70	30	18,718	-50.1		259	5.1
60	29	19,721	-50.0		256	4.3
50	29	20,912	-50.0		259	3.7
40	27	22,377	-49.3		301	2.1
30	26	24,270	-47.8		30	2.7
25	26	25,476	-46.8		66	2.5
20	23	26,978	-44.9		45	2.5
15	16	28,925	-42.4		92	7.0
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MAJURO, MARSHALL IS. 1011 MB

Standard pressure surface (mb.)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind Direction	Wind Speed
SURFACE	31	3	26.8	83	77	5.2
1000	31	103	26.1	83	82	6.6
950	31	549	23.3	82	85	9.4
900	31	1,026	20.3	81	92	11.9
850	31	1,519	17.5	74	93	13.0
800	31	2,037	14.9	76	94	12.0
750	31	2,581	12.3	73	93	13.0
700	31	3,159	9.4	72	93	13.8
650	31	3,770	6.1	71	88	14.2
600	30	4,425	2.4	62	90	13.3
550	30	5,114	- 1.5	57	90	16.3
500	30	5,879	- 5.9	52	91	15.2
450	30	6,697	-10.4	48	95	15.0
400	30	7,595	-16.6	42	96	13.8
350	30	8,585	-23.6	37	88	11.1
300	30	9,693	-32.1	37	103	8.5
250	30	10,953	-42.5		89	7.6
200	30	12,421	-54.9		72	6.0
175	30	13,261	-61.7		15	2.7
150	30	14,199	-69.3		273	3.1
125	30	15,267	-76.3		263	2.1
100	29	16,550	-76.5		106	5.8
80	29	17,849	-72.2		100	6.8
70	28	18,638	-69.1		91	10.5
60	28	19,565	-66.3		89	13.0
50	28	20,678	-63.2		88	19.0
40	28	22,060	-60.5		67	38.9
30	27	23,869	-56.3		86	56.9
25	27	25,034	-53.9		89	64.0
20	27	26,475	-51.1		89	70.7
15	23	28,368	-47.5		89	74.2
10	9	31,109	-41.4			
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MEDFORD, OREG. 970 MB

Standard pressure surface (mb.)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind Direction	Wind Speed
SURFACE	31	401	13.2	80	300	1.4
1000	31	146				
950	31	584	15.7	67	296	3.3
900	31	1,039	14.5	63	295	1.9
850	31	1,521	12.7	61	262	.6
800	31	2,029	10.8	53	211	3.3
750	31	2,564	8.4	46	226	9.1
700	31	3,132	5.5	35	224	11.3
650	31	3,728	2.0	34	233	13.2
600	31	4,376	- 1.6	35	241	16.9
550	31	5,054	- 6.1		243	18.5
500	31	5,864	-10.8		252	19.4
450	31	6,594	-16.3		257	22.3
400	31	7,483	-23.0		258	22.9
350	31	8,448	-30.4		256	24.5
300	31	9,524	-39.0		259	25.5
250	31	10,751	-48.2		260	28.4
200	31	12,196	-55.2		255	34.8
175	31	13,044	-57.1		250	36.7
150	31	14,017	-58.7		249	32.8
125	31	15,157	-60.6		252	25.5
100	31	16,543	-61.5		250	17.1
80	31	17,932	-59.4		259	6.2
70	31	18,771	-58.1		259	1.0
60	31	19,744	-56.6		95	3.5
50	30	20,903	-55.2		83	4.7
40	30	22,333	-53.2		86	7.4
30	30	24,194	-51.1		87	11.7
25	30	25,382	-49.8		91	12.6
20	30	26,849	-47.7		88	15.5
15	29	28,761	-45.1		90	17.1
10	26	31,492	-41.0		95	20.0
7	22	33,943	-37.0		98	26.6
5	16	36,286	-32.5			

MERIDA, MEXICO 1014 MB

Standard pressure surface (mb.)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind Direction	Wind Speed
SURFACE	31	11	22.4	97	126	7.4
1000	31	129	24.1	87	132	9.1
950	31	579	23.2	77	143	12.0
900	31	1,052	20.7	71	132	13.9
850	31	1,546	18.1	68	124	9.5
800	31	2,063	15.2	63	117	7.2
750	31	2,598	12.2	56	118	6.0
700	31	3,184	8.9	53	124	6.4
650	31	3,783	5.5	52	107	6.4
600	31	4,446	1.7	54	91	6.6
550	31	5,123	- 2.4	50	82	8.5
500	31	5,873	- 6.9	48	78	10.2
450	31	6,698	-11.8	41	74	10.7
400	31	7,604	-17.7	46	76	11.7
350	31	8,590	-24.3	29	72	11.5
300	31	9,696	-32.4		73	10.3
250	31	10,955	-42.4		76	9.9
200	31	12,424	-54.5		78	13.0
175	31	13,267	-61.1		67	13.8
150	31	14,209	-67.6		77	14.8
125	31	15,292	-72.4		72	17.3
100	31	16,602	-72.8		75	23.3
80	31	17,920	-69.0		87	26.8
70	31	18,723	-66.2		84	28.0
60	31	19,663	-63.3		90	32.6
50	30	20,792	-60.1		92	38.3
40	30	22,199	-56.1		96	40.6
30	28	24,040	-52.1		93	44.7
25	25	25,228	-49.8		90	45.1
20	19	26,698	-46.9		92	46.6
15	15	28,608	-45.1			
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MIAMI, FLA. 1015 MB

Standard pressure surface (mb.)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind Direction	Wind Speed
SURFACE	31	4	25.6	86	124	1.4
1000	31	136	26.4	80	139	3.5
950	31	587	23.4	80	149	7.4
900	31	1,059	20.2	77	157	7.8
850	31	1,552	17.2	74	153	7.4
800	31	2,068	14.3	69	152	5.8
750	31	2,605	11.5	64	154	5.1
700	31	3,187	8.5	61	150	4.1
650	31	3,792	5.1	57	167	4.1
600	31	4,448	1.4	52	177	3.3
550	31	5,136	- 2.6	49	197	2.7
500	31	5,896	- 7.0	48	213	1.0
450	31	6,705	-11.7	43	249	1.0
400	31	7,606	-17.4	38	25	1.7
350	31	8,593	-24.3	38	63	3.7
300	31	9,698	-32.6	32	48	6.8
250	31	10,956	-42.7		48	10.5
200	31	12,423	-55.0		46	13.0
175	30	13,264	-61.7		43	16.1
150	30	14,204	-68.0		40	16.5
125	30	15,287	-72.2		55	15.0
100	30	16,602	-71.8		75	16.1
80	30	17,927	-68.3		79	20.2
70	30	18,742	-65.6		80	25.5
60	30	19,677	-62.7		86	32.4
50	29	20,809	-59.4		92	35.4
40	27	22,221	-56.4		93	39.1
30	26	24,065	-52.3		93	43.1
25	24	25,252	-49.4		92	41.6
20	24	26,725	-46.8		88	41.6
15	23	28,641	-44.5		86	43.7
10	19	31,376	-41.3		89	54.4
7	8	33,812	-37.9			
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MIDLAND, TEXAS 917 MB

Standard pressure surface (mb.)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind Direction	Wind Speed
SURFACE	30	874	21.2	62	162	3.7
1000	30	108				
950	30	560				
900	30	1,034	24.8	50	177	10.5
850	30	1,535	22.9	44	188	18.3
800	30	2,060	19.6	42	188	9.5
750	30	2,608	15.7	42	134	2.7
700	30	3,193	11.2	44	49	4.3
650	30	3,805	7.1	41	43	7.0
600	30	4,460	2.5	38	51	7.6
550	30	5,151	- 2.3	37	55	7.2
500	30	5,908	- 7.1		49	6.4
450	30	6,717	-12.2		61	4.1
400	30	7,613	-18.6		41	4.5
350	30	8,595	-25.6		13	4.5
300	30	9,694	-33.9		10	5.8
250	30	10,945	-43.6		354	6.4
200	30	12,410	-54.4		328	5.8
175	30	13,254	-60.0		335	7.2
150	30	14,203	-65.7		340	5.8
125	30	15,295	-71.0		357	3.1
100	30	16,612	-70.6		65	4.7
80	30	17,946	-67.1		91	12.6
70	30	18,765	-64.7		90	15.3
60	29	19,704	-61.7		90	19.4
50	28	20,839	-58.6		97	24.5
40	28	22,250	-55.5		92	27.4
30	28	24,094	-52.6		90	31.5
25	27	25,278	-50.0		90	34.6
20	27	26,744	-47.4		93	32.4
15	27	28,658	-44.7		89	35.9
10	26	31,396	-41.2		90	42.6
7	18	33,861	-37.5		89	49.2
5	9	36,174	-34.3			

MONTGOMERY, ALA. 1009 MB

Standard pressure surface (mb.)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind Direction	Wind Speed
SURFACE	31	61	23.1	83	95	.6
1000	31	142	23.4	82		.0
950	31	593	23.7	71	248	1.4
900	31	1,065	20.8	69	257	2.3
850	31	1,558	17.6	69	257	1.7
800	31	2,074	14.2	69	319	1.4
750	31	2,612	11.4	62	333	4.1
700	31	3,192	8.2	59	331	5.8
650	31	3,796	4.8	50	340	6.2
600	31	4,450	1.2	46	328	5.8
550	31	5,140	- 2.9	44	320	6.0
500	31	5,895	- 7.1	37	310	6.6
450	31	6,706	-12.0	34	309	6.8
400	31	7,603	-17.5		311	9.7
350	31	8,589	-24.4		308	11.1
300	31	9,695	-32.6		300	12.0
250	31	10,954	-42.5		296	15.9
200	30	12,423	-54.0		294	18.3
175	30	13,268	-60.0		302	15.9
150	30	14,218	-65.5		312	12.0
125	30	15,316	-69.8		346	8.0
100	30	16,640	-70.1		56	5.1
80	30	17,979	-66.2		71	13.2
70	30	18,800	-63.1		81	16.9
60	30	19,750	-60.1		84	21.0
50	30	20,896	-57.4		91	25.8
40	30	22,315	-54.8		92	28.6
30	28	24,170	-51.4		94	30.7
25	28	25,360	-49.4		91	30.7
20	26	26,829	-47.4		90	33.2
15	16	28,742	-44.8		87	38.7
10						
7						
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NANTUCKET, MASS. 1015 MB

Standard pressure surface (mb.)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind Direction	Wind Speed
SURFACE	31	14	17.9	93	7	2.1
1000	31	142	18.2	84	322	2.3
950	31	582	16.8	75	322	4.5
900	31	1,042	14.7	71	285	5.8
850	31	1,525	12.9	59	276	7.4
800	31	2,033	11.0	50	279	8.5
750	31	2,568	8.7	42	275	10.3
700	31	3,138	5.6	41	267	12.6
650	31	3,739	2.2	39	269	13.6
600	31	4,383	- 1.2	33	267	15.3
550	31	5,067	- 5.0		261	18.1
500	31	5,816	- 9.6		258	19.6
450	31	6,614	-15.0		258	20.6
400	31	7,503	-21.3	33	251	21.2
350	31	8,475	-28.2		248	23.5
300	31	9,563	-36.6		240	28.6
250	31	10,802	-46.1		236	34.4
200	31	12,255	-54.4		249	37.9
175	31	13,106	-56.8		253	33.0
150	31	14,077	-59.5		251	29.0
125	30	15,211	-62.0		255	22.5
100	30	16,591	-61.8		261	12.6
80	28	17,987	-59.4		253	5.6
70	28	18,830	-57.6		215	2.1
60	27	19,803	-56.0		96	3.1
50	27	20,966	-54.4		91	8.7
40	27	22,401	-52.7		92	13.0
30	27	24,268	-50.1		89	16.1
25	27	25,465	-47.9		86	17.9
20	26	26,947	-45.6		83	19.6
15	21	28,868	-42.4		86	23.3
10	17	31,629	-37.5		88	26.8
7	5	34,078	-33.3			
5						

NASHVILLE, TENN. 996 MB

Standard pressure surface (mb.)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind Direction	Wind Speed
SURFACE	31	177	20.5	86	213	1.4
1000	31	137				
950	31	586	22.3	64	230	4.3
900	31	1,055	19.9	64	241	5.6
850	31	1,546	16.8	61	255	7.2
800	31	2,061	13.8	56	266	7.6
750	31	2,602	10.9	50	274	8.4
700	31	3,176	8.1	43	291	6.6
650	31	3,782	4.5	39	293	8.9
600	31	4,431	.5		292	9.1
550	31	5,118	- 3.8		294	9.5
500	31	5,871	- 8.4		292	10.3
450	31	6,680	-13.5		289	12.2
400	31	7,569	-19.5		292	14.2
350	31	8,549	-25.9		298	19.4
300	31	9,647	-33.9		296	22.9
250	31	10,901	-43.1		294	26.8
200	31	12,371	-53.6		296	26.8
175	31	13,219	-59.0		294	26.0
150	30	14,173	-64.1		298	23.1
125	30	15,281	-67.5		301	13.6
100	30	16,621	-68.1		307	7.6
80	30	17,971	-64.5		45	6.4
70	30	18,799	-62.3		72	10.5
60	30	19,752	-59.0		85	14.4
50	30	20,904	-56.3		89	17.3
40	30	22,330	-53.6		92	21.2
30	30	24,194	-50.4		88	22.3
25	28	25,485	-48.7		88	24.9
20	27	26,858	-46.6		88	26.0
15	24	28,774	-44.0		88	29.3
10	23	31,524	-39.0		88	35.2
7	23	33,994	-35.8		87	38.7
5	12	36,331	-32.6			

N. Y. INT. AP. IDLEWILD 1017 MB

Standard pressure surface (mb.)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind Direction	Wind Speed
SURFACE	31	5	19.8	86	301	1.9
1000	31	150	19.1	79	306	2.7
950	31	591	17.5	69	305	3.3
900	31	1,052	15.2	69	284	4.5
850	31	1,535	12.9	65	281	5.6
800	31	2,043	10.7	57	288	9.7
750	31	2,581	8.3	48	288	11.7
700	31	3,147	5.4	43	286	13.0
650	31	3,747	1.9	41	281	13.4
600	31	4,391	- 1.6		280	15.5
550	31	5,072	- 5.8		274	16.1
500	31	5,820	-10.3		268	18.3
450	31	6,624	-15.6		263	19.6
400	31	7,502	-21.7		261	21.0
350	31	8,473	-28.5		267	22.7
300	31	9,558	-36.8		263	24.7
250	31	10,795	-45.9		265	28.0
200	31	12,253	-53.7		266	35.9
175	30	13,108	-56.6		269	33.6
150	30	14,080	-59.5		271	26.2
125	29	15,214	-62.0		266	23.1
100	29	16,593	-62.2		268	13.0
80	29	17,978	-59.9		266	4.7
70	29	18,823	-58.1		269	1.4
60	29	19,789	-56.5		78	4.5
50	29	20,951	-54.6		94	9.7
40	29	22,385	-52.8		93	13.2
30	29	24,250	-50.2		92	15.9
25	28	25,444	-48.3		89	16.1
20	20	26,937	-45.3		91	17.7
15	9	28,866	-41.7			
10						
7						
5						

NOME, ALASKA 1008 MB

Standard pressure surface (mb.)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind Direction	Wind Speed
SURFACE	31	7	9.3	88	343	1.7
1000	31	75	9.8	81	309	1.4
950	31	498	8.0	79	187	3.3
900	31	945	5.8	76	194	5.4
850	31	1,411	3.7	74	204	5.1
800	31	1,902	1.0	74	188	5.8
750	31	2,417	- 1.9	70	190	7.0
700	31	2,964	- 4.8	61	194	6.6
650	31	3,538	- 7.9	59	192	7.4
600	31	4,163	-11.6	54	201	6.0
550	31	4,818	-15.9	52	206	7.2
500	31	5,537	-20.6	50	213	9.7
450	31	6,300	-26.0	50	222	11.9
400	31	7,152	-31.9	49	223	14.8
350	31	8,082	-38.5		233	16.9
300	31	9,127	-45.1		238	24.5
250	31	10,328	-50.6		236	27.4
200	31	11,787	-48.7		239	23.5
175	31	12,665	-48.3		241	21.8
150	31	13,679	-48.8		242	18.7
125	31	14,874	-49.6		244	17.7
100	31	16,335	-49.3		248	13.0
80	31	17,797	-49.4		245	8.7
70	31	18,669	-49.4		240	7.0
60	31	19,680	-49.5		239	5.4
50	31	20,872	-49.9		226	3.9
40	30	22,336	-49.6		211	1.9
30	29	24,225	-47.9		269	.8
25	27	25,434	-46.6		53	.6
20	24	26,930	-44.9		70	2.7
15	21	28,845	-43.1		53	2.3
10	6	31,675	-39.2			
7						
5						

NORFOLK, VA. 1016 MB

Standard pressure surface (mb.)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind Direction	Wind Speed
SURFACE	31	9	21.3	89	25	1.0
1000	31	147	21.7	83	21	1.0
950	31	591	20.3	70	342	3.5
900	31	1,058	17.6	67	324	3.3
850	31	1,544	14.6	66	314	4.5
800	31	2,055	11.9	60	306	5.6
750	31	2,590	9.8	50	294	6.8
700	31	3,164	6.8	48	283	8.7
650	31	3,766	3.5	42	276	9.1
600	31	4,415	[illegible]	40	281	10.9
550	31	5,099	- 4.0		281	10.9
500	31	5,853	- 8.6		274	13.2
450	31	6,656	-13.8		272	16.3
400	31	7,548	-20.0		271	16.9
350	31	8,524	-26.8		265	19.6
300	31	9,618	-34.8		267	24.3
250	31	10,865	-44.1		271	29.5
200	31	12,328	[illegible]		273	30.3
175	31	13,175	-59.1		273	27.8
150	31	14,131	-63.1		275	23.5
125	31	15,245	-65.4		276	17.7
100	31	16,601	-65.5		286	9.5
80	31	17,968	-62.4		55	5.6
70	31	18,799	-60.6		81	7.2
60	30	19,760	[illegible]		87	11.9
50	30	20,913	-56.4		87	17.5
40	29	22,340	-53.4		88	21.0
30	29	24,208	-49.9		91	22.9
25	29	25,405	-48.3		93	24.5
20	23	26,881	-46.1		89	24.9
15	15	28,805	-43.5		85	28.2
10						
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NORTH PLATTE, NEBR. 918 MB

Standard pressure surface (mb.)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind Direction	Wind Speed
SURFACE	31	848	15.9	80	357	1.2
1000	31	[illegible]				
950	31	547				
900	31	1,012	18.2	69	189	2.5
850	31	1,505	19.5	50	231	7.4
800	31	2,026	17.7	42	265	10.1
750	31	2,571	14.5	41	279	13.4
700	31	3,154	10.4	40	282	14.2
650	31	3,762	5.7	42	282	15.3
600	31	4,415	.6	43	283	16.3
550	31	5,096	- 4.6	43	281	17.5
500	31	5,850	-10.0	41	278	18.7
450	31	6,650	-15.1	37	274	20.4
400	31	7,536	-21.5	36	274	25.5
350	31	8,507	-28.3		272	29.3
300	31	9,595	-36.2		271	36.7
250	31	10,847	-44.9		270	42.0
200	31	12,300	-53.7		272	45.5
175	31	13,149	-58.2		274	43.9
150	31	14,110	-62.4		274	39.2
125	31	[illegible]	-65.0		276	26.6
100	31	16,583	-66.4		265	14.4
80	30	17,947	-61.6		273	4.5
70	30	18,783	-59.7		213	1.0
60	30	19,748	-57.[illegible]		[illegible]	4.3
50	[illegible]	[illegible]	-54.[illegible]		97	7.6
40	[illegible]	22,344	-52.9		95	10.5
30	28	24,210	-50.6		85	13.2
25	28	[illegible]	-48.9		85	15.2
20	28	26,877	-46.4		85	17.[illegible]
15	26	[illegible]	-43.6		86	18.7
10	25	31,549	-39.6		85	21.4
7	[illegible]	34,01[illegible]	-35.5		[illegible]	24.1
5	[illegible]	36,371	[illegible]			

OAKLAND, CALIF. 1014 MB

Standard pressure surface (mb.)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind Direction	Wind Speed
SURFACE	31	6	14.5	84	267	3.3
1000	31	126	14.1	83	254	4.7
950	31	568	16.6	65	261	7.2
900	31	1,025	19.4	36	284	8.4
850	31	1,515	18.6	25	270	7.2
800	31	2,032	16.1	22	242	6.4
750	31	2,573	13.0	22	230	8.0
700	31	3,154	9.5		229	9.9
650	31	3,758	5.6		227	10.[illegible]
600	31	4,414	1.3	24	234	12.0
550	31	5,095	- 3.8	27	238	14.[illegible]
500	31	5,853	- 9.0		243	15.[illegible]
450	31	6,654	-14.7		[illegible]	18.7
400	31	7,543	-21.4		[illegible]	[illegible]
350	31	8,514	-28.6		243	24.2
300	31	9,601	-36.8		[illegible]	27.3
250	31	10,841	-45.[illegible]		[illegible]	34.6
200	31	12,306	[illegible]		238	43.5
175	31	13,159	-57.[illegible]		[illegible]	42.7
150	31	14,126	-61.0		[illegible]	37.7
125	31	15,251	[illegible]		243	28.8
100	31	16,615	[illegible]		248	14.[illegible]
80	31	17,983	[illegible]		[illegible]	2.3
70	31	18,819	[illegible]		119	3.5
60	[illegible]	19,779	[illegible]		92	[illegible]
50	[illegible]	20,935	[illegible]		92	11.3
40	[illegible]	22,362	[illegible]		88	14.8
30	[illegible]	24,220	-51.[illegible]		89	[illegible]
25	[illegible]	[illegible]	[illegible]		[illegible]	[illegible]
20	[illegible]	26,873	[illegible]		[illegible]	33.1
15	[illegible]	[illegible]	[illegible]		85	31.7
10	[illegible]	31,512	-41.4		89	29.1
7	[illegible]	[illegible]	-38.2		94	32.4
5	[illegible]	[illegible]	[illegible]			

See reference note at end of table

RAWINSONDE DATA

Average monthly values

OKLAHOMA CITY, OKLA. 970 MB

Standard pressure surface (mb)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind Direction	Wind Speed
SURFACE	31	392	21.7	73	165	4.7
1000	31	123				
950	31	578	24.4	58	182	10.7
900	31	1,047	24.0	46	216	15.9
850	31	1,545	21.1	43	235	13.6
800	31	2,066	17.5	44	249	10.5
750	31	2,613	13.8	43	266	7.0
700	31	3,192	9.9	38	275	5.2
650	31	3,800	5.7	36	304	2.9
600	31	4,454	1.3	34	324	4.1
550	31	5,142	- 3.3	32	344	5.2
500	31	5,896	- 7.8		327	5.1
450	31	6,704	-12.9		311	8.0
400	31	7,596	-19.1		301	9.1
350	31	8,576	-26.1		303	12.4
300	31	9,673	-34.2		300	13.8
250	31	10,924	-43.6		300	15.3
200	31	12,391	-54.1		290	15.9
175	31	13,238	-59.5		291	14.8
150	30	14,192	-65.0		286	13.2
125	30	15,291	-69.2		284	8.7
100	30	16,623	-69.3		302	3.1
80	30	17,970	-65.0		70	5.6
70	30	18,796	-62.5		86	8.7
60	30	19,748	-59.9		87	12.8
50	30	20,897	-56.6		94	18.5
40	30	22,323	-54.3		92	20.8
30	29	24,178	-52.6		91	23.3
25	29	25,368	-49.6		91	24.5
20	27	26,842	-46.9		80	26.6
15	16	28,765	-44.4		88	27.4
10						
7						
5						

OLYMPIA, WASH. 1010 MB

Standard pressure surface (mb)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind Direction	Wind Speed
SURFACE	31	58	12.2	89	229	4.1
1000	31	146	13.3	82	228	4.3
950	31	580	12.8	76	226	5.1
900	31	1,031	11.1	74	243	5.2
850	31	1,507	8.9	68	250	7.4
800	31	2,006	6.4	62	249	8.9
750	31	2,533	3.7	55	256	10.1
700	31	3,091	.7	53	258	12.6
650	31	3,681	- 2.4	46	253	15.0
600	31	4,314	- 6.1	41	250	17.9
550	31	4,983	- 9.8	40	252	19.2
500	31	5,719	-14.3	38	253	21.8
450	31	6,507	-19.4	35	257	24.1
400	31	7,376	-25.6		261	25.5
350	31	8,330	-32.5		266	27.4
300	31	9,397	-40.7		271	30.1
250	31	10,615	-48.9		276	33.4
200	31	12,059	-54.0		267	33.6
175	31	12,915	-54.3		268	29.1
150	31	13,900	-55.4		261	28.2
125	31	15,058	-56.9		260	21.4
100	31	16,469	-57.3		259	15.2
80	31	17,884	-56.6		263	8.2
70	30	18,739	-56.0		251	4.1
60	30	19,715	-55.1		231	.6
50	30	20,883	-54.0		54	2.1
40	30	22,320	-52.5		86	2.7
30	30	24,188	-50.3		79	4.5
25	28	25,384	-48.9		78	7.2
20	27	26,854	-47.2		83	8.4
15	19	28,774	-44.3		86	10.5
10	5	31,531	-40.6			
7						
5						

OMAHA, NEBR. 967 MB

Standard pressure surface (mb)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind Direction	Wind Speed
SURFACE	31	403	17.7	89	110	2.7
1000	31	115				
950	31	560	20.4	74	122	4.1
900	31	1,026	20.6	55	229	7.2
850	31	1,519	18.5	45	250	11.1
800	31	2,046	15.7	44	268	12.4
750	31	2,578	12.3	44	275	13.4
700	31	3,156	8.6	45	282	15.5
650	31	3,760	4.3	45	283	16.5
600	31	4,412	.3	43	283	17.7
550	31	5,095	- 4.5	44	281	19.2
500	31	5,848	- 9.8	42	281	20.0
450	31	6,647	-14.8		283	19.6
400	31	7,537	-20.9		283	21.2
350	31	8,510	-28.0		279	24.7
300	31	9,599	-35.9		283	32.4
250	31	10,842	-44.8		280	38.3
200	31	12,302	-54.2		277	44.9
175	31	13,150	-57.9		281	43.9
150	31	14,113	-62.0		281	37.5
125	31	15,230	-65.4		278	28.2
100	31	16,587	-64.9		275	17.9
80	31	17,958	-61.5		271	7.8
70	30	18,796	-60.0		288	4.5
60	30	19,757	-57.5		57	1.7
50	30	20,915	-55.5		98	3.7
40	28	22,348	-53.1		92	5.2
30	26	24,215	-50.2		85	8.0
25	19	25,394	-49.1		88	7.6
20	13	26,870	-46.8			
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PEORIA, ILL. 993 MB

Standard pressure surface (mb)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind Direction	Wind Speed
SURFACE	31	200	17.0	88	141	1.4
1000	31	136				
950	31	579	20.3	67	217	4.9
900	31	1,044	18.3	61	256	7.0
850	31	1,533	15.9	55	267	9.5
800	31	2,046	13.2	52	278	10.3
750	31	2,585	10.2	47	285	10.7
700	31	3,158	7.1	39	285	12.8
650	31	3,762	3.7	34	289	14.2
600	31	4,410	- .3	32	290	16.5
550	31	5,097	- 4.8		289	15.7
500	31	5,844	- 9.7		287	18.7
450	31	6,650	-14.9		288	18.7
400	31	7,532	-21.0		290	21.0
350	31	8,505	-28.1		291	24.3
300	31	9,593	-36.0		296	29.5
250	31	10,836	-44.9		296	37.5
200	31	12,297	-54.1		294	41.4
175	31	13,146	-57.9		296	38.3
150	31	14,109	-61.8		291	32.4
125	31	15,227	-64.8		287	24.9
100	30	16,590	-64.4		285	16.1
80	30	17,961	-62.4		302	4.7
70	30	18,798	-60.0		343	2.3
60	30	19,759	-57.6		58	3.3
50	30	20,917	-55.3		83	9.5
40	29	22,350	-52.9		87	14.0
30	29	24,217	-50.6		88	14.4
25	29	25,411	-48.8		90	16.7
20	29	26,886	-46.5		88	17.9
15	27	28,814	-42.9		83	21.8
10	23	31,571	-38.8		88	28.0
7	19	34,052	-34.8		84	29.3
5	11	36,382	-32.7			

PITTSBURGH, PA. 977 MB

Standard pressure surface (mb)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind Direction	Wind Speed
SURFACE	31	353	15.2	89	214	.8
1000	31	153				
950	31	591	17.8	72	223	4.1
900	31	1,053	15.9	71	270	7.4
850	31	1,536	13.1	69	282	9.1
800	31	2,044	10.4	63	283	11.7
750	31	2,579	8.4	48	284	14.2
700	31	3,148	5.8	40	279	15.3
650	31	3,750	2.6		282	15.9
600	31	4,394	- 1.5		280	17.1
550	31	5,075	- 5.5		279	18.1
500	31	5,824	-10.2		281	19.8
450	31	6,622	-15.6		277	21.4
400	31	7,507	-21.9		279	22.3
350	31	8,477	-28.9		277	23.7
300	31	9,562	-37.0		277	25.5
250	31	10,801	-45.7		282	32.6
200	31	12,261	-53.4		283	39.4
175	31	13,114	-57.0		282	39.8
150	31	14,083	-60.3		283	30.5
125	31	15,213	-62.7		281	24.7
100	31	16,586	-63.0		284	15.0
80	31	17,963	-61.2		295	5.6
70	31	18,805	-58.8		21	2.5
60	31	19,769	-56.9		79	5.8
50	30	20,929	-55.2		96	10.1
40	30	22,359	-53.2		87	14.2
30	30	24,223	-50.4		90	18.5
25	29	25,416	-48.6		88	17.9
20	29	26,891	-46.2		87	20.4
15	29	28,815	-43.5		91	24.7
10	27	31,563	-39.1		90	25.8
7	14	34,007	-37.2		92	25.3
5	9	36,341	-33.9			

PONAPE, CAROLINE IS. 1005 MB

Standard pressure surface (mb)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind Direction	Wind Speed
SURFACE	31	39	24.1	96	141	1.7
1000	31	87	24.8	69	132	1.7
950	31	533	23.6	79	97	2.9
900	31	1,011	20.9	78	97	5.1
850	31	1,505	18.1	77	94	6.6
800	31	2,023	15.2	77	94	7.2
750	31	2,565	12.1	75	91	8.5
700	31	3,145	9.0	72	93	10.7
650	31	3,752	5.7	70	89	13.0
600	31	4,408	1.9	68	94	15.7
550	31	5,102	- 1.9	68	96	16.3
500	31	5,859	- 6.1	62	99	16.5
450	31	6,675	-10.8	55	96	16.5
400	31	7,575	-16.4	48	97	13.4
350	31	8,566	-23.2	44	98	13.0
300	31	9,676	-31.6	39	86	11.9
250	31	10,940	-41.9		62	10.9
200	31	12,412	-54.4		49	11.5
175	31	13,254	-61.5		44	11.9
150	31	14,193	-68.9		34	10.7
125	31	15,264	-76.1		13	4.9
100	29	16,538	-77.6		100	7.4
80	27	17,832	-72.7		103	10.7
70	26	18,620	-69.9		93	11.7
60	26	19,543	-66.9		89	14.6
50	26	20,655	-63.4		91	19.8
40	26	22,035	-60.8		89	34.4
30	25	23,835	-58.2		88	56.7
25	23	24,991	-55.2		88	64.9
20	20	26,433	-51.6		88	68.0
15	16	28,308	-48.1		90	75.4
10	10	31,010	-44.5			
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PORTLAND, ME. 1015 MB

Standard pressure surface (mb)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind Direction	Wind Speed
SURFACE	30	20	15.8	92	319	1.4
1000	30	147	16.1	85	295	2.3
950	30	587	15.5	77	306	2.3
900	30	1,042	13.5	76	286	2.9
850	30	1,522	11.5	66	266	4.9
800	30	2,027	9.8	55	263	6.6
750	30	2,556	7.2	51	274	8.7
700	30	3,127	4.5	47	274	11.1
650	30	3,721	1.4	44	271	12.6
600	30	4,368	- 2.0		261	15.0
550	30	5,044	- 5.9		261	16.7
500	30	5,796	-10.7		262	17.9
450	30	6,590	-16.3		265	19.2
400	30	7,476	-22.2		256	21.4
350	30	8,444	-29.5		254	25.5
300	30	9,528	-37.4		250	27.4
250	30	10,764	-46.9		250	33.0
200	29	12,210	-55.0		256	36.3
175	29	13,060	-55.9		262	31.7
150	29	14,037	-57.8		260	29.0
125	29	15,182	-59.6		261	25.3
100	29	16,575	-59.6		259	17.9
80	29	17,977	-58.0		258	8.5
70	29	18,832	-56.7		252	4.3
60	28	19,801	-55.0		133	1.4
50	28	20,970	-53.6		94	4.1
40	28	22,412	-52.0		95	6.2
30	27	24,283	-49.6		91	9.5
25	18	25,485	-48.0		93	13.8
20	16	26,967	-45.5		92	13.8
15	8	28,887	-42.1			
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RAPID CITY, S. DAK. 905 MB

Standard pressure surface (mb)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind Direction	Wind Speed
SURFACE	31	966	14.9	71	318	2.3
1000	31	107				
950	31	546				
900	31	1,012	16.2	65	314	2.3
850	31	1,502	18.7	42	271	5.6
800	31	2,020	16.3	38	287	6.4
750	31	2,558	12.7	36	283	10.3
700	31	3,140	8.2	41	275	12.8
650	31	3,739	3.8	40	274	15.5
600	31	4,393	- 1.1	39	275	19.4
550	31	5,069	- 6.4	41	272	22.9
500	31	5,818	-11.5	36	271	24.5
450	31	6,613	-16.6	32	269	25.5
400	31	7,492	-23.2		269	30.1
350	31	8,456	-30.2		271	32.1
300	31	9,534	-38.4		268	37.1
250	31	10,764	-47.0		268	42.7
200	31	12,216	-54.0		266	47.6
175	31	13,069	-56.1		265	46.4
150	31	14,040	-59.7		266	41.8
125	31	15,172	-62.0		267	31.3
100	31	16,550	-62.3		274	18.5
80	31	17,935	-59.8		264	6.0
70	31	18,778	-57.6		248	2.9
60	31	19,754	-55.7		96	1.0
50	31	20,920	-54.1		84	4.5
40	31	22,358	-52.3		81	7.0
30	31	24,229	-50.1		85	9.9
25	30	25,427	-48.4		86	12.0
20	29	26,906	-45.9		86	13.0
15	20	28,832	-42.4		88	10.3
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ST. CLOUD, MINN. 977 MB

Standard pressure surface (mb)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind Direction	Wind Speed
SURFACE	31	316	15.0	91		.0
1000	31	122				
950	31	561	18.0	72	224	3.5
900	31	1,022	16.6	63	268	7.4
850	31	1,508	14.5	59	278	9.1
800	31	2,019	12.0	54	286	11.5
750	31	2,554	9.0	48	277	13.0
700	31	3,125	5.6	46	279	15.0
650	31	3,722	1.8	42	283	17.5
600	31	4,369	- 1.9	42	279	20.8
550	31	5,043	- 6.3	41	276	22.3
500	31	5,794	-11.1	38	278	25.3
450	31	6,591	-16.4		281	26.8
400	31	7,472	-22.6		277	27.0
350	31	8,439	-29.8		277	29.7
300	31	9,518	-38.1		279	34.4
250	30	10,747	-47.3		275	42.6
200	30	12,194	-55.1		275	50.1
175	30	13,041	-57.3		278	51.9
150	30	14,012	-59.0		282	40.6
125	30	15,151	-60.3		283	29.9
100	30	16,540	-60.5		284	21.2
80	30	17,937	-58.6		279	12.4
70	30	18,782	-56.9		280	7.6
60	30	19,760	-55.8		302	2.9
50	30	20,926	-54.0		46	2.1
40	30	22,366	-51.8		84	4.9
30	30	24,241	-49.6		79	7.0
25	30	25,440	-48.1		78	8.2
20	29	26,916	-45.7		85	9.3
15	28	28,843	-43.0		86	13.2
10	25	31,612	-38.2		91	17.1
7	23	34,080	-34.8		90	18.3
5	11	36,414	-32.4			

ST. PAUL IS., ALASKA 1008 MB

Standard pressure surface (mb)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind Direction	Wind Speed
SURFACE	31	10	8.1	97	200	5.6
1000	31	77	7.5	94	213	8.7
950	31	501	6.2	90	214	12.0
900	31	941	5.0	82	218	14.2
850	31	1,408	4.3	72	221	14.4
800	31	1,900	2.5	70	223	13.8
750	31	2,420	.4	68	220	15.2
700	31	2,972	- 2.3	68	233	16.3
650	31	3,555	- 5.4	64	232	19.8
600	31	4,182	- 8.7	60	229	21.0
550	31	4,849	-12.6	54	232	21.8
500	31	5,574	-16.9	49	235	23.3
450	31	6,352	-21.8	44	239	26.6
400	31	7,216	-27.6	41	241	29.9
350	31	8,162	-34.4	43	243	34.0
300	31	9,222	-42.3		246	31.3
250	31	10,435	-49.1		253	26.0
200	31	11,894	-49.7		245	26.2
175	31	12,767	-50.1		247	22.9
150	31	13,772	-50.9		245	19.2
125	31	14,954	-52.2		257	18.1
100	31	16,397	-52.2		252	13.0
80	31	17,842	-51.9		251	12.8
70	31	18,709	-51.7		242	6.0
60	30	19,705	-51.7		243	5.2
50	30	20,888	-51.5		224	3.1
40	29	22,336	-51.3			.0
30	27	24,210	-49.9		120	1.6
25	26	25,405	-48.5		90	2.1
20	24	26,886	-47.0		117	1.0
15	23	28,806	-44.8		119	2.7
10	18	31,545	-41.3			
7	6	33,944	-40.0			
5						

SALEM, OREG. 1011 MB

Standard pressure surface (mb)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind Direction	Wind Speed
SURFACE	31	61	12.2	89	200	1.7
1000	31	151	14.0	78	235	.8
950	31	584	13.3	73	284	1.0
900	31	1,038	11.7	70	258	1.9
850	31	1,515	9.9	65	248	3.9
800	31	2,018	7.8	50	254	7.4
750	31	2,547	5.6	44	258	10.3
700	31	3,110	3.2	37	255	14.0
650	31	3,703	- .4	38	248	16.9
600	31	4,342	- 4.1	37	250	18.5
550	31	5,018	- 8.1	35	250	20.6
500	31	5,759	-12.7	36	254	22.0
450	31	6,550	-18.2		257	25.1
400	31	7,425	-24.2		259	28.0
350	31	8,385	-31.4		258	29.9
300	30	9,462	-39.5		259	31.1
250	30	10,685	-48.5		255	34.6
200	30	12,128	-55.0		255	36.3
175	30	12,981	-55.6		252	36.3
150	30	13,959	-57.1		252	32.6
125	30	15,110	-58.4		253	25.1
100	30	16,511	-58.8		250	15.2
80	30	17,915	-57.8		253	8.0
70	30	18,763	-56.9		274	2.5
60	30	19,737	-55.8		101	1.4
50	30	20,900	-54.4		89	3.1
40	30	22,335	-52.7		72	4.1
30	30	24,202	-50.5		82	7.6
25	30	25,395	-49.0		79	11.3
20	27	26,866	-47.5		87	13.6
15	25	28,779	-44.4		82	12.6
10	10	31,527	-40.9			
7						

SALT LAKE CITY, UTAH 873 MB

Standard pressure surface (mb)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind Direction	Wind Speed
SURFACE	31	1,288	16.6	47	157	6.4
1000	31	109				
950	31	549				
900	31	1,019				
850	31	1,515	21.0	30	163	9.9
800	31	2,038	19.0	24	184	9.5
750	31	2,585	15.1	25	223	8.7
700	31	3,168	10.7	26	245	12.2
650	31	3,777	5.6	31	246	15.5
600	31	4,429	.5	36	250	19.0
550	31	5,113	- 5.2	42	242	22.5
500	31	5,862	-11.2	47	243	25.1
450	31	6,661	-16.6	35	244	27.0
400	31	7,540	-22.6		250	31.5
350	31	8,507	-29.5		253	33.4
300	31	9,588	-37.7		250	38.7
250	31	10,822	-46.2		252	42.9
200	31	12,277	-54.4		250	46.8
175	31	13,125	-57.7		251	45.1
150	31	14,089	-61.4		251	40.8
125	31	15,209	-65.0		253	29.3
100	31	16,565	-65.4		255	16.1
80	30	17,932	-62.0		264	5.2
70	29	18,766	-59.2		276	1.4
60	29	19,732	-57.4		72	4.7
50	29	20,889	-55.5		88	8.0
40	29	22,318	-53.6		85	10.9
30	29	24,175	-51.7		84	14.0
25	27	25,361	-49.9		86	15.0
20	26	26,828	-47.6		83	15.3
15	22	28,731	-45.0		83	18.7
10	5	31,473	-40.5			
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SAN ANTONIO, TEXAS 987 MB

Standard pressure surface (mb)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind Direction	Wind Speed
SURFACE	31	243	24.7	77	184	2.1
1000	31	125				
950	31	580	23.7	73	195	8.0
900	31	1,050	22.5	58	185	11.9
850	31	1,546	20.2	52	159	8.4
800	31	2,067	16.7	53	119	6.8
750	31	2,610	13.2	51	100	6.4
700	31	3,191	9.7	44	87	6.4
650	31	3,799	6.1	40	76	7.2
600	31	4,455	2.0	39	64	7.6
550	31	5,147	- 2.2	35	74	8.2
500	31	5,904	- 6.9		77	7.6
450	31	6,715	-12.0		90	5.8
400	31	7,612	-18.1		83	2.7
350	31	8,595	-25.2		107	1.6
300	31	9,697	-33.3		133	1.7
250	31	10,951	-42.9		186	1.9
200	30	12,421	-54.2		192	.6
175	29	13,268	-59.9		85	.6
150	29	14,217	-65.8		71	1.4
125	29	15,309	-71.1		43	5.1
100	29	16,624	-71.6		71	10.1
80	29	17,951	-68.4		78	17.9
70	29	18,767	-65.0		82	22.0
60	29	19,707	-62.1		87	25.1
50	29	20,844	-59.0		90	29.7
40	28	22,256	-56.0		89	33.0
30	28	24,104	-52.1		86	36.7
25	28	25,292	-50.0		87	37.7
20	26	26,758	-48.4		86	39.4
15	12	28,658	-45.5			
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SAN DIEGO, CALIF. 998 MB

Standard pressure surface (mb)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind Direction	Wind Speed
SURFACE	31	124	17.5	91	325	1.4
1000	31	111	16.8		323	1.4
950	31	556	21.0	56	333	2.5
900	31	1,024	25.3	22	319	4.9
850	31	1,524	23.6	21	290	6.0
800	31	2,050	20.4	25	256	6.2
750	31	2,598	16.3	30	228	7.0
700	31	3,186	11.7	36	204	8.4
650	31	3,794	6.9	37	199	8.9
600	31	4,454	2.2	38	197	8.7
550	31	5,143	- 2.7	35	206	8.4
500	31	5,901	- 7.9	33	209	8.0
450	31	6,704	-13.1		221	11.3
400	31	7,602	-19.2		231	13.4
350	31	8,582	-26.2		230	16.9
300	31	9,680	-34.1		230	19.2
250	31	10,933	-43.2		232	22.3
200	31	12,403	-53.6		233	24.5
175	31	13,251	-59.3		235	23.5
150	31	14,203	-65.3		232	19.2
125	31	15,300	-69.6		233	14.0
100	31	16,626	-70.1		211	2.7
80	31	17,961	-67.0		101	6.6
70	31	18,784	-63.6		90	11.5
60	31	19,726	-60.8		89	16.9
50	31	20,867	-58.1		96	20.6
40	31	22,281	-55.5		92	22.9
30	31	24,126	-52.7		89	29.1
25	31	25,308	-51.2		92	30.1
20	31	26,764	-49.2		91	29.1
15	27	28,664	-46.6		89	32.6
10	20	31,370	-42.5		88	38.5
7						

SAN JUAN, P. R. 1015 MB

Standard pressure surface (mb)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind Direction	Wind Speed
SURFACE	31	6	25.1	85	100	2.3
1000	31	139	24.7	83	95	11.7
950	31	587	21.9	80	93	17.3
900	31	1,057	19.0	77	95	17.1
850	31	1,547	16.1	75	100	16.5
800	31	2,061	13.9	60	103	16.7
750	31	2,598	11.2	49	104	16.7
700	31	3,176	7.8	47	104	14.4
650	31	3,777	4.4	47	105	12.0
600	31	4,432	1.3	35	104	9.9
550	31	5,119	- 2.4	32	97	9.5
500	31	5,879	- 6.9		95	8.9
450	31	6,681	-12.2		93	6.8
400	31	7,584	-18.4		101	4.9
350	30	8,565	-25.6		98	3.7
300	30	9,664	-34.1		112	2.3
250	30	10,913	-44.2		185	2.7
200	30	12,369	-56.2		216	3.9
175	28	13,210	-61.9		180	.6
150	28	14,150	-67.4		103	1.4
125	28	15,237	-71.9		92	4.9
100	28	16,543	-73.7		73	13.2
80	28	17,861	-69.4		79	25.1
70	28	18,663	-67.1		84	28.8
60	26	19,594	-64.8		88	32.6
50	26	20,717	-61.2		90	36.9
40	26	22,116	-57.5		91	42.7
30	24	23,955	-53.1		94	45.3
25	24	25,136	-51.1		91	49.4
20	24	26,593	-49.3		90	51.5
15	22	28,493	-45.4		88	56.2
10	18	31,226	-40.9		92	65.3
7	7	33,627	-38.4			

See reference note at end of table

RAWINSONDE DATA

Average monthly values

SANTA MONICA, CALIF.
1009 MB

Standard pressure surface (mb)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind Direction	Wind Speed
SURFACE	31	38	17.4	87		.0
1000	31	116	17.3	84	76	.8
950	31	561	21.8	50	57	2.3
900	31	1,030	24.6	23	340	2.5
850	31	1,528	22.4	20	273	4.5
800	31	2,052	19.5	20	250	7.8
750	31	2,597	15.7	23	245	9.1
700	31	3,184	11.5	27	227	10.7
650	31	3,791	6.9	31	222	12.0
600	31	4,451	2.3	28	218	12.2
550	31	5,138	- 2.6	29	216	11.1
500	31	5,896	- 8.1		218	13.2
450	31	6,698	-13.9		222	14.4
400	31	7,590	-20.2		230	16.3
350	31	8,566	-27.1		231	20.6
300	31	9,659	-35.0		236	24.9
250	31	10,907	-43.9		235	29.9
200	31	12,372	-54.0		238	31.5
175	31	13,219	-59.5		238	29.9
150	31	14,170	-65.0		238	24.5
125	30	15,266	-69.2		241	17.7
100	30	16,597	-69.2		243	4.5
80	30	17,937	-66.3		100	5.1
70	30	18,755	-63.3		93	9.5
60	30	19,706	-60.3		91	15.2
50	30	20,850	-57.7		96	18.5
40	30	22,265	-55.5		89	20.2
30	29	24,112	-52.7		87	26.8
25	29	25,294	-51.0		92	29.0
20	29	26,753	-48.8		92	27.6
15	27	28,653	-46.1		87	32.3
10	5	31,350	-44.2			
7						
5						

SAULT STE. MARIE, MICH.
989 MB

Standard pressure surface (mb)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind Direction	Wind Speed
SURFACE	31	221	12.5	94	46	[illegible]
1000	31	127				
950	31	558	14.9	70	260	3.9
900	31	1,018	13.5	62	270	3.7
850	31	1,498	11.1	[illegible]	[illegible]	[illegible]
800	31	2,002	8.4	[illegible]	[illegible]	[illegible]
750	31	2,533	5.8	45	[illegible]	14.8
700	31	3,096	3.2	42	[illegible]	17.1
650	31	[illegible]	.0	42	[illegible]	18.5
600	31	4,331	[illegible]	41	278	20.2
550	31	5,008	- 7.9		280	21.8
500	31	5,748	-12.8		284	24.7
450	31	6,549	[illegible]		284	26.2
400	31	7,416	[illegible]		287	28.6
350	31	8,375	-31.5		284	30.4
300	31	9,448	[illegible]		[illegible]	[illegible]
250	31	10,669	-48.7		[illegible]	[illegible]
200	31	12,116	-54.1		[illegible]	45.7
175	31	12,971	-54.8		[illegible]	44.3
150	31	13,953	-56.7		[illegible]	[illegible]
125	31	15,103	-58.4		[illegible]	[illegible]
100	31	16,506	-58.4		[illegible]	[illegible]
80	31	17,915	[illegible]		[illegible]	[illegible]
70	30	18,768	[illegible]		[illegible]	7.4
60	30	19,748	-54.7		[illegible]	[illegible]
50	30	20,919	-53.1		349	.6
40	30	22,364	[illegible]		70	[illegible]
30	30	24,242	[illegible]		[illegible]	[illegible]
25	30	25,441	[illegible]		[illegible]	10.5
20	29	26,922	-45.7		[illegible]	[illegible]
15	28	28,848	-42.6		[illegible]	14.8
10	28	31,612	-37.6		[illegible]	17.1
7	26	34,094	-33.9		91	[illegible]
5	9	36,464	-31.2			

SHEMYA, ALASKA
[illegible] MB

Standard pressure surface (mb)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind Direction	Wind Speed
SURFACE	31	38	8.0	78	[illegible]	[illegible]
1000	31	65	[illegible]	[illegible]	[illegible]	[illegible]
950	31	487	6.9	[illegible]	[illegible]	[illegible]
900	31	932	[illegible]	[illegible]	[illegible]	[illegible]
850	31	[illegible]	3.7	[illegible]	[illegible]	7.4
800	31	1,890	1.7	[illegible]	241	[illegible]
750	31	[illegible]	- .5	[illegible]	[illegible]	[illegible]
700	31	[illegible]	- 3.0	[illegible]	[illegible]	[illegible]
650	31	[illegible]	[illegible]	[illegible]	[illegible]	12.8
600	31	4,167	- 9.0	[illegible]	237	13.4
550	31	4,830	-12.8	[illegible]	243	15.2
500	31	[illegible]	[illegible]	46	244	16.1
450	31	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
400	31	7,196	-28.4	38	[illegible]	[illegible]
350	31	[illegible]	[illegible]		[illegible]	[illegible]
300	31	[illegible]	[illegible]		[illegible]	[illegible]
250	31	[illegible]	[illegible]		[illegible]	[illegible]
200	31	[illegible]	[illegible]		[illegible]	[illegible]
175	31	[illegible]	[illegible]		[illegible]	[illegible]
150	31	[illegible]	[illegible]		[illegible]	[illegible]
125	31	14,962	[illegible]		[illegible]	[illegible]
100	31	[illegible]	[illegible]		[illegible]	15.7
80	31	17,844	-52.4		[illegible]	[illegible]
70	[illegible]	18,703	-52.1		241	[illegible]
60	[illegible]	[illegible]	-52.1		[illegible]	[illegible]
50	28	[illegible]	[illegible]		[illegible]	[illegible]
40	[illegible]	[illegible]	[illegible]		[illegible]	[illegible]
30	[illegible]	[illegible]	[illegible]		[illegible]	[illegible]
25	28	[illegible]	[illegible]		[illegible]	4.5
20	27	[illegible]	[illegible]		[illegible]	[illegible]
15	22	[illegible]	[illegible]		65	[illegible]
10	[illegible]	[illegible]	[illegible]			
7	[illegible]	[illegible]	[illegible]			
5	[illegible]	[illegible]	[illegible]			

SHREVEPORT, LA.
[illegible] MB

Standard pressure surface (mb)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind Direction	Wind Speed
SURFACE	31	79	[illegible]	[illegible]	[illegible]	[illegible]
1000	31	136	[illegible]	[illegible]	[illegible]	[illegible]
950	31	590	[illegible]	[illegible]	[illegible]	[illegible]
900	31	1,061	[illegible]	[illegible]	[illegible]	[illegible]
850	31	1,556	[illegible]	[illegible]	[illegible]	[illegible]
800	31	2,075	[illegible]	[illegible]	[illegible]	[illegible]
750	31	2,615	[illegible]	[illegible]	[illegible]	[illegible]
700	31	3,196	8.4	[illegible]	[illegible]	[illegible]
650	31	3,799	4.6	43	[illegible]	[illegible]
600	31	4,452	.7	[illegible]	[illegible]	[illegible]
550	31	5,139	[illegible]	41	[illegible]	[illegible]
500	31	5,893	[illegible]	34	[illegible]	[illegible]
450	31	6,701	[illegible]		[illegible]	[illegible]
400	31	7,595	-18.8		[illegible]	[illegible]
350	31	8,576	-25.8		[illegible]	[illegible]
300	31	9,674	[illegible]		[illegible]	[illegible]
250	31	10,925	[illegible]		[illegible]	[illegible]
200	[illegible]	12,389	[illegible]		[illegible]	[illegible]
175	30	13,233	[illegible]		[illegible]	[illegible]
150	30	14,181	[illegible]		[illegible]	[illegible]
125	[illegible]	15,274	[illegible]		[illegible]	[illegible]
100	[illegible]	16,595	-71.2		[illegible]	[illegible]
80	30	17,928	-66.6		[illegible]	[illegible]
70	29	18,750	-63.8		[illegible]	[illegible]
60	[illegible]	19,694	-61.0		[illegible]	[illegible]
50	29	20,834	-58.0		[illegible]	[illegible]
40	28	22,251	-55.3		[illegible]	[illegible]
30	[illegible]	24,102	-51.9		[illegible]	[illegible]
25	[illegible]	25,291	-49.9		[illegible]	[illegible]
20	24	26,761	-47.4		[illegible]	[illegible]
15	24	28,675	-44.4		[illegible]	[illegible]
10	21	31,412	-39.8		[illegible]	[illegible]
7						
5						

SPOKANE, WASH.
[illegible] MB

Standard pressure surface (mb)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind Direction	Wind Speed
SURFACE	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
1000	[illegible]	122				
950	[illegible]	562				
900	[illegible]	1,019	[illegible]	[illegible]	[illegible]	[illegible]
850	[illegible]	1,502	[illegible]	[illegible]	221	[illegible]
800	[illegible]	2,009	[illegible]	[illegible]	227	[illegible]
750	[illegible]	2,538	[illegible]	[illegible]	238	[illegible]
700	[illegible]	3,103	[illegible]	[illegible]	[illegible]	[illegible]
650	[illegible]	3,693	[illegible]	[illegible]	[illegible]	[illegible]
600	[illegible]	4,332	[illegible]	[illegible]	[illegible]	[illegible]
550	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
500	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
450	[illegible]	6,528	[illegible]	[illegible]	[illegible]	[illegible]
400	[illegible]	7,400	[illegible]	[illegible]	[illegible]	[illegible]
350	[illegible]	8,355	[illegible]	[illegible]	[illegible]	[illegible]
300	[illegible]	[illegible]	[illegible]		[illegible]	[illegible]
250	[illegible]	10,639	[illegible]		255	[illegible]
200	[illegible]	[illegible]	[illegible]		253	[illegible]
175	[illegible]	[illegible]	[illegible]		256	[illegible]
150	[illegible]	13,945	[illegible]		[illegible]	[illegible]
125	[illegible]	15,106	[illegible]		[illegible]	[illegible]
100	[illegible]	16,521	[illegible]		[illegible]	[illegible]
80	[illegible]	17,938	[illegible]		258	[illegible]
70	[illegible]	18,794	[illegible]		[illegible]	[illegible]
60	[illegible]	19,774	[illegible]		[illegible]	[illegible]
50	[illegible]	[illegible]	[illegible]		[illegible]	[illegible]
40	[illegible]	22,387	[illegible]		[illegible]	[illegible]
30	[illegible]	[illegible]	[illegible]		[illegible]	[illegible]
25	[illegible]	[illegible]	[illegible]		[illegible]	[illegible]
20	[illegible]	26,935	[illegible]		[illegible]	[illegible]
15	[illegible]	28,863	[illegible]		[illegible]	[illegible]
10	[illegible]	31,629	[illegible]			
7						
5						

SWAN ISLAND, W. I.
1012 MB

Standard pressure surface (mb)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind Direction	Wind Speed
SURFACE	31	10	26.8	83	76	6.0
1000	31	118	26.3	82	82	8.2
950	31	564	23.1	81	99	12.2
900	31	1,041	20.4	74	100	13.6
850	31	1,534	17.9	64	100	14.2
800	31	2,051	15.1	57	99	13.2
750	31	2,589	12.0	56	99	14.0
700	31	3,171	8.9	54	99	12.8
650	31	3,775	5.6	47	98	11.5
600	31	4,432	1.7	47	99	10.5
550	31	5,117	- 2.5	46	101	10.1
500	31	5,879	- 6.9	41	102	10.3
450	31	6,685	-11.7	34	98	9.1
400	31	7,586	-17.7	31	86	9.1
350	31	8,572	-24.5		78	9.1
300	31	9,676	-32.9		66	8.5
250	30	10,933	-43.0		63	8.9
200	30	12,397	-55.2		54	7.2
175	30	13,235	-61.9		66	8.6
150	30	14,173	-68.6		69	11.1
125	30	15,249	-73.6		78	15.7
100	30	16,546	-74.9		84	20.0
80	30	17,853	-71.1		85	26.0
70	30	18,649	-67.9		86	28.8
60	29	19,585	-65.6		90	31.5
50	29	20,702	-62.6		89	36.9
40	29	22,091	-58.7		91	44.5
30	27	23,915	-55.0		94	50.3
25	27	25,090	-52.9		94	54.4
20	21	26,534	-50.0		95	60.4
15	5	28,418	-45.2			
10						
7						
5						

TAMPA, FLA.
1015 MB

Standard pressure surface (mb)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind Direction	Wind Speed
SURFACE	31	8	24.5	91	97	3.3
1000	31	140	25.0	85	121	3.5
950	31	587	23.3	79	166	2.7
900	31	1,062	20.4	76	209	1.7
850	31	1,555	17.6	72	203	2.5
800	31	2,072	14.6	71	217	2.5
750	31	2,611	11.3	69	219	2.9
700	31	3,190	8.5	60	236	2.7
650	31	3,794	5.2	57	252	2.1
600	31	4,449	1.5	54	256	2.7
550	31	5,135	- 2.3	50	264	3.7
500	31	5,897	- 6.3	46	260	2.5
450	31	6,709	-11.3	42	297	2.1
400	31	7,609	-16.8	48	310	2.3
350	31	8,597	-23.7	32	308	3.1
300	31	9,704	-32.0		296	3.1
250	31	10,964	-42.0		296	5.2
200	31	12,435	-54.1		323	8.0
175	31	13,277	-60.7		349	7.4
150	31	14,221	-66.9		[illegible]	8.6
125	31	15,307	-71.3		[illegible]	8.9
100	31	16,623	-70.9		69	12.8
80	31	17,956	-67.4		77	17.7
70	31	18,770	-64.6		78	22.7
60	31	19,716	-61.4		87	28.2
50	31	20,854	-58.6		92	32.3
40	30	22,268	-55.1		93	35.4
30	29	24,120	-51.5		93	35.6
25	28	25,307	-49.3		89	33.4
20	23	26,772	-47.7		87	36.1
15	12	28,669	-45.8			
10						
7						
5						

TATOOSH IS., WASH
1014 MB

Standard pressure surface (mb)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind Direction	Wind Speed
SURFACE	31	31	13.0	95	177	4.5
1000	31	145	13.0	91	187	5.8
950	31	572	11.9	81	214	6.4
900	31	1,028	10.2	70	225	7.2
850	31	1,502	8.3	68	228	7.4
800	31	2,001	6.0	65	229	6.2
750	31	2,524	3.4	61	249	[illegible]
700	31	3,084	.3	54	258	[illegible]
650	31	3,667	- 3.1	49	265	12.6
600	31	4,305	- 6.5	43	265	14.2
550	31	4,970	-10.3	42	268	15.9
500	31	5,708	-14.7	43	271	17.7
450	31	6,487	-20.1	42	269	20.6
400	31	7,361	-26.3	42	270	23.5
350	31	8,312	-33.5	39	268	24.1
300	31	9,376	-41.2		267	26.8
250	31	10,593	-48.5		267	31.1
200	30	12,041	-52.7		266	30.1
175	30	12,902	-53.0		258	30.3
150	30	13,893	-54.1		263	26.6
125	30	15,059	-55.2		262	19.0
100	30	16,480	-55.6		[illegible]	13.8
80	30	17,902	-55.1		263	7.0
70	30	18,753	-54.7		256	2.7
60	30	19,742	-54.2		268	2.9
50	30	20,913	-53.5		55	1.6
40	29	22,353	-52.0		84	1.9
30	28	24,228	-49.8		61	[illegible]
25	28	25,424	-48.4		77	[illegible]
20	27	26,901	-46.5		90	[illegible]
15	27	28,821	-43.7		[illegible]	12.0
10	23	31,578	-39.1		82	16.3
7	17	34,045	-34.4		94	18.5
5	7	36,469	-29.9			

TOPEKA, KANS.
[illegible] MB

Standard pressure surface (mb)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind Direction	Wind Speed
SURFACE	31	269	[illegible]	84	[illegible]	[illegible]
1000	31	120				
950	31	567	[illegible]	[illegible]	[illegible]	7.1
900	31	1,036	[illegible]	47	[illegible]	[illegible]
850	31	1,528	[illegible]	46	[illegible]	[illegible]
800	31	2,046	[illegible]	[illegible]	[illegible]	[illegible]
750	31	2,591	12.8	[illegible]	[illegible]	[illegible]
700	31	3,167	9.0	[illegible]	[illegible]	[illegible]
650	31	3,775	4.8	[illegible]	[illegible]	[illegible]
600	31	4,424	[illegible]	37	[illegible]	14.2
550	31	5,110	- 4.4	36	[illegible]	[illegible]
500	31	5,860	[illegible]		[illegible]	14.2
450	31	6,663	-14.5		[illegible]	[illegible]
400	31	7,551	[illegible]		[illegible]	[illegible]
350	31	8,527	-27.1		[illegible]	24.1
300	31	9,622	[illegible]		[illegible]	[illegible]
250	31	10,869	[illegible]		[illegible]	[illegible]
200	31	12,333	-54.0		[illegible]	[illegible]
175	30	13,183	-58.7		[illegible]	[illegible]
150	30	14,141	-63.5		[illegible]	[illegible]
125	30	15,251	-67.2		[illegible]	[illegible]
100	30	16,594	-67.1		[illegible]	[illegible]
80	30	17,951	-63.8		[illegible]	[illegible]
70	30	18,774	-61.1		[illegible]	[illegible]
60	30	19,736	-59.1		[illegible]	[illegible]
50	30	20,887	-56.2		[illegible]	[illegible]
40	29	22,313	-53.9		[illegible]	[illegible]
30	27	24,168	[illegible]		[illegible]	[illegible]
25	24	25,360	[illegible]		[illegible]	[illegible]
20	20	[illegible]	[illegible]		[illegible]	[illegible]
15	6	[illegible]	[illegible]			
10						
7						
5						

TRUK, CAROLINE IS.
[illegible] MB

Standard pressure surface (mb)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind Direction	Wind Speed
SURFACE	[illegible]	[illegible]	[illegible]	[illegible]	60	1.4
1000	31	[illegible]	[illegible]	85	71	[illegible]
950	[illegible]	540	23.8	[illegible]	[illegible]	[illegible]
900	[illegible]	1,019	[illegible]	[illegible]	[illegible]	[illegible]
850	[illegible]	[illegible]	18.1	81	[illegible]	[illegible]
800	31	2,031	15.4	[illegible]	98	[illegible]
750	31	[illegible]	[illegible]	[illegible]	83	[illegible]
700	31	[illegible]	9.5	74	[illegible]	8.7
650	[illegible]	3,764	6.0	[illegible]	107	11.1
600	31	[illegible]	1.9	75	[illegible]	12.0
550	[illegible]	5,113	[illegible]	[illegible]	101	12.6
500	[illegible]	[illegible]	- 6.0	68	106	12.8
450	[illegible]	6,687	[illegible]	62	105	[illegible]
400	[illegible]	7,589	-16.1	57	106	10.9
350	[illegible]	[illegible]	-23.0	56	106	12.2
300	[illegible]	9,693	-31.3	45	[illegible]	14.0
250	[illegible]	[illegible]	-41.6		[illegible]	15.0
200	[illegible]	[illegible]	[illegible]		[illegible]	17.3
175	[illegible]	[illegible]	-61.4		[illegible]	[illegible]
150	[illegible]	14,210	-69.0		[illegible]	[illegible]
125	[illegible]	15,281	[illegible]		[illegible]	[illegible]
100	[illegible]	[illegible]	-77.5		[illegible]	[illegible]
80	[illegible]	17,857	[illegible]		[illegible]	[illegible]
70	[illegible]	18,646	-69.8		[illegible]	17.1
60	[illegible]	19,573	-66.1		[illegible]	[illegible]
50	[illegible]	[illegible]	-62.7		[illegible]	[illegible]
40	[illegible]	[illegible]	[illegible]		[illegible]	[illegible]
30	[illegible]	[illegible]	[illegible]		[illegible]	[illegible]
25	[illegible]	25,042	-54.5		[illegible]	[illegible]
20	[illegible]	26,448	[illegible]		[illegible]	[illegible]
15	[illegible]	28,332	-48.0			
10						
7						
5						

TUCSON, ARIZ.
924 MB

Standard pressure surface (mb)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind Direction	Wind Speed
SURFACE	31	789	24.6	48	165	4.9
1000	31	87				
950	31	541				
900	31	1,022	27.5	39	198	2.1
850	31	1,526	25.1	36	342	2.5
800	31	2,055	21.5	38	334	4.7
750	31	2,606	17.1	43	304	1.9
700	31	3,195	12.4	50	182	2.1
650	31	3,808	7.3	55	178	5.2
600	31	4,466	2.2	58	168	7.0
550	31	5,155	- 2.6	50	160	6.0
500	31	5,912	- 7.4	42	164	4.9
450	31	6,719	-12.0		185	4.3
400	31	7,619	-18.1		221	5.6
350	31	8,604	-24.8		225	7.8
300	31	9,706	-33.0		232	8.0
250	31	10,963	-42.7		237	11.9
200	31	12,432	-53.8		249	14.0
175	31	13,278	-59.5		254	14.2
150	31	14,230	-65.2		252	11.3
125	29	15,325	-70.4		254	6.6
100	29	16,643	-71.0		98	2.9
80	29	17,976	-66.9		91	8.9
70	28	18,794	-64.0		85	13.4
60	28	19,739	-61.4		89	18.5
50	28	20,876	-59.0		92	24.7
40	27	22,286	-56.0		93	25.6
30	27	24,129	-53.1		89	30.1
25	27	25,310	-51.2		91	30.5
20	27	26,767	-49.1		88	30.5
15	27	28,668	-46.4		84	33.8
10	25	31,382	-42.3		87	41.0
7	24	33,828	-37.5		92	46.0
5	13	36,139	-33.3			

WAKE IS., PACIFIC AREA
1014 MB

Standard pressure surface (mb)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind Direction	Wind Speed
SURFACE	31	5	27.2	81	68	9.5
1000	31	130	26.3	79	[illegible]	[illegible]
950	31	583	23.0	79	[illegible]	14.6
900	31	1,053	20.0	77	[illegible]	13.4
850	31	1,545	17.1	74	76	[illegible]
800	31	2,061	14.4	[illegible]	101	12.2
750	31	2,603	11.4	68	102	10.5
700	31	3,180	8.2	[illegible]	[illegible]	9.1
650	31	3,784	4.7	60	106	7.4
600	31	4,437	.7	[illegible]	[illegible]	6.4
550	31	5,128	- 3.3	[illegible]	[illegible]	6.6
500	31	5,881	- 7.6	47	[illegible]	5.8
450	30	6,690	[illegible]	[illegible]	[illegible]	[illegible]
400	30	7,585	[illegible]	43	[illegible]	2.5
350	30	8,568	[illegible]	42	[illegible]	1.9
300	30	9,669	-33.6	40	[illegible]	[illegible]
250	30	10,921	-43.7		[illegible]	[illegible]
200	30	12,383	-55.5		[illegible]	15.5
175	30	13,221	-62.0		[illegible]	14.2
150	30	14,160	-68.1		[illegible]	12.4
125	30	15,244	-71.3		[illegible]	4.7
100	29	16,563	-71.5		[illegible]	[illegible]
80	28	17,883	-69.8		[illegible]	[illegible]
70	27	18,681	-67.4		[illegible]	18.6
60	26	19,615	[illegible]		[illegible]	[illegible]
50	26	20,734	-61.8		[illegible]	[illegible]
40	26	22,126	-58.4		[illegible]	[illegible]
30	23	23,942	-55.2		[illegible]	48.2
25	22	25,110	-53.3		[illegible]	52.6
20	22	26,555	-50.7		[illegible]	55.4
15	22	28,441	-47.8		[illegible]	57.7
10	20	31,139	-44.0		[illegible]	[illegible]
7	12	33,553	-41.3		[illegible]	56.1
5	8	35,878	-37.8			

WASHINGTON, D. C.
1007 MB

Standard pressure surface (mb)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind Direction	Wind Speed
SURFACE	31	84	[illegible]	[illegible]	[illegible]	[illegible]
1000	31	148	18.4	84	[illegible]	1.4
950	31	592	[illegible]	[illegible]	276	2.9
900	31	1,054	16.7	66	[illegible]	5.6
850	31	1,540	13.8	68	297	7.8
800	31	2,050	11.8	55	277	10.1
750	31	2,589	9.0	51	267	11.1
700	31	3,157	6.2	43	270	12.2
650	31	3,760	3.1	35	282	13.4
600	31	4,405	- .6		277	13.4
550	31	5,092	[illegible]		276	15.3
500	31	5,840	- 9.4		273	16.3
450	31	6,643	[illegible]		274	18.3
400	31	7,529	[illegible]		278	20.2
350	31	8,503	[illegible]		275	21.2
300	31	9,592	[illegible]		274	24.1
250	31	10,834	[illegible]		278	29.5
200	30	12,295	[illegible]		277	[illegible]
175	30	13,146	-57.5		276	[illegible]
150	29	14,114	-61.1		276	26.8
125	29	[illegible]	[illegible]		[illegible]	[illegible]
100	29	16,604	[illegible]		282	11.1
80	29	17,977	[illegible]		317	[illegible]
70	29	18,814	-59.8		[illegible]	[illegible]
60	29	19,775	-57.7		[illegible]	[illegible]
50	28	20,928	-55.8		[illegible]	[illegible]
40	28	22,355	-53.4		87	15.3
30	26	24,218	[illegible]		[illegible]	15.5
25	[illegible]	25,411	-48.4		[illegible]	[illegible]
20	23	26,982	-46.4		[illegible]	[illegible]
15	15	28,807	-43.4		[illegible]	24.1
10						
7						
5						

WINNEMUCCA, NEV.
871 MB

Standard pressure surface (mb)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind Direction	Wind Speed
SURFACE	31	1,310	11.9	[illegible]	[illegible]	[illegible]
1000	31	125				
950	31	564				
900	31	1,027				
850	31	1,514	[illegible]	[illegible]	[illegible]	[illegible]
800	31	2,032	[illegible]	[illegible]	[illegible]	[illegible]
750	31	2,574	[illegible]	[illegible]	[illegible]	[illegible]
700	31	3,150	[illegible]	[illegible]	[illegible]	[illegible]
650	31	3,752	[illegible]	[illegible]	[illegible]	[illegible]
600	31	4,402	- .8	[illegible]	[illegible]	[illegible]
550	31	5,083	[illegible]	[illegible]	[illegible]	[illegible]
500	31	5,832	[illegible]	[illegible]	[illegible]	[illegible]
450	31	6,624	[illegible]		[illegible]	[illegible]
400	31	7,509	[illegible]		[illegible]	[illegible]
350	31	8,474	[illegible]		[illegible]	[illegible]
300	31	9,552	-38.4		[illegible]	[illegible]
250	31	10,782	[illegible]		[illegible]	[illegible]
200	31	12,236	[illegible]		[illegible]	[illegible]
175	31	13,087	[illegible]		[illegible]	[illegible]
150	31	14,055	[illegible]		[illegible]	[illegible]
125	31	15,183	[illegible]		[illegible]	[illegible]
100	31	16,552	[illegible]		[illegible]	[illegible]
80	[illegible]	17,927	[illegible]		[illegible]	[illegible]
70	[illegible]	18,763	[illegible]		[illegible]	[illegible]
60	30	19,729	[illegible]		[illegible]	[illegible]
50	30	20,887	[illegible]		[illegible]	[illegible]
40	26	22,321	[illegible]		[illegible]	[illegible]
30	24	24,176	[illegible]		[illegible]	[illegible]
25	[illegible]	25,363	[illegible]		[illegible]	[illegible]
20	[illegible]	[illegible]	[illegible]		[illegible]	[illegible]
15	20	[illegible]	[illegible]		[illegible]	[illegible]
10	5	31,489	[illegible]			
7						
5						

WINSLOW, ARIZ.
[illegible] MB

Standard pressure surface (mb)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind Direction	Wind Speed
SURFACE	31	1,492	17.7	[illegible]	[illegible]	[illegible]
1000	31	117				
950	31	570				
900	31	1,041				
850	31	1,536	18.9	[illegible]	213	[illegible]
800	31	2,060	20.7	[illegible]	266	[illegible]
750	31	2,609	16.8	[illegible]	269	[illegible]
700	31	3,197	12.3	[illegible]	261	[illegible]
650	31	3,807	7.2	44	228	[illegible]
600	31	4,466	1.9	48	[illegible]	[illegible]
550	31	5,152	- 3.7	[illegible]	[illegible]	[illegible]
500	31	5,907	- 9.0	[illegible]	[illegible]	[illegible]
450	31	6,709	-14.0	[illegible]	[illegible]	11.7
400	31	7,601	-19.7	[illegible]	[illegible]	13.4
350	31	8,579	-26.7		[illegible]	17.1
300	[illegible]	9,674	-34.6		[illegible]	21.6
250	[illegible]	10,922	-44.2		250	27.2
200	[illegible]	[illegible]	-54.9		252	27.2
175	[illegible]	13,226	-60.4		253	[illegible]
150	[illegible]	14,173	-66.2		250	[illegible]
125	[illegible]	15,265	-70.7		250	[illegible]
100	[illegible]	16,589	-70.2		231	[illegible]
80	[illegible]	17,927	-66.0		120	[illegible]
70	[illegible]	18,753	-63.4		[illegible]	[illegible]
60	[illegible]	19,698	-60.5		[illegible]	[illegible]
50	[illegible]	20,840	-58.0		[illegible]	[illegible]
40	[illegible]	[illegible]	[illegible]		[illegible]	[illegible]
30	[illegible]	[illegible]	-52.7		[illegible]	[illegible]
25	[illegible]	[illegible]	-50.9		[illegible]	[illegible]
20	[illegible]	26,741	-48.8		[illegible]	[illegible]
15	[illegible]	[illegible]	-46.1		[illegible]	[illegible]
10	[illegible]	[illegible]	[illegible]			
7						
5						

See reference note at end of table

RAWINSONDE DATA

Average monthly values

Standard pressure surface (mb)	YAKUTAT, ALASKA 1012 MB						YUCCA FLAT, NEV. 882 MB						YUMA, ARIZ. 993 MB					
					Wind						Wind						Wind	
	Number of observations	Dynamic height	Temperature	Relative humidity	Direction	Speed	Number of observations	Dynamic height	Temperature	Relative humidity	Direction	Speed	Number of observations	Dynamic height	Temperature	Relative humidity	Direction	Speed
SURFACE	31	12	10.4	97	74	.6	31	1,196	14.5	25	254	.8	31	131	28.6	38		.0
1000	31	110	11.0	[illegible]	100	.6	31	109					31	69				
950	31	537	9.9	[illegible]	158	2.1	31	549					31	528	31.4	27	233	4.3
900	31	[illegible]	7.6	80	207	1.2	31	1,020					31	1,012	29.0	24	240	5.8
850	31	1,456	5.3	75	244	2.7	31	1,515	23.2	20	224	3.5	31	1,517	25.7	25	231	6.6
800	31	1,950	2.9	71	250	2.5	31	2,040	20.3	19	209	10.1	31	2,046	21.5	29	213	6.0
750	31	2,467	.0	71	281	2.1	31	2,586	16.1	21	206	13.4	31	2,595	16.8	34	196	7.8
700	31	3,021	- 2.5	64	279	1.7	31	3,173	11.6	24	209	12.4	31	3,183	11.9	41	187	8.7
650	31	3,597	- 5.4	58	299	1.4	31	3,779	6.5	29	201	13.8	31	3,794	6.7	46	192	10.3
600	31	4,2[illegible]0	- 9.5	51	291	2.7	31	4,436	1.4	33	204	15.3	31	4,450	2.0	50	196	10.1
550	31	4,891	-13.7	47	[illegible]78	4.5	31	5,118	- 3.8		213	16.7	31	5,140	- 3.1	52	193	9.7
500	31	5,617	-18.3	44	129	2.3	31	5,876	- 9.3		224	19.2	31	5,894	- 8.0	47	201	8.0
450	31	6,[illegible]88	-23.7	42	24[illegible]	4.1	31	6,674	-14.9		232	20.8	31	6,70[illegible]	-13.3	37	215	9.3
400	[illegible]1	7,248	-30.0	42	256	6.2	31	7,564	-21.0		236	22.3	31	7,592	-19.2	32	222	11.3
350	31	8,185	-36.9		258	8.7	31	8,535	-28.3		243	23.7	31	8,572	-26.3	27	231	15.5
300	31	9,235	-44.5		276	10.7	31	9,62[illegible]	-36.4		242	28.4	31	9,668	-34.4	29	231	18.1
250	31	10,438	-50.1		279	14.8	30	10,864	-45.2		245	35.9	31	10,917	-43.8		232	19.6
200	31	11,897	-49.1		282	15.9	30	12,324	-54.3		243	42.0	31	12,381	-54.8		234	21.8
175	31	12,774	-49.2		289	15.7	29	13,169	-59.3		246	40.4	31	13,224	-60.4		233	21.4
150	31	13,784	-49.9		289	12.0	29	14,123	-63.9		246	32.8	30	14,170	-66.0		235	19.4
125	31	14,973	-51.0		[illegible]62	10.5	27	15,224	-67.4		249	25.5	30	15,262	-70.5		233	12.4
100	31	16,422	-51.6		280	8.2	25	16,570	-68.0		252	10.3	28	16,586	-70.4		170	1.4
80	31	17,872	-51.0		296	[illegible].5	25	17,920	-64.4		253	4.5	27	17,922	-66.4		94	6.4
70	[illegible]	18,737	-50.8		289	3.5	25	18,746	-61.7		[illegible]5	1.4	26	18,735	-64.2		[illegible]1	12.4
60	31	19,744	-50.7		299	3.1	24	19,710	-58.4		[illegible]	8.7	25	19,687	-61.1		90	16.9
50	2[illegible]	20,[illegible]44	-50.4		350	2.3	24	20,863	-56.5		89	13.8	24	20,828	-58.4		91	20.4
40	29	22,390	-50.0		[illegible]3	[illegible].1	24	22,283	-54.6		88	13.2	23	22,239	-55.7		88	24.5
30	27	24,282	-48.4		5[illegible]	2.5	2[illegible]	24,142	-51.8		87	21.2	23	24,085	-52.4		89	29.0
25	27	25,485	-47.3		60	3.1	23	25,3[illegible]9	-50.0		93	17.7	23	25,268	-50.5		89	29.7
20	25	26,972	-45.5		65	4.7	21	26,798	-48.0		91	21.8	21	26,726	-48.8		87	31.3
15	[illegible]	28,911	-42.[illegible]		80	6.2	17	28,713	-44.3		90	24.3	18	28,635	-45.0		84	34.8
10													10	31,312	-42.3			
7													8	33,711	-40.1			

Note: All observations scheduled at 1200, G. C. T. Pressures shown under station names are the average monthly station pressures for the month of record, corrected to the height of the floors of the instrument shelters used for rawinsonde purposes. "Number of observations" refers to those of dynamic height only. Although the number of temperature observations at any given pressure surface is usually the same as for height, it is possible for temperature to be missing for one or more pressure surfaces of some observations. Relative humidity averages are limited to those observations with temperatures warmer than -40°C. Observations of wind speed and direction are sometimes lost due to limiting angles, i. e., elevation angles less than 6° above the horizon, or any obstruction above the horizon.

The temperature and wind averages are based on 15 or more observations at the surface or 5 observations at a standard pressure level for temperature and 10 for wind. Relative humidity data are not published for standard pressure surfaces for which less than 16 observations are available.

Relative humidity data are computed and expressed on the basis of vapor pressure over water. Unless otherwise indicated, they are obtained from lithium chloride hygristors.

These average values for standard pressure surfaces were obtained by rawinsondes; dynamic height (geopotential) in units of .98 dynamic meter, temperature in degrees Celsius, relative humidity in percent, and resultant winds in degrees and knots.

SOLAR RADIATION DATA

Solar radiation intensities, tabulated in langleys per minute on a surface normal to the direction of the sun.

AUGUST 1962

MADISON, WIS.

Date	Sun's zenith distance, A.M. 78.7°	75.7°	70.7°	60.0°	*	P.M. 60.0°	70.7°	75.7°	78.7°
Air mass	4.69	3.75	2.81	1.88	*	1.88	2.81	3.75	4.69
Aug.									
8	----	----	----	S 1.13	----	----	----	----	----
10	----	----	----	S 1.11	----	----	----	----	----
14	S 0.82	S 0.91	S 1.03	S 1.16	----	----	----	----	----
17	.85	.95	----	S 1.24	1.40	----	----	----	----
18	.79	.87	S .99	S 1.14	----	----	----	----	----
21	S .73	S .84	S .95	----	----	----	----	----	----
Averages	0.80	0.89	0.99	1.16	1.40	----	----	----	----

BLUE HILL OBS., MASS.

Date	Sun's zenith distance, A.M. 78.7°	75.7°	70.7°	60.0°	*	P.M. 60.0°	70.7°	75.7°	78.7°
Air mass	4.89	3.92	2.94	1.96	*	1.96	2.94	3.92	4.89
Aug.									
2	0.77	0.86	0.98	1.14	1.32	1.06	0.88	0.74	0.62
5	.55	.65	.76	.93	1.13	----	----	----	----
15	.81	.84	1.01	1.17	1.37	1.15	.96	.84	.74
16	.74	.86	.95	1.10	1.33	----	----	----	----
18	.76	.89	1.04	1.22	1.42	1.16	.98	.86	.76
19	.88	.98	1.07	1.23	1.41	1.12	.94	.78	.65
21	----	----	----	----	----	1.08	.95	.79	.72
23	.90	.98	1.08	1.28	1.47	----	----	----	----
24	.87	.96	1.08	1.25	1.42	----	----	----	----
25	.87	.96	1.07	1.21	----	1.13	.95	.84	.75
26	----	----	.84	1.16	----	----	----	----	----
Averages	0.79	0.89	0.99	1.17	1.36	1.12	0.94	0.81	0.71

ALBUQUERQUE, N. MEX.

Date	Sun's zenith distance, A.M. 78.7°	75.7°	70.7°	60.0°	*	P.M. 60.0°	70.7°	75.7°	78.7°
Air mass	4.19	3.35	2.51	1.67	*	1.67	2.51	3.35	4.19
Aug.									
1	----	----	----	----	1.38	----	----	----	----
2	0.73	0.79	0.94	1.08	1.37	----	----	----	----
3	.82	.91	1.01	1.17	1.42	----	----	----	----
4	(.73)	.81	.92	1.09	1.39	1.27	1.14	1.00	0.91
5	.93	1.02	1.13	1.28	1.44	1.25	1.11	1.01	.94
6	.95	1.05	1.14	1.27	1.45	----	----	----	----
7	.93	1.03	1.12	1.27	1.43	----	----	----	----
8	.88	.97	1.08	1.21	1.40	1.20	1.06	.96	.87
9	.77	.87	1.00	1.09	1.37	1.21	1.05	.89	.76
10	.83	.94	1.07	1.21	1.40	1.25	1.07	.87	.72
11	.77	.87	1.00	1.16	1.38	1.18	1.03	----	----
12	.72	----	----	----	1.29	----	----	----	----
13	.70	----	----	----	1.30	1.06	.89	.79	----
14	.75	.91	1.03	1.18	----	----	----	.92	.87
15	----	----	----	1.13	1.33	----	----	----	----
16	.67	.82	.94	----	----	----	----	----	----
17	.73	.82	.96	1.12	1.31	1.12	.93	----	----
18	.74	.85	.97	1.14	1.38	1.13	.97	.81	----
19	.77	.87	.97	1.15	1.33	----	----	----	----
20	.77	.85	.98	1.11	1.24	----	----	----	----
21	.74	.86	.98	1.13	1.34	----	----	----	----
22	----	----	----	----	----	1.12	----	----	----
23	.81	.91	1.04	1.19	1.29	----	1.01	.91	.81
24	.90	1.01	1.11	1.26	1.47	1.37	1.24	1.13	1.06
25	.89	.97	1.09	1.23	1.41	1.23	1.07	.91	.85
26	.87	.97	1.07	1.23	1.42	1.22	1.08	1.00	.87
27	.75	.86	.98	1.13	1.29	----	----	----	----
28	.93	1.01	1.10	1.25	1.38	----	----	----	----
29	----	.87	1.02	1.13	----	----	----	----	----
31	----	----	----	----	1.33	----	----	----	----
Averages	0.81	0.91	1.03	1.18	1.41	1.20	1.05	0.93	0.86

F Fog
H Haze
HS Slight haze
HM Moderate haze
S Slight haze - indeterminable
* Values corresponding to true solar noon.
( ) Clouds present

OMAHA, NEBR.

Date	Sun's zenith distance, A.M. 78.7°	75.7°	70.7°	60.0°	*	P.M. 60.0°	70.7°	75.7°	78.7°
Air mass	4.78	3.82	2.87	1.91	*	1.91	2.87	3.82	4.78
Aug.									
5	----	----	----	----	HS1.21	HS1.03	HS0.87	HS0.74	HS0.61
6	----	----	----	----	HS1.18	----	----	----	----
7	HM0.88	HM0.94	HS0.98	HS1.15	HS1.26	----	----	----	----
8	----	----	----	----	HM1.23	HS1.00	----	----	----
9	----	----	----	----	----	----	HM .71	HM .56	HM .42
12	HS .93	----	----	----	HS1.30	HS1.11	HS .97	HS .86	HS .76
13	HS .69	HS .78	HS .90	HS1.07	----	HS1.13	HS1.00	HS .88	HS .77
14	HS .71	HS .80	HS .90	HS1.03	HS1.21	HS .95	HS .89	HS .77	HS .58
16	----	----	----	HS1.11	----	----	----	----	----
18	HM .61	HM .62	HM .78	HM .94	HM1.09	----	----	----	----
21	F	F	F	F	HS1.19	HS .93	----	----	----
24	----	----	----	----	----	HS1.07	HS .80	HM .64	HM .50
25	----	----	.99	1.19	1.28	1.10	.94	.78	.67
26	.83	.90	1.00	1.12	HS1.27	HS1.12	HS .98	HS .86	HS .77
27	HS .71	HS .81	HS .93	HS1.09	HS1.26	HS1.11	HS .97	HS .84	HS .76
28	H .63	H .71	----	----	----	----	----	----	----
29	HM .47	HM .57	HM .67	HM .82	HM1.09	----	----	----	----
31	----	----	----	----	----	----	----	----	HS .80
Averages	0.72	0.77	0.89	1.06	1.21	1.05	0.91	0.77	0.74

MAUNA LOA OBS., HAWAII

Date	Sun's zenith distance, A.M. 78.7°	75.7°	70.7°	60.0°	*	P.M. 60.0°	70.7°	75.7°	78.7°
Air mass	3.36	2.69	2.01	1.34	*	1.34	2.01	2.69	3.36
Aug.									
1	1.15	1.23	1.32	1.43	----	----	----	----	----
2	1.14	1.22	1.32	1.42	1.55	1.40	1.30	1.22	1.15
3	1.14	1.22	1.32	1.42	1.56	1.42	1.33	1.24	1.17
4	1.18	1.26	1.35	1.45	----	----	----	----	----
5	1.19	1.27	1.36	1.47	1.56	1.41	1.30	1.23	1.16
6	1.21	1.29	1.38	1.47	1.56	1.42	1.36	1.22	1.15
7	1.19	1.27	1.36	----	----	----	----	----	----
8	1.21	1.28	1.37	1.47	1.57	----	----	----	----
9	----	1.27	1.35	1.46	1.58	1.43	1.32	1.22	1.13
10	1.20	1.28	1.36	1.46	1.58	1.41	1.31	1.22	1.13
11	1.15	1.23	1.32	1.42	1.55	----	----	----	----
12	1.16	1.24	1.33	1.43	1.56	----	1.30	1.21	1.10
13	1.18	1.26	1.33	1.43	1.56	----	----	----	----
14	1.15	1.22	1.32	1.44	----	----	----	----	----
15	1.14	1.23	1.32	1.43	1.55	----	----	----	----
16	1.16	1.24	1.33	1.44	1.57	1.43	1.33	1.24	1.16
	No obs. August 17 - September 2								
Averages	1.17	1.25	1.34	1.44	1.56	1.42	1.32	1.23	1.14

TUCSON, ARIZ.

Date	Sun's zenith distance, A.M. 78.7°	75.7°	70.7°	60.0°	*	P.M. 60.0°	70.7°	75.7°	78.7°
Air mass	4.56	3.65	2.74	1.83	*	1.83	2.74	3.65	4.56
Aug.									
4	0.87	0.96	1.09	1.22	----	----	1.00	0.90	0.80
17	.47	.58	.74	.97	----	----	----	----	----
18	.60	.72	.84	.97	----	----	----	----	----
19	----	----	----	----	----	1.04	----	----	----
23	----	----	.87	1.06	----	----	----	----	----
24	.67	.80	.95	1.10	----	1.05	.87	.72	.62
26	----	----	----	----	----	1.04	.92	.76	.66
27	.61	.70	.82	1.00	----	.99	.82	----	----
28	.55	.66	.78	.92	----	----	.79	.65	.55
30	.72	.83	.97	1.16	----	1.14	1.00	.89	.79
31	.84	.96	1.09	1.23	----	1.29	1.13	1.03	.93
Averages	0.67	0.78	0.91	1.07	----	1.09	0.93	0.83	0.73

GUAM, M. I.

Date	Sun's zenith distance, A.M. 78.7°	75.7°	70.7°	60.0°	*	P.M. 60.0°	70.7°	75.7°	78.7°
Air mass	4.92	3.93	2.95	1.97	*	1.97	2.95	3.93	4.92
	No observations due to cloudiness								

Langley is the unit used to denote one gram calorie per square centimeter. An explanation of the formula used in computing the air mass values for each station listed above appears in the February 1957 issue (Vol. 8, No. 2, page 64) of this publication.

SOLAR RADIATION DATA

Daily totals and weekly averages of solar radiation (direct and diffuse) received on a horizontal surface, tabulated in langleys.

1962	Albuquerque, N.Mex.	Ames, Iowa	Annette, Alaska	Apalachicola, Fla.	Astoria, Oreg.	Atlanta, Ga.	Barrow, Alaska	Bethel, Alaska	Bismarck, N. Dak.	Blue Hill Obs., Mass.	Boise, Idaho	Boston, Mass.	Brownsville, Tex.	Canton Island, Pacific Area	Caribou, Maine	Charleston, S. C.	Cleveland, Ohio	Columbia, Mo.	Corvallis, Oreg.
Aug. 6----	726	354	499	652	120	629	255	223	679	504	594	524	684	(472)	466	552	210	663	167
Aug. 7----	732	638	641	376	445	552	374	139	659	413	676	385	702	(457)	85	505	562	587	242
Aug. 8----	731	618	297	470	597	672	259	235	555	596	685	576	665	498	119	305	541	669	407
Aug. 9----	730	469	152	562	661	661	159	215	605	131	209	122	676	496	616	597	592	563	578
Aug. 10----	(725)	100	199	682	655	674	155	498	489	91	684	66	673	516	485	643	467	534	703
Aug. 11----	715	390	278	606	597	530	180	401	---	179	669	154	661	518	214	666	549	480	687
Aug. 12----	700	266	462	663	330	552	262	415	668	363	667	316	632	506	555	679	478	636	417
Average--------	(723)	448	361	573	486	610	235	304	609	325	598	306	671	(495)	363	564	486	591	457
Aug. 13----	686	622	450	638	640	516	281	370	635	477	669	449	663	521	510	683	330	686	680
Aug. 14----	662	608	361	650	656	318	328	342	610	319	670	---	639	521	327	608	301	635	677
Aug. 15----	626	391	110	649	562	596	281	220	642	632	663	615	480	544	626	515	603	626	673
Aug. 16----	386	638	211	640	572	501	123	317	643	619	551	612	453	548	604	542	416	658	469
Aug. 17----	696	465	301	221	593	608	208	314	611	281	478	255	580	526	220	211	602	670	441
Aug. 18----	706	534	103	659	427	551	199	427	577	644	657	637	548	510	496	618	577	604	460
Aug. 19----	618	357	112	670	381	521	---	483	613	641	641	637	646	531	517	537	425	621	617
Average--------	626	516	236	590	547	516	237	353	619	516	618	534	573	529	471	531	465	643	574
Aug. 20----	627	250	134	598	251	504	259	163	(606)	382	641	403	613	557	56	631	423	576	577
Aug. 21----	627	572	351	431	491	380	---	347	514	473	555	457	322	560	227	600	553	473	532
Aug. 22----	526	448	81	278	535	429	---	327	540	192	643	157	624	559	404	395	566	573	654
Aug. 23----	684	349	391	---	616	501	---	314	---	661	648	619	618	603	600	432	533	618	636
Aug. 24----	747	155	347	---	586	446	---	255	---	622	642	573	646	583	577	485	476	492	587
Aug. 25----	700	600	330	604	403	518	366	124	---	631	552	587	584	562	538	572	483	676	582
Aug. 26----	703	574	327	333	502	440	166	105	---	627	605	592	445	594	476	393	401	651	484
Average--------	659	421	280	449	483	460	---	234	---	513	612	484	550	574	411	501	491	580	579
Aug. 27----	663	569	185	473	329	547	149	116	---	460	642	392	514	(524)	383	140	451	631	628
Aug. 28----	---	558	535	618	293	627	216	70	---	143	522	160	536	579	383	564	520	636	266
Aug. 29----	589	469	492	601	578	625	145	166	---	45	628	79	568	576	197	557	513	---	543
Aug. 30----	482	448	327	550	592	608	261	456	---	173	619	250	519	587	449	584	491	484	726
Aug. 31----	637	353	497	625	415	552	160	215	---	281	613	347	586	598	318	621	243	385	576
Sept. 1----	572	511	507	577	201	599	342	71	487	234	615	270	586	578	318	562	112	420	574
Sept. 2----	624	545	514	571	225	593	99	106	---	158	603	199	617	552	542	502	476	381	538
Average--------	595	493	437	574	376	593	196	171	---	213	606	242	561	(571)	370	504	401	489	550

1962	Davis, Calif.	Dodge City, Kans.	East Lansing, Mich.	El Paso, Tex.	Ely, Nev.	Fairbanks, Alaska	Flaming Gorge, Utah	Fort Worth, Tex.	Fresno, Calif.	Glasgow, Mont.	Grand Junction, Colo.	Great Falls, Mont.	Greensboro, N. C.	Griffin, Ga.	Cape Hatteras, N.C.	Indianapolis, Ind.	Inyokern China Lake, Calif.	Ithaca, New York	Lake Charles, La.
Aug. 6----	723	696	209	730	709	517	606	692	723	667	888	593	645	691	632	327	863	394	576
Aug. 7----	703	684	493	716	764	154	672	709	730	624	782	484	701	574	---	572	847	262	590
Aug. 8----	669	586	512	711	676	301	367	691	716	635	564	514	602	710	624	593	864	515	573
Aug. 9----	723	633	488	719	636	407	532	663	722	598	467	---	661	718	430	493	838	198	579
Aug. 10----	707	578	706	726	751	530	701	681	727	155	781	475	619	741	679	639	843	149	528
Aug. 11----	701	659	671	705	734	534	697	639	717	668	770	632	665	633	658	-	839	532	518
Aug. 12----	689	625	302	726	738	539	560	607	715	655	607	601	641	607	716	462	838	620	- -
Average--------	702	637	483	719	716	426	591	669	721	572	694	550	648	668	623	514	847	381	561
Aug. 13----	691	645	130	697	730	541	495	520	705	638	747	596	461	532	738	479	812	183	549
Aug. 14----	693	647	663	685	653	---	692	646	674	615	734	628	511	361	694	231	814	107	370
Aug. 15----	684	628	661	703	458	---	607	675	631	652	681	617	591	643	590	600	428	585	367
Aug. 16----	628	641	470	621	500	424	551	602	616	628	620	530	457	580	593	551	767	564	557
Aug. 17----	695	615	689	692	613	401	389	657	688	546	556	404	536	618	492	601	800	445	545
Aug. 18----	684	637	648	683	683	488	314	650	692	542	494	528	575	619	---	629	---	---	553
Aug. 19----	687	629	524	693	706	346	330	633	685	519	632	488	539	525	641	437	--	- -	376
Average--------	680	635	541	682	620	440	483	626	670	591	638	542	524	554	625	504	724	377	474
Aug. 20----	670	555	142	685	539	320	626	646	677	626	572	594	598	506	684	569	800	418	312
Aug. 21----	678	485	618	674	466	335	296	633	671	484	619	411	466	433	679	434	821	523	302
Aug. 22----	669	607	600	552	611	---	407	572	665	177	637	154	529	393	376	603	794	622	484
Aug. 23----	632	543	614	645	702	230	542	612	671	443	659	545	558	521	567	584	795	586	423
Aug. 24----	650	545	520	(587)	694	322	684	547	657	617	763	580	604	450	557	486	791	580	262
Aug. 25----	654	645	204	673	681	175	667	565	644	613	767	553	511	535	585	62	783	544	492
Aug. 26----	645	637	102	696	613	111	647	627	633	601	754	537	581	433	140	349	809	464	360
Average--------	657	574	400	(645)	615	249	553	601	660	509	682	482	550	467	513	441	799	534	377
Aug. 27----	662	637	532	680	686	182	569	649	637	339	625	456	341	446	106	596	781	165	429
Aug. 28----	648	595	577	630	690	208	654	564	684	395	761	288	653	642	410	580	792	491	113
Aug. 29----	637	585	590	(661)	679	79	608	543	686	524	708	340	642	681	641	579	---	450	136
Aug. 30----	630	537	575	598	682	181	471	594	668	418	735	493	511	684	638	497	---	522	570
Aug. 31----	627	395	218	516	681	193	655	592	630	371	746	367	541	598	653	318	---	514	361
Sept. 1----	609	257	479	350	673	109	636	338	633	563	757	531	587	654	563	118	---	176	540
Sept. 2----	608	374	602	270	667	81	621	548	634	244	751	103	594	646	630	361	---	295	495
Average--------	632	483	510	(529)	680	148	602	547	653	408	726	368	553	622	520	435	---	373	378

Note.--Langley is the unit used to denote one gram calorie per square centimeter.
Values in parentheses are interpolated.

SOLAR RADIATION DATA

Daily totals and weekly averages of solar radiation (direct and diffuse) received on a horizontal surface, tabulated in langleys.

1962	Lander, Wyo.	Laramie, Wyo.	Las Vegas, Nev.	Lemont, Ill.	Little Rock, Ark.	Los Angeles, Calif.	Los Angeles, Calif. (Urban)	Manhattan, Kans.	Matanuska, Alaska	Medford, Oreg.	Miami, Fla.	Midland, Tex.	Nashville, Tenn.	Newport, R. I.	Oak Ridge, Tenn.	Oklahoma City, Okla.	Page, Ariz.	Phoenix, Ariz.	Portland, Maine	Prosser, Wash.	Rapid City, S. Dak.	Riverside, Calif.	St. Cloud, Minn.	Salt Lake City, Utah	San Antonio, Tex.	Santa Maria, Calif.	S. Ste. Marie, Mich.	Sayville, New York	Seattle, Wash.	Seattle-Tacoma, Wash	Spokane, Wash.	State College, Pa.	Swan Island, W. I.	Tampa, Fla.	Tucson, Ariz.	Washington, D. C. (Obs & Test Dev Ctr)
Aug. 6	608	595	734	333	596	687	690	622	335	411	621	673	510	533	453	649	669	685	574	395	669	733	538	749	645	(696)	593	467	301	258	434	549	606	529	708	413
Aug. 7	679	609	709	529	587	670	692	613	132	214	564	648	463	461	371	633	594	679	334	218	637	727	673	708	632	714	643	358	303	(303)	273	333	606	339	672	377
Aug. 8	654	538	668	628	603	666	690	638	308	190	365	685	528	607	494	630	540	614	528	302	613	723	624	714	657	692	241	569	561	594	---	410	569	214	647	598
Aug. 9	468	350	697	653	547	676	685	587	528	338	337	694	551	107	561	636	514	607	238	502	472	721	529	678	647	727	707	113	602	632	183	341	591	349	623	256
Aug. 10	643	596	713	584	504	686	705	460	568	588	394	682	609	98	631	645	657	582	82	615	539	742	621	763	620	653	670	67	488	550	---	119	563	427	659	229
Aug. 11	665	652	706	580	570	652	721	588	551	656	294	662	627	178	628	629	644	649	237	603	652	715	147	759	619	702	665	207	503	643	---	597	587	469	631	457
Aug. 12	617	442	709	384	588	629	702	642	551	662	374	632	461	634	562	668	621	625	285	570	643	708	347	755	583	707	68	573	387	391	---	686	600	478	653	554
Average	619	540	705	527	571	667	698	593	425	437	421	668	536	374	529	642	606	634	325	458	604	724	497	732	629	(699)	513	336	449	(481)	---	434	589	401	656	412
Aug. 13	563	444	690	560	585	587	654	599	87	661	286	530	567	602	538	310	643	644	355	619	459	680	600	713	577	701	121	487	602	595	---	226	501	---	654	342
Aug. 14	652	642	631	356	---	593	729	641	192	643	360	636	548	373	555	649	624	633	130	609	462	675	645	728	408	679	699	358	621	652	---	382	564	---	570	591
Aug. 15	611	637	532	605	580	511	552	454	378	647	448	---	556	620	541	433	583	628	693	593	630	544	627	690	434	662	483	544	570	639	---	674	493	441	655	650
Aug. 16	549	584	633	564	572	614	634	619	378	642	505	542	591	586	568	620	416	621	647	532	621	658	656	557	616	403	615	361	421	466	---	613	554	568	522	435
Aug. 17	508	490	656	571	608	624	635	487	373	---	486	645	518	440	458	622	508	561	444	562	581	646	599	313	585	694	583	386	413	434	---	421	563	298	647	512
Aug. 18	456	436	683	617	574	649	662	487	477	640	440	657	584	630	582	611	546	639	516	549	575	683	519	621	628	689	620	579	269	257	---	679	514	606	536	675
Aug. 19	626	415	669	356	569	591	666	556	296	637	499	632	---	578	581	621	390	528	614	564	540	692	541	695	621	687	426	499	391	521	---	575	573	458	552	542
Average	566	521	642	518	581	596	647	549	312	645	432	607	561	547	546	552	530	608	486	576	553	654	598	617	553	645	507	459	470	509	---	510	537	474	591	535
Aug. 20	635	603	642	444	477	612	650	465	105	620	580	623	---	366	551	585	572	612	492	570	598	670	616	632	628	693	602	346	350	339	---	489	577	578	609	470
Aug. 21	490	392	690	567	533	609	653	458	201	502	544	609	456	442	403	607	445	583	347	547	538	697	388	415	603	650	459	251	258	266	629	387	588	379	344	372
Aug. 22	422	470	695	566	565	580	588	503	193	648	581	662	415	364	457	596	512	640	338	587	441	680	415	424	---	473	581	478	512	516	522	671	517	293	540	606
Aug. 23	547	181	673	532	320	609	628	271	272	622	535	646	473	579	518	590	627	629	659	581	516	683	339	712	---	654	215	490	546	593	646	608	537	434	633	509
Aug. 24	630	618	678	416	405	632	650	402	226	597	478	362	447	498	463	293	649	640	634	571	603	649	618	699	604	672	199	559	550	590	639	614	567	299	641	623
Aug. 25	626	606	674	99	419	603	626	597	101	622	522	697	234	612	564	645	643	532	618	545	602	657	609	692	458	640	153	478	279	(399)	580	634	626	505	483	465
Aug. 26	547	559	620	411	600	598	653	597	39	625	249	688	181	560	471	649	613	600	615	432	522	639	608	687	611	551	340	498	389	384	382	521	586	499	626	573
Average	557	490	668	434	474	606	635	470	162	605	498	613	368	489	490	566	580	605	529	547	546	668	513	609	581	619	364	443	412	(441)	566	561	571	427	554	517
Aug. 27	603	498	635	565	592	551	601	602	155	634	214	702	535	461	529	623	554	609	531	494	324	646	557	618	507	660	---	383	221	264	365	380	508	641	631	442
Aug. 28	613	604	664	558	565	536	574	571	150	594	362	683	574	130	575	599	619	612	253	481	591	631	232	684	534	640	573	103	312	364	416	480	421	371	620	356
Aug. 29	304	544	669	543	229	569	570	546	120	603	398	660	549	136	579	576	608	611	118	609	339	636	422	674	548	653	---	269	540	579	597	523	554	422	615	599
Aug. 30	312	367	658	576	340	532	564	531	220	595	414	649	311	282	536	554	622	650	391	621	148	650	129	673	528	593	276	418	511	562	606	615	547	602	637	593
Aug. 31	601	578	671	308	374	479	548	319	454	588	636	580	286	299	432	116	623	649	318	587	584	651	452	672	404	641	268	373	520	546	596	586	571	519	656	576
Sept. 1	594	578	671	469	270	490	613	550	267	575	437	481	279	210	435	368	616	637	138	614	517	677	569	648	492	610	524	205	426	(345)	591	282	470	655	632	453
Sept. 2	593	584	667	394	375	505	594	399	82	579	247	609	255	116	332	781	614	605	345	529	543	661	556	644	518	614	517	88	552	352	583	198	521	404	592	204
Average	517	536	662	488	392	523	581	503	207	595	387	623	398	233	488	517	608	625	299	562	435	650	417	659	504	630	432	263	440	(430)	536	438	513	516	626	460

Note.--Langley is the unit used to denote one gram calorie per square centimeter.
Values in parentheses are interpolated.

NET RADIATION

Net radiation in langleys per day (midnight to midnight) at Huntley, Mont., during the month

Date.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	Avg.
Langleys. . .	[illegible]	351	[illegible]	407	248	341	411	416	310	33	383	420	397	362	405	348	228	320	305	335	299	96	214	313	357	373	90	131	184	267	242	303

The measurement is made with a Beckman and Whitley net exchange radiometer over a plot of sod. The value represents the total incoming minus the total outgoing radiation of all wave lengths.

These data are of an experimental nature and are published as received from the Huntley Exp. Station. The instrument with which they were measured has not been checked by the Weather Bureau.

TOTAL OZONE DATA

The total amount of ozone is expressed in 10^{-3} cm at STP. These data are provisional values applicable to local noon, and are obtained from measurements with a Dobson ozone spectrophotometer using the sun or zenith sky as a light source (see explanation below).

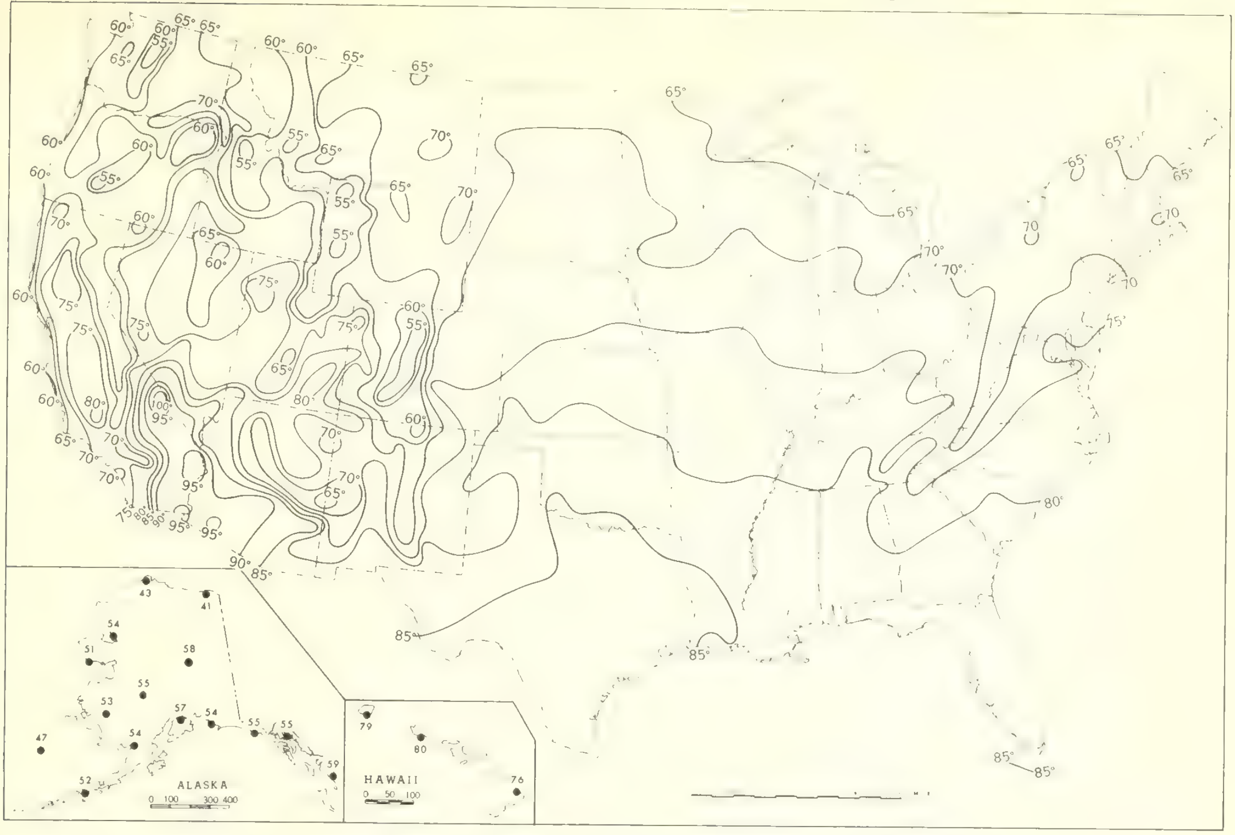
Station	Day of month																														
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31
Bismarck, N. Dak.	295	302	304	307	298	299	280	273	272	294	---	289	273	285	283	274	270	265	---	276	271	283	304	298	---	---	282	320	302	286	297
Caribou, Maine	---	328	316	---	---	299	---	---	292	293	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	295	286	283	286
Green Bay, Wis.	293	286	292	---	---	265	264	281	266	262	---	---	268	262	271	281	273	260	262	272	257	263	261	280	260	267	259	255	258	---	272
Hallett, Antarctica	---	---	---	---	---	---	---	---	---	---	---	---	---	‡199	---	---	---	---	---	---	---	‡242	---	---	---	---	---	---	#266	#279	---
Mauna Loa, Hawaii	275	274	274	269	271	269	271	268	265	269	271	271	268	271	269	272	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Nashville, Tenn.	285	311	313	293	295	290	295	300	302	307	299	284	305	309	315	309	304	305	316	314	307	313	297	319	319	---	290	290	290	281	270
Sterling, Va.	318	308	346	312	---	313	311	297	335	383	---	---	316	370	316	325	345	---	---	326	326	306	333	315	---	---	302	326	297	288	290

The spectrophotometer measures the total amount of ozone in the atmosphere, i. e., the amount contained in a vertical column of air extending from the ground to the top of the atmosphere in the vicinity of the station. The amount of ozone in this column is expressed in terms of thickness of a layer it would occupy at standard temperature and pressure.

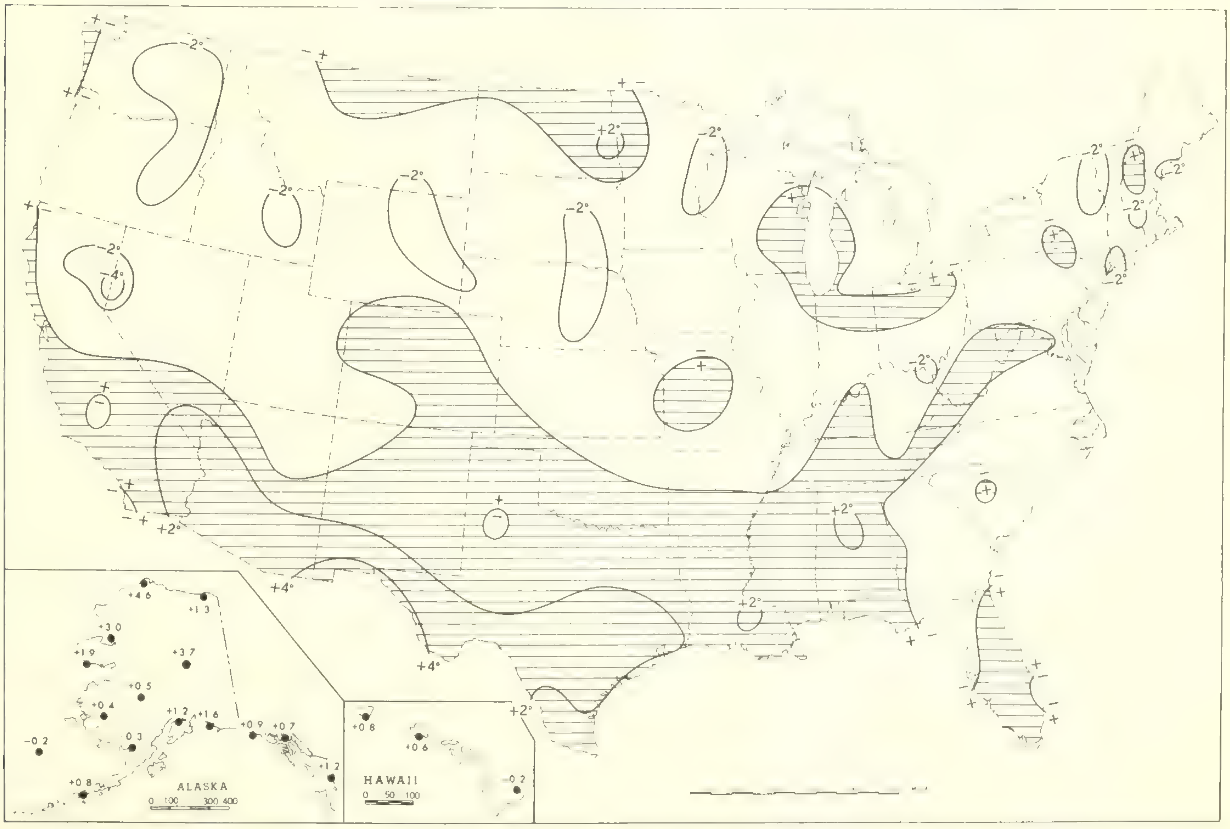
The standard method of measurement is that on direct sun using A(3055Å and 3254Å) and D(3176Å and 3398Å) wavelength pairs. Observations made on the clear zenith sky are slightly less accurate, and are marked with a dagger (†). Observations made on zenith cloud are least reliable, and are marked with an asterisk (*). A detailed description of the spectrophotometer and observational procedures may be found in the "Observers' Handbook For the Ozone Spectrophotometer", Annals of the International Geophysical Year, Volume V, Pergaman Press, 1957.

‡ Moon, focused image observations
# Sun, focused image observations

Chart I. A. Average Temperature (°F.) at Surface, August 1962.



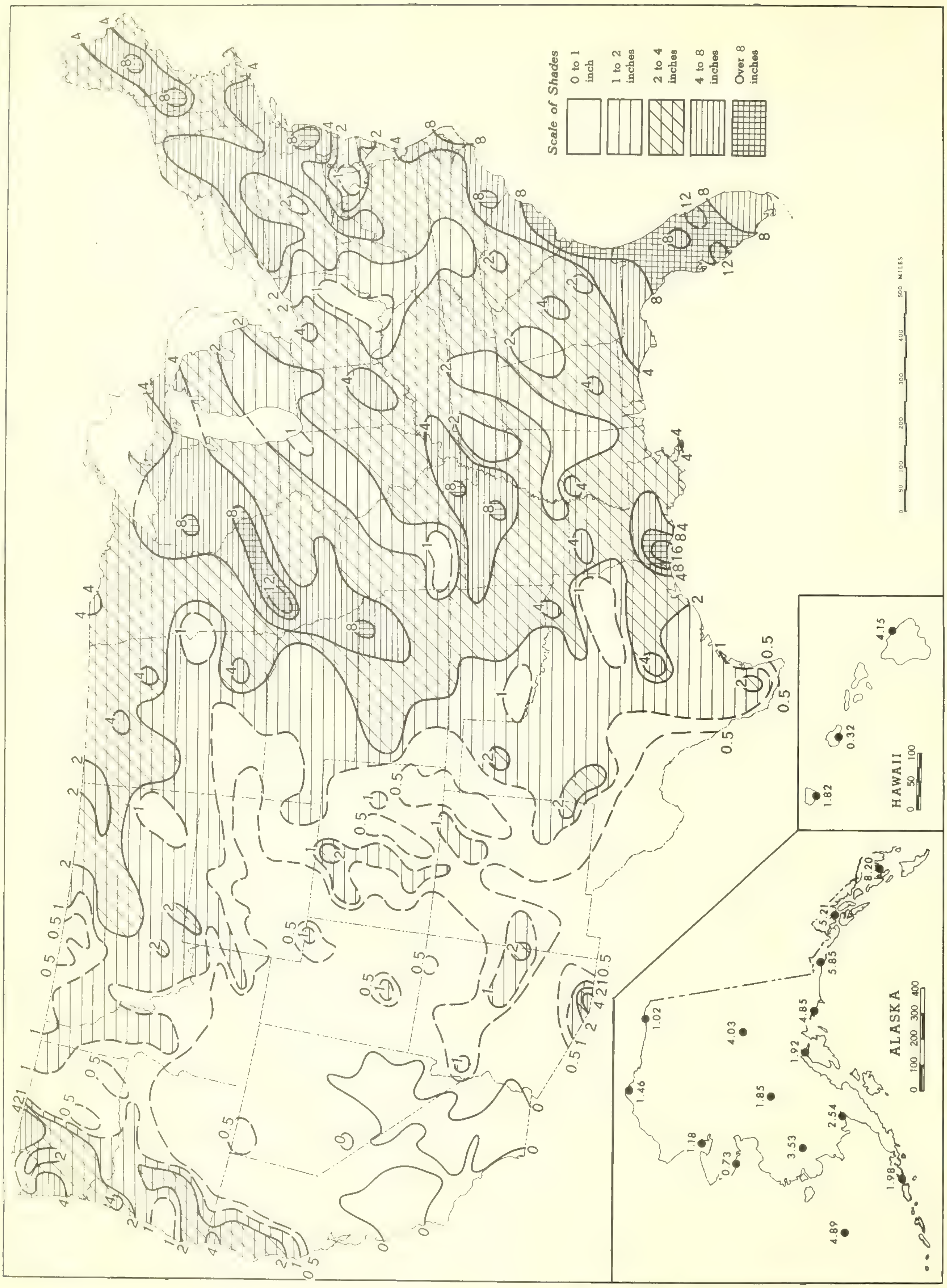
B. Departure of Average Temperature from Normal (°F.), August 1962.



A. Based on reports from over 870 Weather Bureau and cooperative stations. The monthly average is half the sum of the monthly average maximum and monthly average minimum, which are the average of the daily maxima and daily minima, respectively.

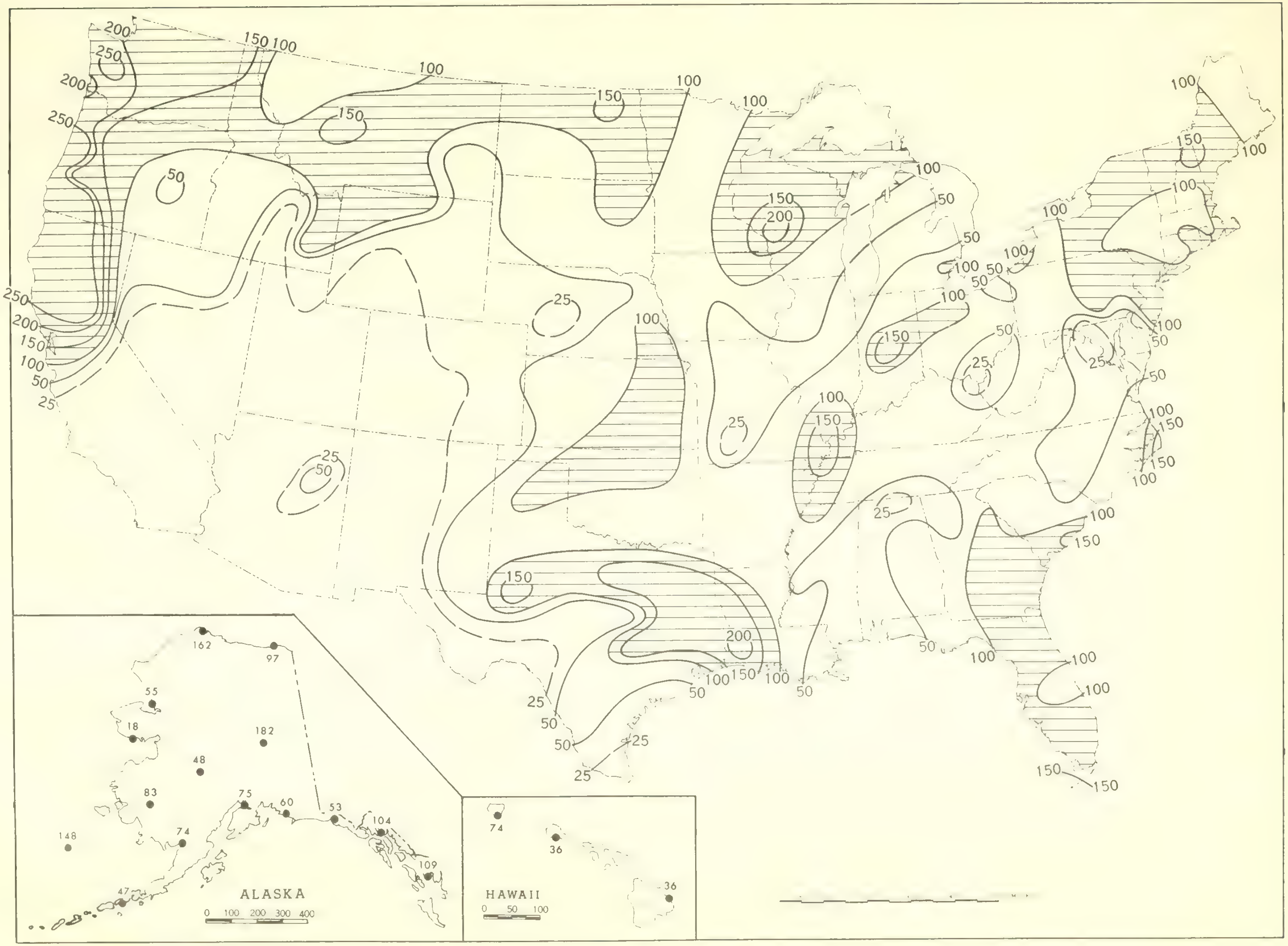
B. Departures from normal are based on the 30-yr. normals (1931-60) for first-order Weather Bureau stations.

Chart II. Total Precipitation (Inches), August 1962.



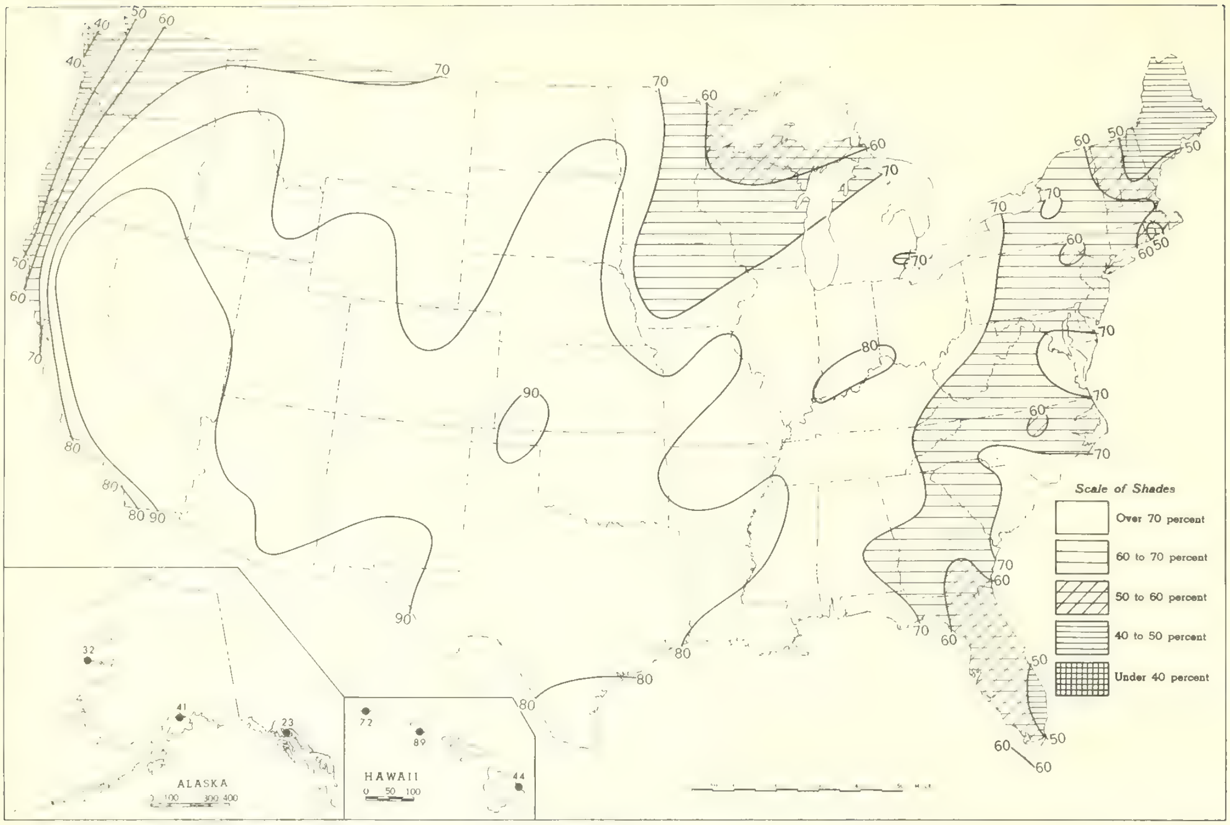
Based on daily precipitation records at about 870 Weather Bureau and cooperative stations.

Chart III. Percentage of Normal Precipitation, August 1962.

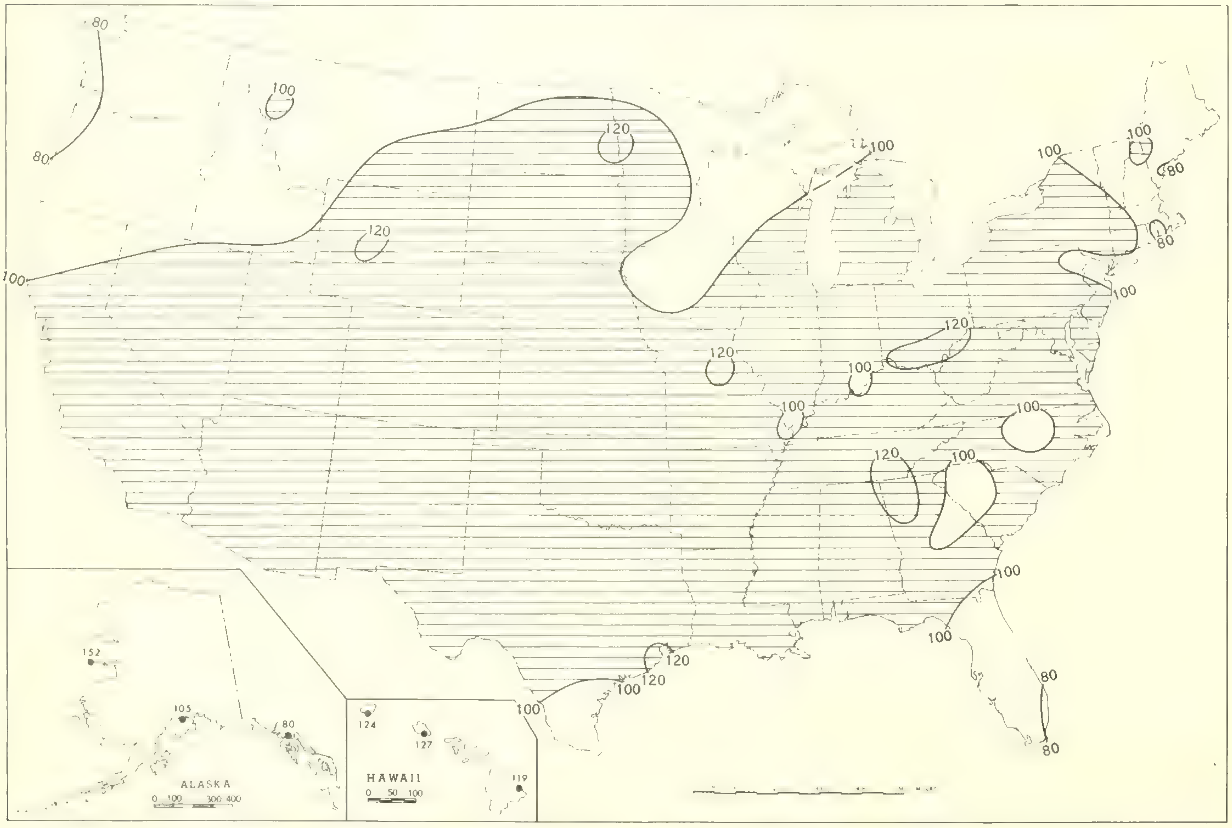


Normal monthly precipitation amounts are computed from 30-yr. normals (1931-60) for first-order Weather Bureau stations.

Chart VI. A. Percentage of Possible Sunshine, August 1962.

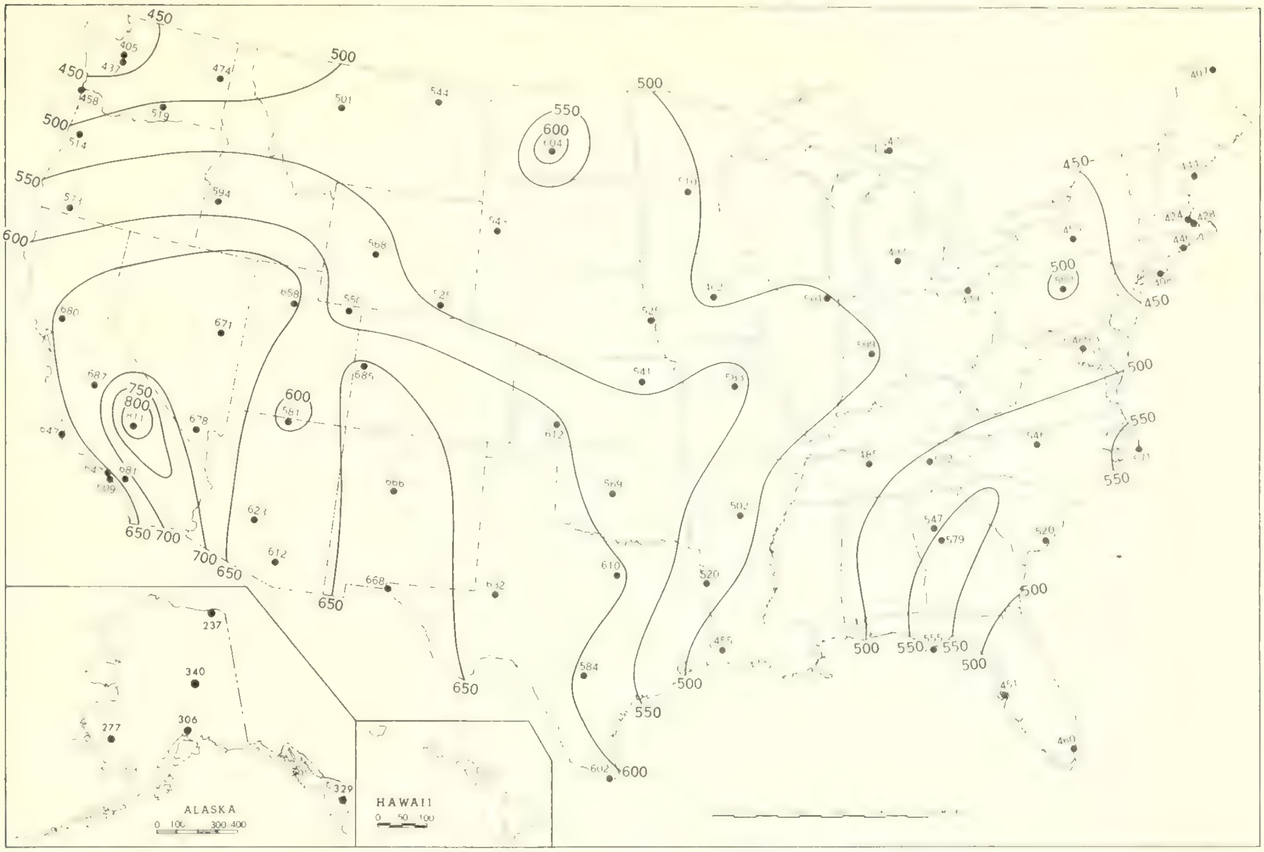


B. Percentage of Mean Monthly Sunshine, August 1962.

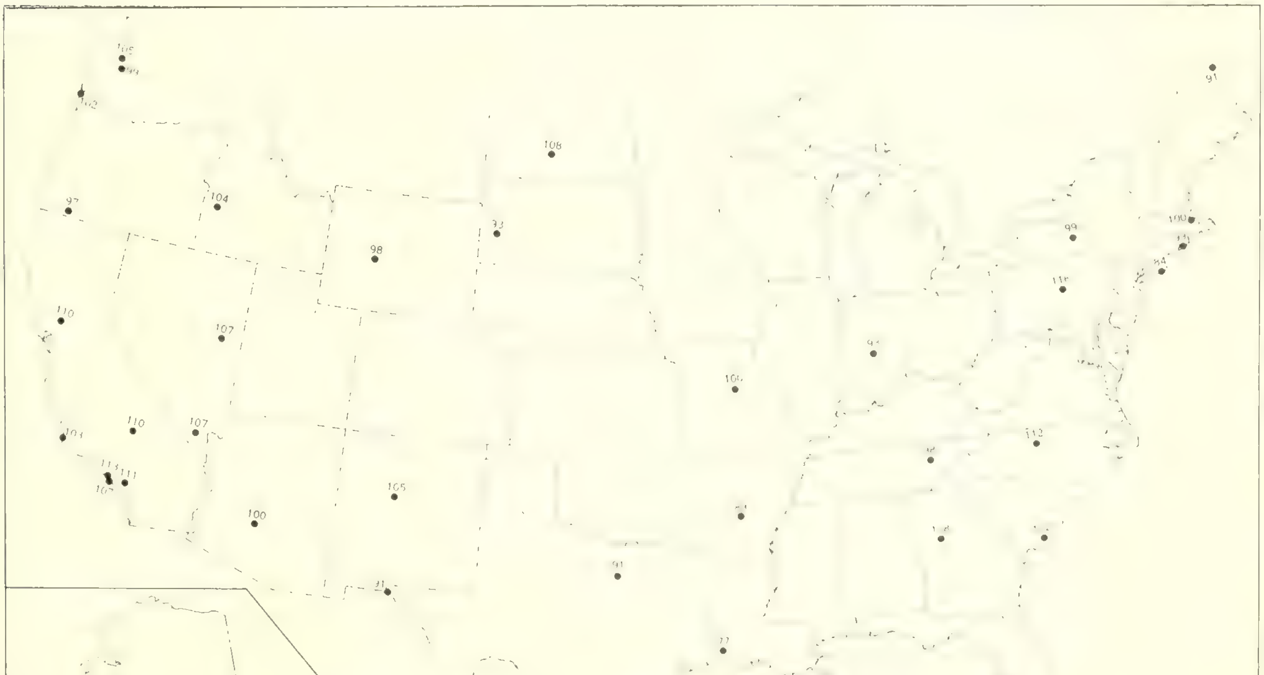


A. Computed from total number of hours of observed sunshine in relation to total number of possible hours of sunshine during month. B. Means are computed for stations having at least 10 years of record.

Chart VII. A. Average Daily Values of Solar Radiation, Langleys, August 1962.



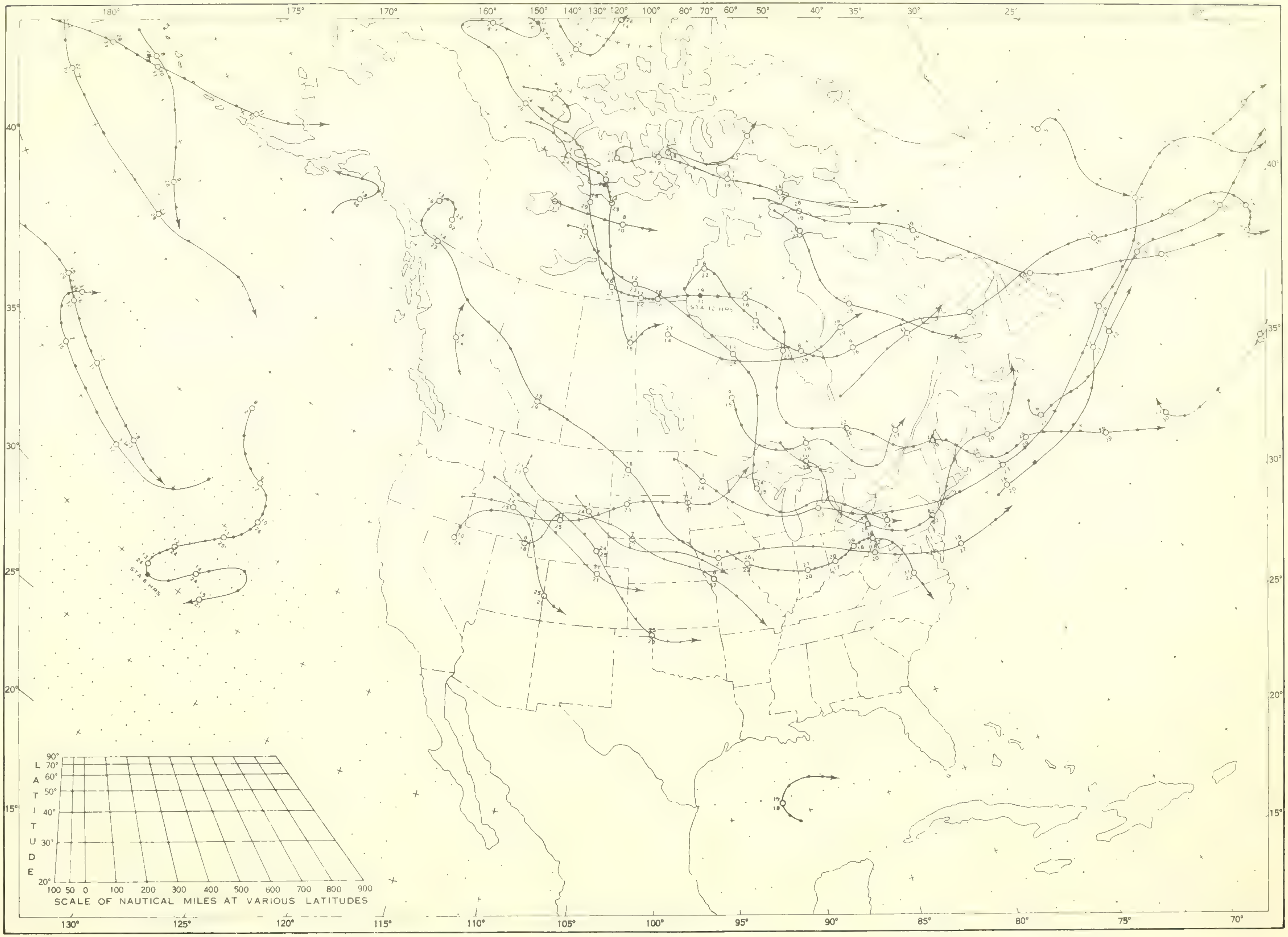
B. Percentage of Mean Daily Solar Radiation, August 1962.



A. Mean daily solar radiation, direct + diffuse, received on a horizontal surface in langleys (1 langley = 1 gm. cal. cm. $^{-2}$) and recorded in International Pyrheliometer Scale of 1956.

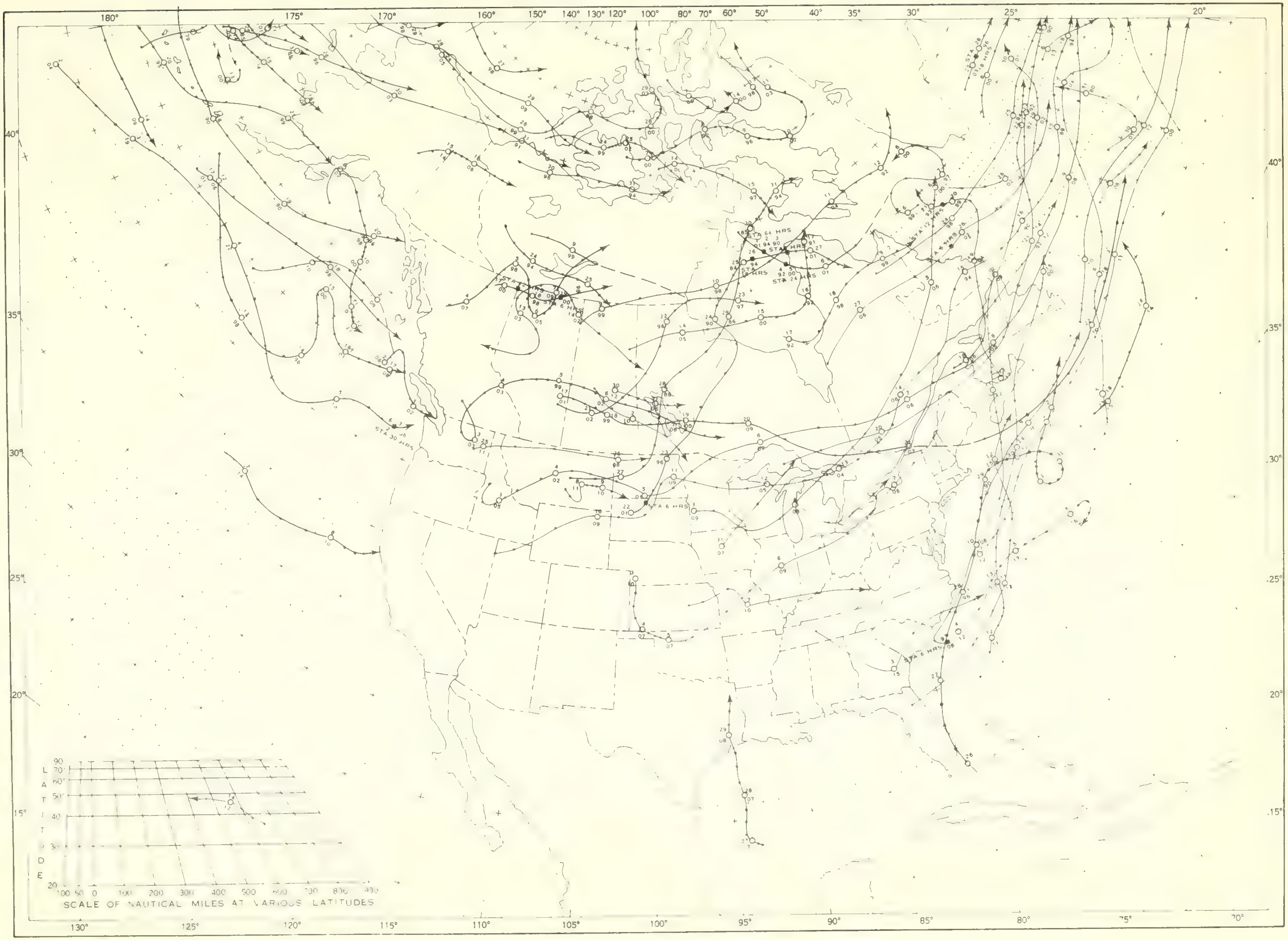
B. Percentage of the mean based on the period 1953-57, and corrected to the International Pyrheliometer Scale of 1956.

Chart VIII. Tracks of Centers of Anticyclones at Sea Level, August 1962.



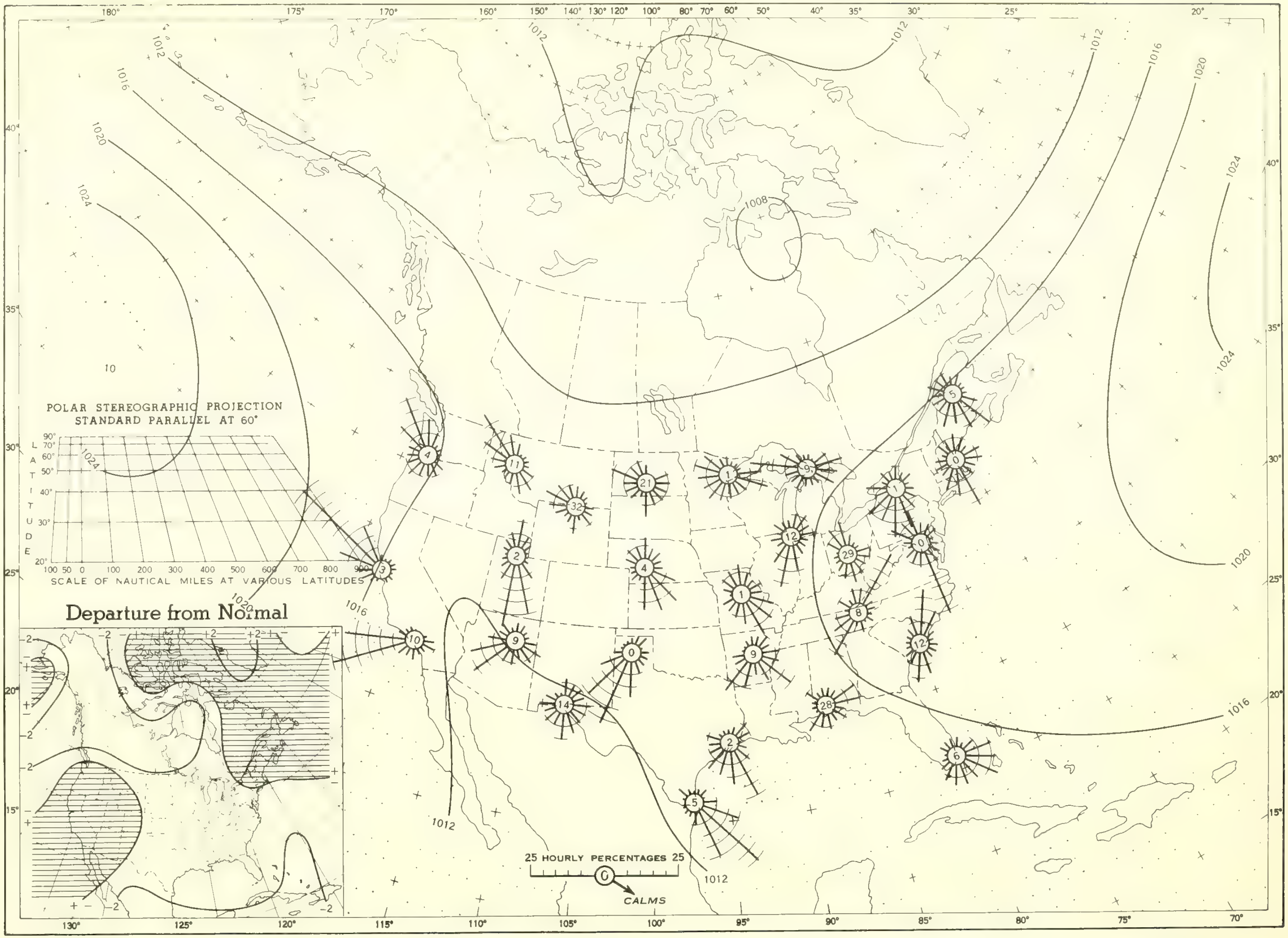
Circle indicates position of center at 7:00 a. m. E. S. T. Figure above circle indicates date, figure below, pressure to nearest millibar. Dots indicate intervening 6-hourly positions. Squares indicate position of stationary center for period shown. Dashed line in track indicates reformation at new position. Only those centers which could be identified for 24 hours or more are included.

Chart IX. Tracks of Centers of Cyclones at Sea Level, August 1962.



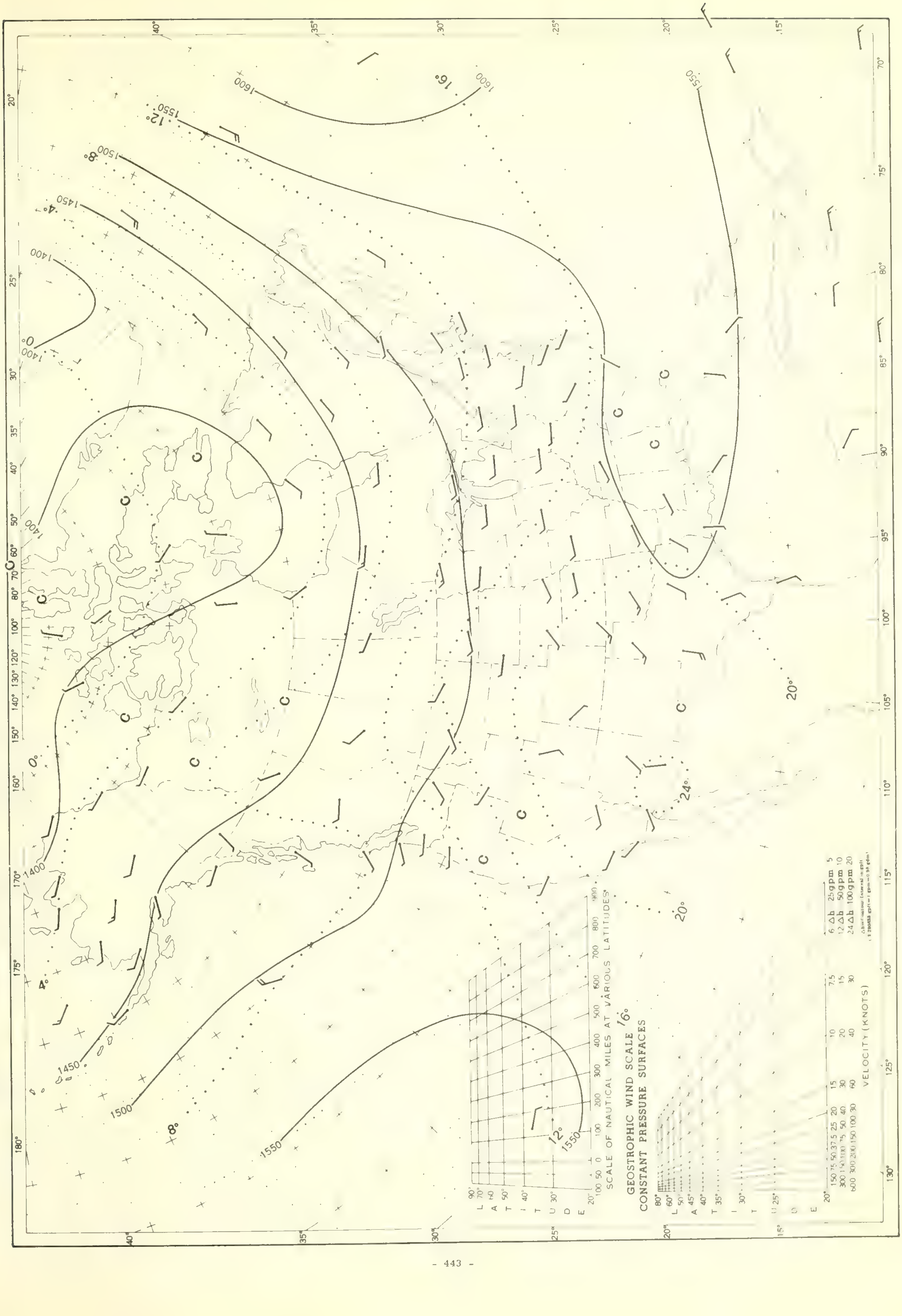
Circle indicates position of center at 7:00 a. m. E. S. T. See Chart VIII for explanation of symbols.

Chart X. Average Sea Level Pressure (mb.) and Surface Windroses, August 1962. Inset: Departure of Average Pressure (mb.) from Normal, August 1962.



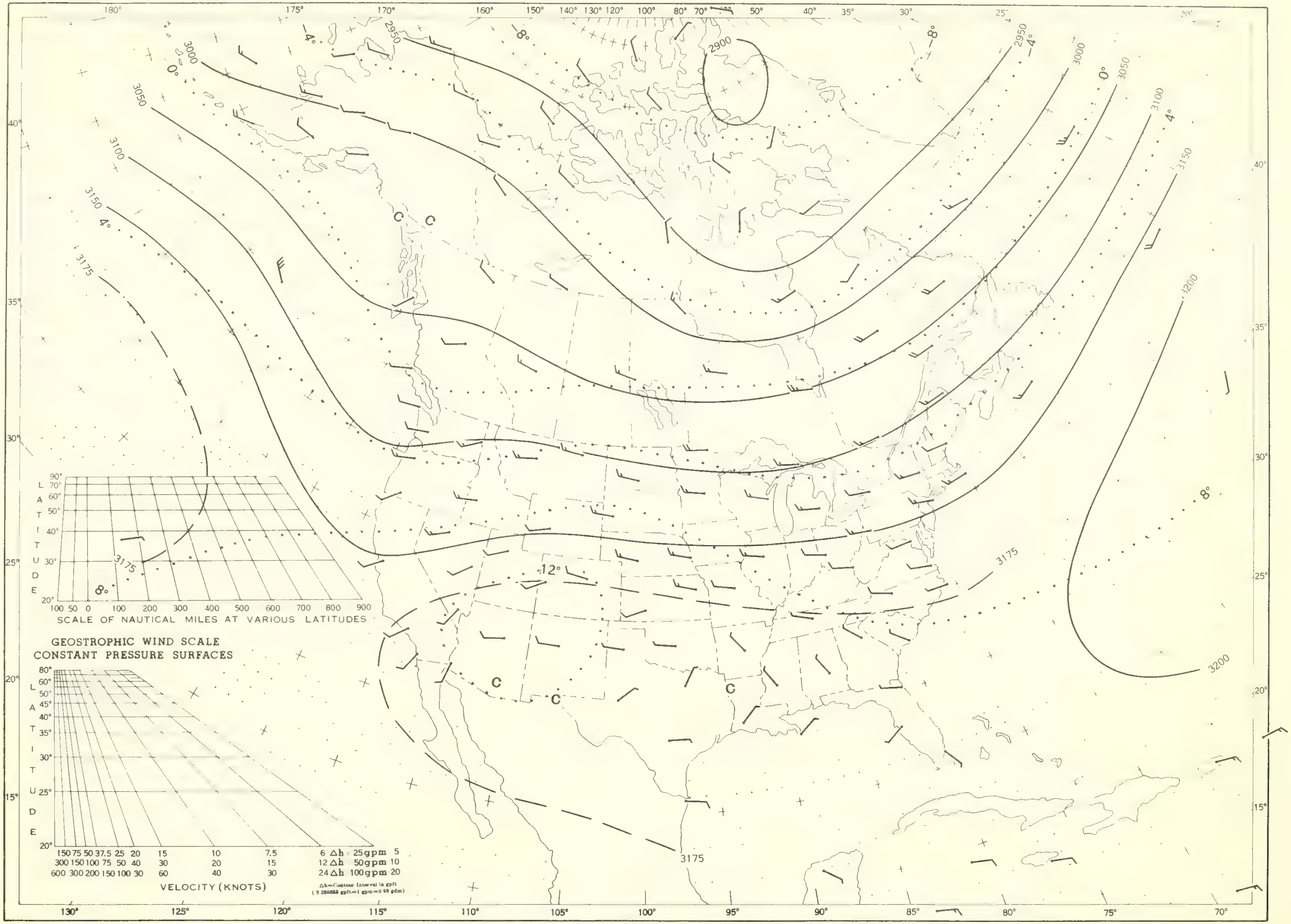
Average sea level pressures are obtained from the averages of the 7:00 a. m. and 7:00 p. m. E. S. T. readings. Windroses show percentage of time wind blew from 16 compass points or was calm during the month. Pressure normals are computed for stations having at least 10 years of record and for 10° intersections in a diamond grid based on readings from the Historical Weather Maps (1899-1939) for the 20 years of most complete data coverage prior to 1940.

Chart XI. 850-mb. Surface, 1200 GMT, August 1962. Average Height and Temperature, and Resultant Winds.



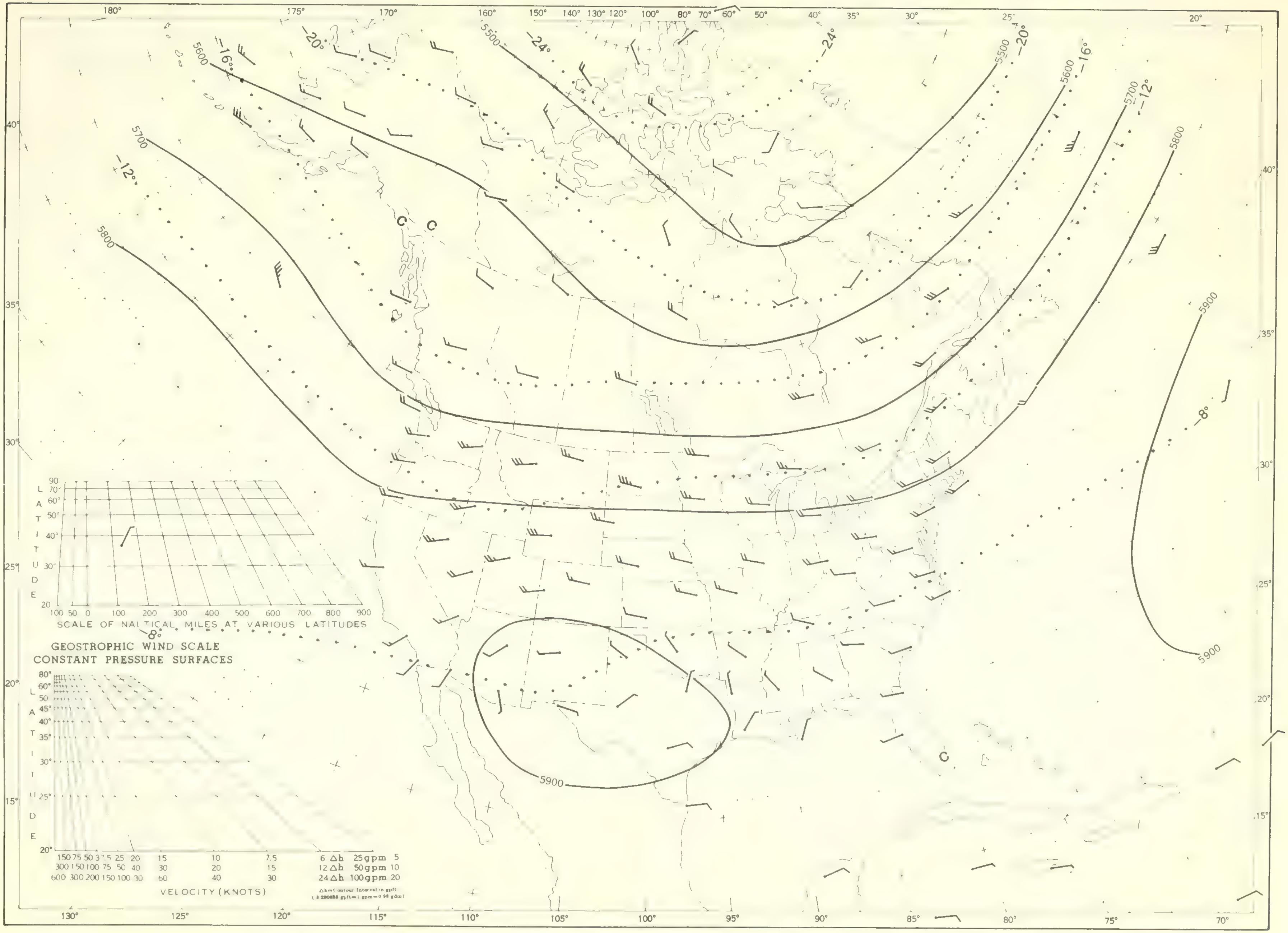
Height in geopotential meters (1 g.p.m. = 0.98 dynamic meters). Temperature in °C. Wind speed in knots; flag represents 50 knots, full feather 10 knots, and half feather 5 knots. All wind data are based on rawin observations.

Chart XII. 700-mb. Surface, 1200 GMT, August 1962. Average Height and Temperature, and Resultant Winds.



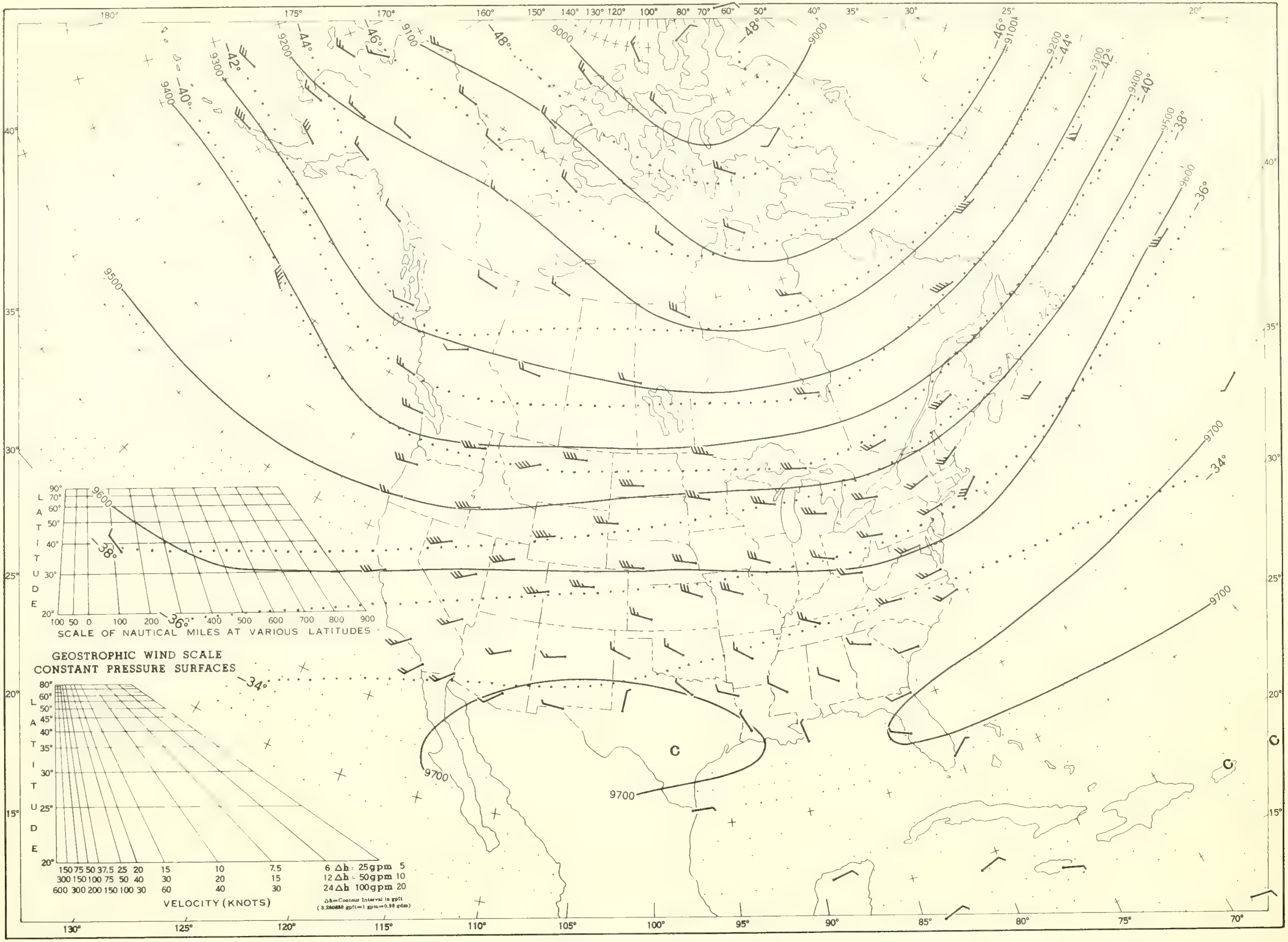
See Chart XI for explanation of map.

Chart XIII. 500-mb. Surface, 1200 GMT, August 1962. Average Height and Temperature, and Resultant Winds.



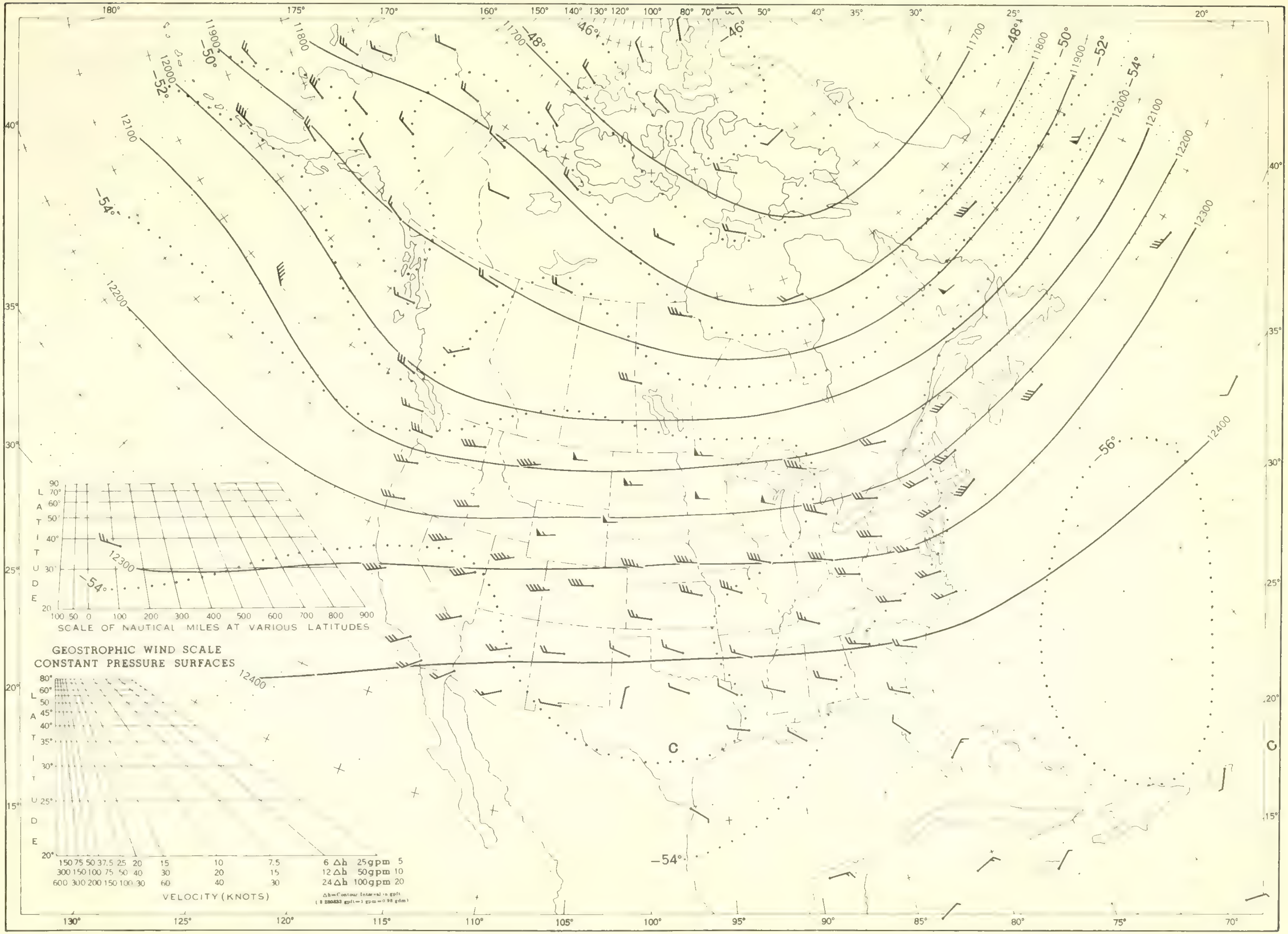
See Chart XI for explanation of map.

Chart XIV. 300-mb. Surface, 1200 GMT, August 1962. Average Height and Temperature, and Resultant Winds.



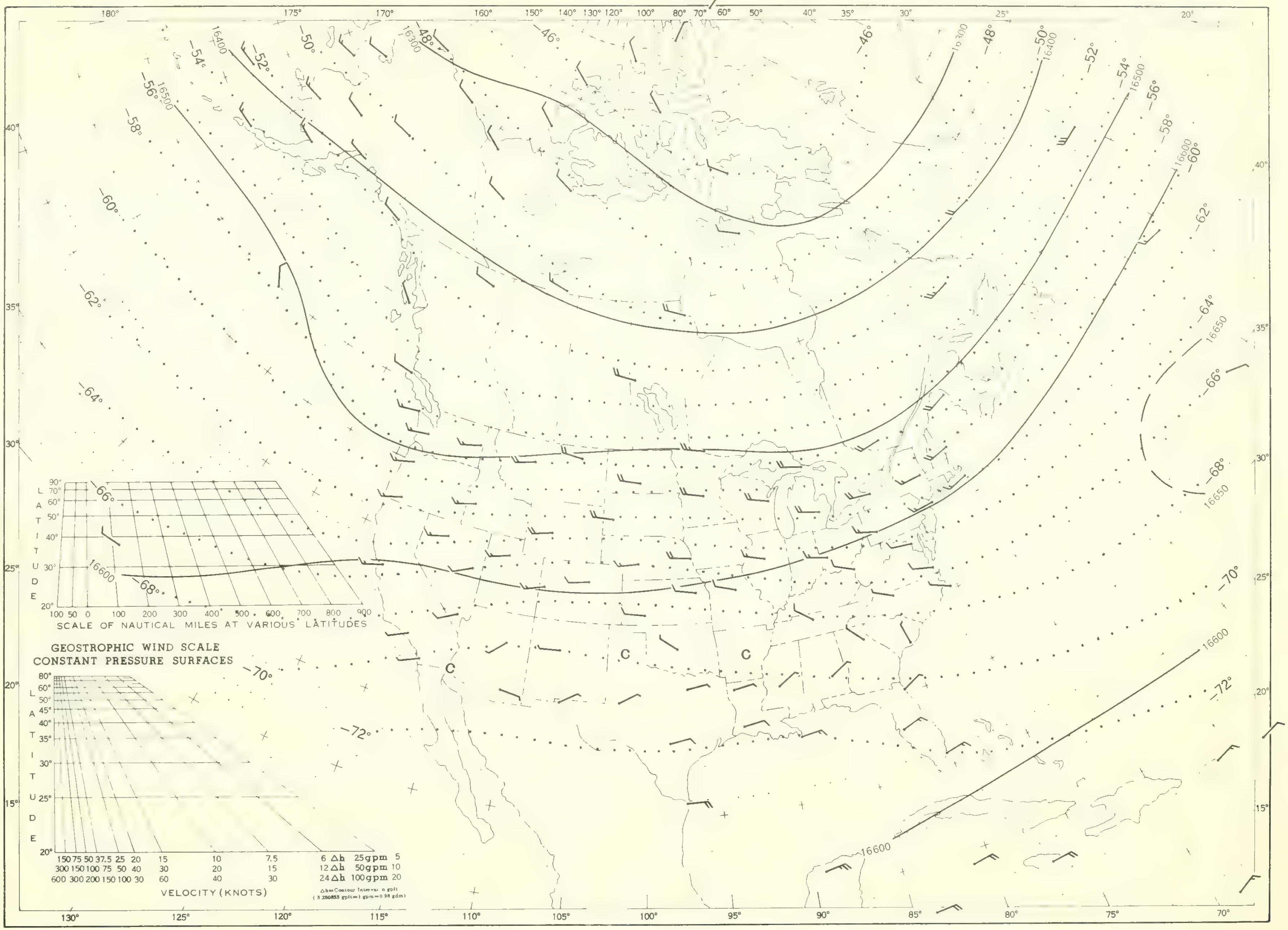
See Chart XI for explanation of map.

Chart XV. 200-mb. Surface, 1200 GMT, August 1962. Average Height and Temperature, and Resultant Winds.



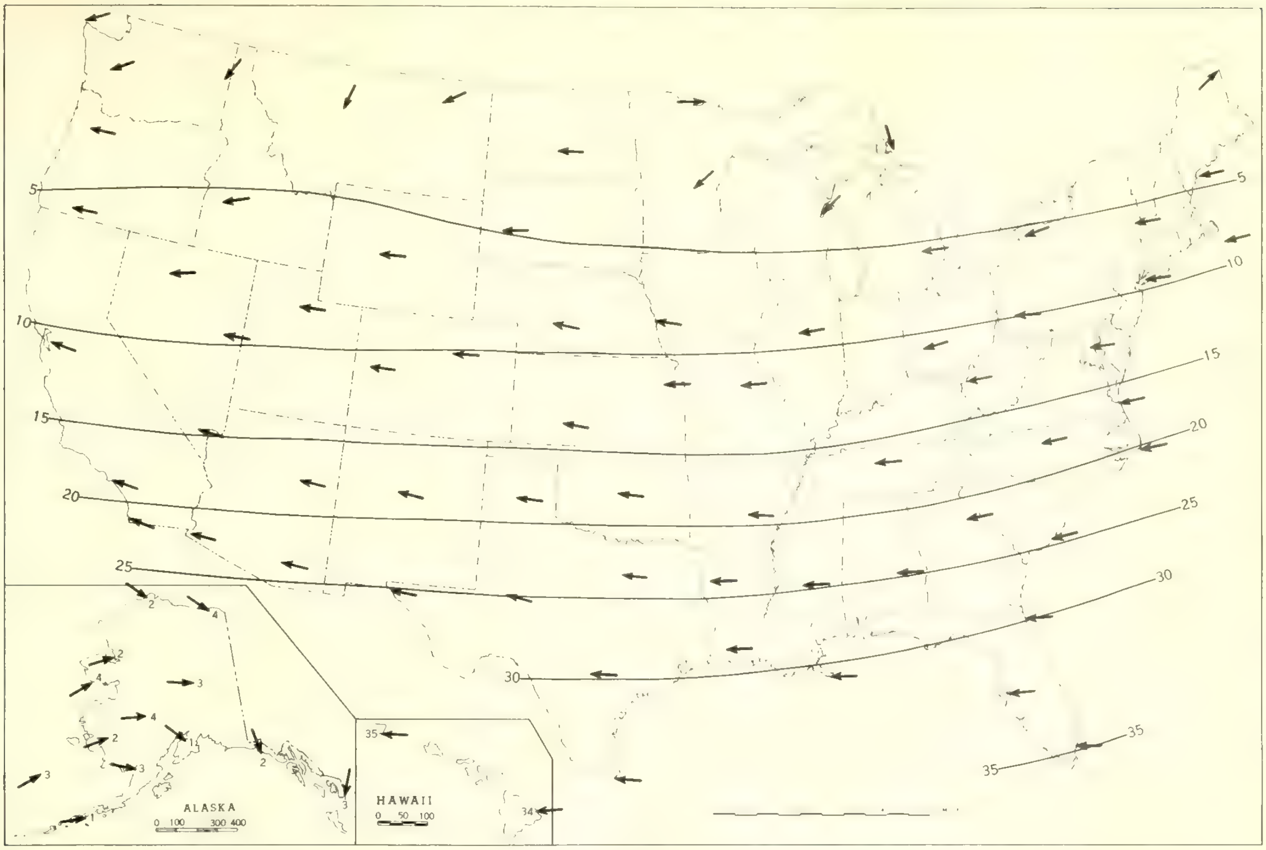
See Chart XI for explanation of map.

Chart XVI. 100-mb. Surface, 1200 GMT, August 1962. Average Height and Temperature, and Resultant Winds.

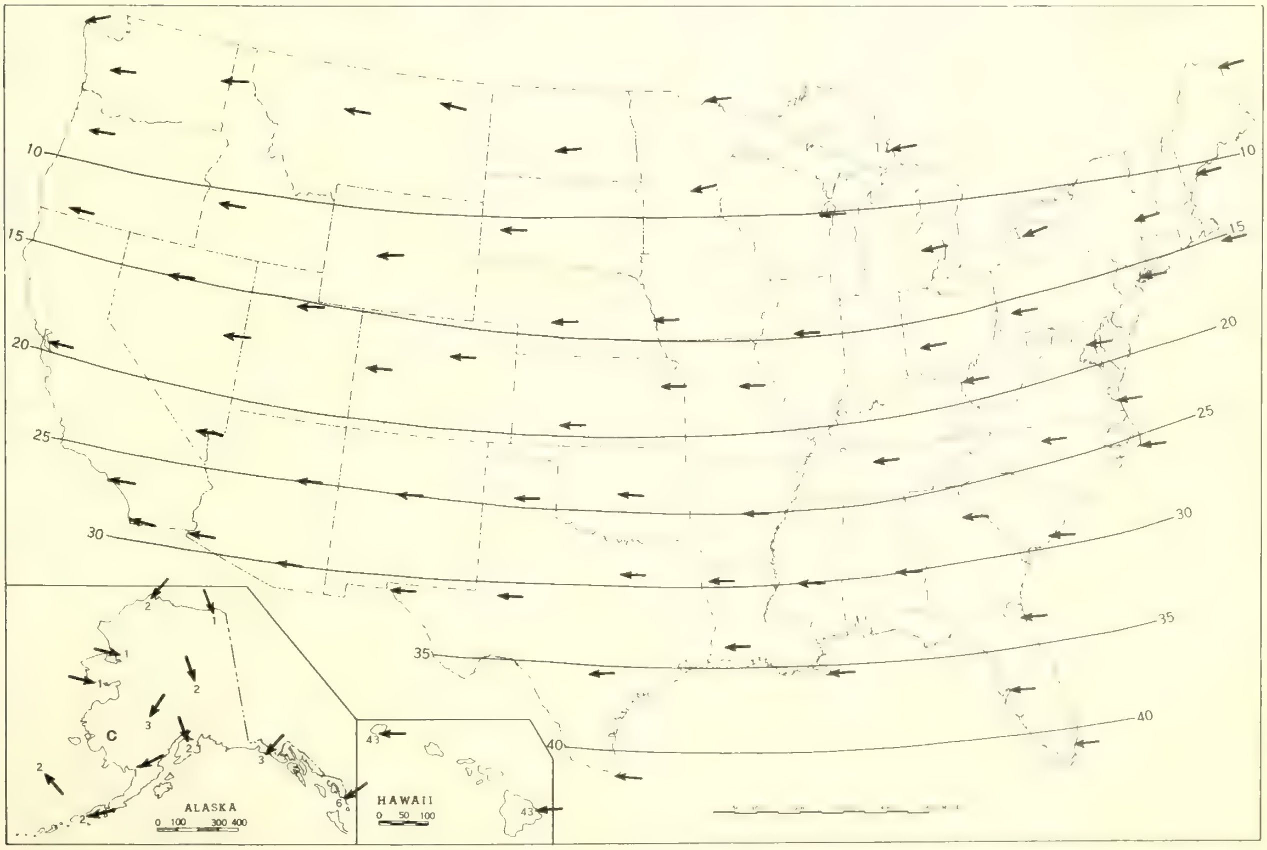


See Chart XI for explanation of map.

Chart XVII. A. 50-mb. Surface, 1200 GMT, August 1962. Resultant Winds.



B. 30-mb. Surface, 1200 GMT, August 1962. Resultant Winds.



Wind speed (isotachs) in knots. Arrows show resultant wind direction. All wind data are based on rawin observations.

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NOTE: Delayed data and corrections will be carried in the June and December issues of this publication.

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CLIMATOLOGICAL DATA

NATIONAL SUMMARY

Volume 13 No. 9 SEPTEMBER 1962

GENERAL SUMMARY OF WEATHER CONDITIONS

September was unseasonably cool in middle and northern sections east of the Rocky Mountains and quite mild in Gulf coastal areas and the Pacific Northwest. Precipitation was more frequent than usual in much of the Country. Monthly totals ranged from much above normal in portions of the lower Rocky Mountain region and middle Mississippi Valley to much below in a large portion of the Far Southwest and a few small scattered areas elsewhere. The month's rainfall helped restore soil moisture in many sections along the Gulf and Atlantic coasts. Crops matured without serious frost damage, and no hurricanes moved inland.

TEMPERATURE. --Temperatures for the month averaged more than 4° below normal in the east-central Great Plains, Ohio Valley, and in some sections of the Great Lakes region and Northeast. This was the coldest September since 1900 at Grand Island, Nebr.; since 1918 at Minneapolis, Minn.; since 1924 at Atlanta, Ga.; and the coldest during a record dating back to 1871 at Philadelphia, Pa.

Unusually low temperatures occurred during cold air intrusions early and late in the month. Stations with lowest temperatures for so early in the season during the first cold spell included Billings, Mont., 31° on the 4th; Lansing, Mich., 34° on the 6th; Cheyenne, Wyo., 25° on the 8th; Rapid City, S. Dak., 28° on the 10th; and Tulsa, Okla., 48° on the 10th. Some stations recording their lowest temperatures for so early in the season during the second cold spell included Albany, N. Y., 30°, Columbus, Ohio, 31°, Huntington, W. Va., 36°, and Raleigh, N. C., 41°, all on the 21st; and Rome, Ga., 36° and Fort Myers, Fla., 46° on the 29th.

Above normal temperatures were limited mainly to the Gulf coastal sections during the first decade, but during the following week they were above normal everywhere except in the Pacific Northwest. The latter half of the month was almost continuously cooler than normal in the eastern half of the Country and above normal in the western half. Fort Myers, Fla., recorded its highest temperature for September, 99°, on the 4th, and Pocatello, Idaho, reported a late season high there of 91° on the 18th.

PRECIPITATION. --In an area extending from eastern portions of Kansas and Oklahoma through Tennessee, rainfall for the month ranged up to more than 200 percent of normal with amounts exceeding 10 inches at a number of stations. Some of the largest monthly totals included 14.13 inches at Malvern, Ark.; 13.02 at Yates Center, Kans.; 12.60 at Miami, Okla.; 13.71 at Joplin, Mo.; and 11.02 at Greencastle, Ind. Springfield, Mo., had 9.15 inches for its second wettest September on record, and Tulsa, Okla., its second wettest with 10.50 inches.

Another area of heavy precipitation, relative to normal, included northern and western portions of Texas, southern and western New Mexico, eastern Arizona, western Colorado, and southeastern Utah. Polar, Tex., recorded 14.18 inches for the month and Monticello, Utah, 4.82 inches.

In the Atlantic Coastal States where precipitation totaled near normal for the month, there were two main periods of rainfall, the 16th and 17th during a frontal passage, and the 27th and 28th when an area of low pressure gained considerable storm intensity as it moved up the Atlantic coast from the central Gulf area. Storm totals ranged from 1 to over 3 inches in coastal areas from North Carolina to southern New England.

In most of California, Nevada, and western portions of Arizona and Utah, precipitation was either extremely light or entirely absent. No measurable precipitation fell in Yuma, Ariz., from April through September, the driest such period there since 1880. Seasonal precipitation at Los Angeles, Calif., was still less than a measurable amount at the end of September. Other areas with less than 50 percent of normal precipitation included eastern Colorado, portions of northern Montana and North Dakota, an area around the southern end of Lake Michigan, and extreme southern Louisiana. Denver, Colo., had only 30 percent of normal rainfall for the period July through September. Great Falls, Mont., had 0.01 inch for its third driest September on record. Chicago, Ill., measured 1.62 inches for the period August through September, the least in 92 years for that period.

SNOWFALL. --Late in the first decade heavy snow fell in the northern Rocky Mountains as far south as Colorado, and light snow in the Nebraska Panhandle and the Little Fork-Ray area of Minnesota. On the 8th Red Lodge, Mont., reported 14 inches of snow on the ground; 2.4 inches fell at Lander, Wyo., the heaviest so early in the autumn there since 1929; and 2.3 inches at Sheridan, Wyo., on the 8th and 9th was the earliest in the season there since 1907. Billings, Mont., measured 6.3 inches during the month, the most for September since 1894.

DESTRUCTIVE STORMS AND OTHER UNUSUAL WEATHER PHENOMENA. --The storm responsible for heavy rains in the East on the 27th and 28th was accompanied by high winds in southern New England. Trees and utility lines were damaged, and high waves sank pleasure craft and damaged installations along the shore.

Seattle, Wash., had its first tornado of record on the 28th.

During a period of heavy rains in southern Florida on the 20th and 21st, Sarasota reported over 16 inches in 24 hours, and Fort Myers had 9.24 inches in 24 hours. Considerable flooding and crop damage occurred.

CONDENSED CLIMATOLOGICAL SUMMARY

Section	Temperature						Precipitation			
	Monthly extremes						Monthly extremes			
	Station	Highest	Date	Station	Lowest	Date	Station	Greatest	Station	Least
		°F			°F			In.		In.
Alabama	5 Stations	101	11+	Heflin	33	29	Bay Minette	10.16	Aliceville	0.00
Arizona	2 Stations	114	17+	Alpine	26	28	Sells	6.78	Ehrenberg	.00
Arkansas	Eudora	99	13	Mammoth Spring	39	29	Malvern	14.13	Monticello 3S	1.68
California	Death Valley	115	18	2 Stations	19	19	Crescent City 1N	2.29	237 Stations	.00
Colorado	2 Stations	98	19+	Fraser	6	10	Wolf Creek Pass 1E	3.75	3 Stations	T
Connecticut	Danbury	88	14	Coventry	22	22	Collinsville 1S	4.90	Falls Village	1.76
Delaware	Lewes 1SW	95	14	3 Stations	34	22	Wilmington NCastle WBAP	3.65	Bridgeville 1NW	2.42
Florida	2 Stations	102	5+	2 Stations	45	29	Myakra River St. Park	22.49	Pensacola WB City	3.11
Georgia	7 Stations	99	29+	Blairsville Exp Sta	31	29	Brunswick FAA	21.19	Ailey	1.24
Hawaii	Mana, Kauai	93	4	Haleakala RS, Mawi	38	30+	Papaikou Mawka, Hawaii	14.96	10 Stations	.00
Idaho	Glenns Ferry	100	18	Kilgore	14	9	Bonners Ferry 1SW	3.65	Buhl	T
Illinois	3 Stations	96	13+	2 Stations	31	29+	Brookport Dam 52	9.27	Park Forest	.59
Indiana	2 Stations	95	14+	Winamac	27	21	Greencastle 1E	11.02	Ogden Dunes	.61
Iowa	Woodward 7N	95	18	Delaware 3WSW	25	19	Council Bluffs 6NE	4.02	Creston 2SW	.88
Kansas	Aetna 2S	104	13	Saint Francis	34	10	Yates Center	13.02	Norcatur 2N	.27
Kentucky	Owensboro 2W	98	13	Cynthiana 2	31	21	Paducah	11.16	La Grange 2NNW	1.42
Louisiana	2 Stations	100	15+	Chatham	41	29	Homer Exp Sta	7.33	St. Joseph Exp Sta	.67
Maine	St. Francis	85	1	2 Stations	24	22	Woodland	5.64	Brassua Dam	1.86
Maryland	Baltimore WBAP	99	1	Oakland 1SE	25	21	Pocomoke City 1S	6.08	Rockville	1.50
Massachusetts	Adams	90	1	West Cummington	23	22	Worcester WBAP	5.42	Ware	2.12
Michigan	Benton Harbor AP	92	14+	2 Stations	20	29	Brevort	6.86	Benton Harbor AP	1.01
Minnesota	Beardsley	91	7	Cotton 7E	17	20	Glenwood	5.53	Caribou 2S	1.31
Mississippi	Pelahatchie	101	2	2 Stations	39	29	Vance	6.62	Pearlington 2NNE	.00
Missouri	Festus 2NW	99	13	Albany	31	20	Joplin FAA Airport	13.71	Weldon Spring Exp Farm	1.26
Montana	Ballantine	92	6	Jackson	9	8	Troy 18N	3.97	Iliad	.00
Nebraska	Oshkosh	99	11	Harrisburg 10NW	18	9	Hartington	4.51	3 Stations	T
Nevada	Sun Manor Las Vegas	110	18	Charleston	10	11+	Boulder City	1.63	3 Stations	.00
New Hampshire	Berlin	91	1	Grafton	20	22	Pinkham Notch	5.48	Concord WBAP	1.76
New Jersey	2 Stations	93	2+	2 Stations	30	22	Princeton Water Works	5.10	Belmar	2.10
New Mexico	Orogrande	102	1	Dulce	18	10	Buckhorn	6.90	Abbott	.26
New York	Dansville	96	1	3 Stations	22	22+	Allegany State Park	6.10	Stewart Field	1.58
North Carolina	2 Stations	98	14+	Transou	28	21	Lumberton 6NW	11.67	Canton 1SW	2.30
North Dakota	Bismarck WB Airport	96	7	Belcourt Indian Res	20	20	Colgate	6.05	Harvey	T
Ohio	Chilo Dam 34	95	13	Tom Jenkins Dam	24	21	Centerburg Water Works	8.37	Eaton	.93
Oklahoma	2 Stations	104	13	4 Stations	38	10	Miami	12.60	Boise City 2E	.55
Oregon	Modoc Orchard	103	17	Seneca	11	9	Valsetz	5.50	Alkali Lake	.09
Pennsylvania	2 Stations	96	1	2 Stations	24	21+	Indiana 3SE	10.02	Holtwood	1.83
Puerto Rico	Guayama	96	25+	Caguas 2ENE	61	28+	Maricao	14.31	Mona Island	.55
Rhode Island	Greenville	85	14	2 Stations	29	22	Block Island WBAP	4.24	Woonsocket	3.27
South Carolina	3 Stations	99	12+	3 Stations	38	29+	Chester 2WSW	10.88	Greenville WBAP	2.28
South Dakota	do	100	11+	Deerfield	18	10	Pickstown	4.73	2 Stations	T
Tennessee	5 Stations	98	4+	Mountain City 2	29	21	Newbern	9.52	Bethpage	2.10
Texas	Eagle Pass	109	9	Dalhart FAA Airport	37	10	Polar	14.82	Bravo	.20
Utah	St George PH	104	18	Strawberry Hwy Sta	10	8	Monticello	4.82	Callao	.00
Vermont	Bennington 2NNW	92	1	Somerset	21	22	Searsburg Station	5.12	Bennington 2NNW	2.58
Virginia	3 Stations	98	1	Monterey	23	22	St. Paul	6.29	Dale Enterprise	1.01
Washington	Priest Rapids Dam	99	6	Mt Spokane Summit	19	8	Wind River	7.13	Wenatchee FAA AP	.02
West Virginia	Harpers Ferry Natl.Monument	97	1	Canaan Valley	20	21	Cairo 3S	8.06	Franklin 2NE	1.65
Wisconsin	Racine	91	12	2 Stations	20	20	Cumberland	7.44	Madison WB City	1.07
Wyoming	Yoder	94	11	Lamar Ranger Sta	5	9	Buffalo 15SW	2.87	Cody 23SW	T

+ And also on an earlier date or dates.

NOTE: Dates in the above Condensed Climatological Summary apply to the period 24 hours prior to time of observation. In some cases the actual occurrence is on the calendar date preceding that shown. (See individual Climatological Data for times of observations).

CLIMATOLOGICAL DATA

ENGLISH UNITS

State and Station	Elevation (ground)	Pressure		Temperature											Average relative humidity	Precipitation							Wind					No. of days (sunrise to sunset)			Sky cover, tenths (sunrise to sunset)	Possible sunshine
												No. of days							No. of days		Snow, Sleet				Fastest mile							
		Station Ø	Sea level	Average maximum	Average minimum	Average	Departure from normal	Highest	Date	Lowest	Date	Max. 90°F. or above	Min. 32°F. or below	Average dew point		Total	Departure from normal	Greatest in 24 hours	.01 inch or more	With thunderstorms	Total	Maximum depth on ground	Average speed	Prevailing direction	Speed	Direction	Date	Clear, 0-3	Partly cloudy, 4-7	Cloudy, 8-10		
ALABAMA	Ft.	Mb.	Mb.	F.	°F.	°F.	F.	F.		°F.				°F.	%	In.	In.	In.			In.	In.	M.p.h.		M.p.h.							%
BIRMINGHAM	610	992.2	1017.4	86	64	74.8	0.5	98	3	45	29	9	0	61	66	3.69	0.36	2.66	4	5	0.0	0	7.2	E	23	E	21+	11	11	8	5.3	69
HUNTSVILLE	605	994.3	1017.3	85	63	73.5	- 1.0	100	12+	43	29	10	0	61	68	3.78	0.69	1.43	9	4	0.0	0	8.6	SE	35*	WNW	4	8	9	13	6.0	
MOBILE	211	1013.1	1015.4	88	68	78.0	0.6	95	5	55	30+	12	0	68	76	4.87	-1.38	1.60	14	13	0.0	0	5.4	ENE	21*	E	14	5	14	11	5.8	
MONTGOMERY	195	1008.4	1016.5	89	68	78.5	1.4	99	5+	51	29	13	0	66	69	3.28	-0.69	1.18	5	6	0.0	0	7.1	ENE	24	SW	16	9	12	9	5.4	69
ALASKA												B																				
ANCHORAGE	90	1001.5	1006.3	53	38	45.6	- 2.2	65	2	28	29	0	5	37	75	1.45	-1.05	0.61	11	0	0.0	0	5.6	SSE	23*	SE	2	3	7	20	7.7	43
ANNETTE	110	1009.4	1013.5	60	50	55.2	1.6	71	4+	42	11	3	0	49	80	10.50	0.62	1.73	22	1	0.0	0	8.6	SE	29*	S	29+	3	4	23	8.3	
BARROW	22	1008.7	1009.3	33	27	30.1	- 0.4	43	5	19	28+	0	28	26	84	0.98	0.34	0.29	18	0	5.4	2	16.0	ENE	36*	SW	4	0	3	27	9.5	
BARTER ISLAND	39	1006.9	1008.8	35	28	31.5	- 0.6	49	11+	24	28+	0	29	27	83	1.06	0.12	0.39	13	0	9.7	4	10.7	E	40*	WSW	3	1	3	26	9.0	
BETHEL	125	1004.6	1006.0	48	36	41.9	- 2.7	55	8	26	15	0	3	38	85	2.31	-0.28	0.93	17	0	1.4	1	13.1	S	37*	S	1	1	4	25	8.8	
COLD BAY	94	1004.7	1008.6	50	43	46.8	- 0.7	60	2	35	25	0	0	42	84	3.84	-0.48	0.82	24	0	0.0	0	16.7	NW	43*	SE	17	0	2	28	9.3	
CORDOVA	40	1004.9	1006.6	55	39	46.9	- 0.7	63	1	30	29+	0	6	41	82	12.45	-0.06	2.54	19	0	0.0	0	6.3	ESE	23*	SE	19	2	5	23	8.5	
FAIRBANKS	436	990.6	1007.7	50	34	41.5	- 2.1	63	19	27	18	0	15	35	80	1.40	0.30	0.72	11	0	0.5	0	6.3	N	21*	WSW	3	1	7	22	8.5	
JUNEAU	17	1009.5	1010.5	55	42	48.5	- 0.4	64	2	32	11	0	1	44	85	9.75	3.08	1.67	23	1	0.0	0	10.1	ESE	31*	ESE	24	1	5	24	9.0	22
KING SALMON	43	1003.8	1005.8	53	37	44.8	- 3.1	62	2	25	16	0	7	38	77	1.45	-1.63	0.38	15	0	T	0	11.0	NNW	40*	ENE	19	0	8	22	8.4	
KOTZEBUE	10	1005.4	1005.8	43	35	39.3	- 1.6	53	2	23	30	0	9	34	83	1.96	0.74	0.84	16	0	5.9	2	12.8	E	52*	WNW	3	1	2	27	9.2	
MC GRATH	334	994.8	1007.6	50	32	40.8	- 3.1	63	2	20	16	0	19	34	77	1.23	-1.38	0.79	13	0	0.7	T	5.1	N	29*	SSW	2	1	6	23	8.5	
NOME	13	1004.9	1005.2	44	35	39.5	- 2.4	51	1	25	30	0	12	35	82	1.61	-1.06	0.82	17	0	1.5	T	14.6	SW	35*	WNW	2	0	5	25	9.0	
ST. PAUL ISLAND	22	1008.2	1009.2	48	37	42.1	- 2.5	52	1	28	4	0	7	39	88	2.20	-0.87	0.40	21	0	0.0	0	16.8	NW	46*	NW	18	2	3	25	8.7	
SHEMYA	122	1013.5	1017.2	51	44	47.1	- 1.2	53	14+	37	4	0	0	44	87	2.55	0.30	1.03	13	0	0.0	0	16.8	SW	46*	N	20	6	6	18	7.2	
YAKUTAT	28	1007.1	1008.1	55	41	47.9	- 1.3	63	1	32	28+	0	2	44	86	18.30	1.75	2.99	22	1	0.0	0	8.5	ENE	46*	SE	24	2	3	25	8.6	
ARIZONA																																
FLAGSTAFF	6993	793.1	1016.3	74	43	58.7	0.2	84	18+	33	1	0	0	41	61	2.48	0.90	1.12	13	15	0.0	0	5.4	S	21*	SSE	8	12	8	10	4.5	
PHOENIX	1109	970.9	1008.9	98	71	84.3	0.0	109	17	60	30	24	0	56	41	0.39	-0.34	0.17	4	3	0.0	0	4.6	SE	35*	N	6	20	6	4	2.8	83
PRESCOTT	5014	848.0	1013.0	84	55	69.2	0.5	94	17	46	29	7	0	47	54	2.90	1.71	0.85	13	10	0.0	0	8.7	SSW	43	W	20	11	17	2	4.1	74
TUCSON	2584	923.8	1009.6	93	70	81.3	0.4	104	17	60	30+	19	0	56	47	2.86	1.86	2.40	7	9	0.0	0	9.2	S	38	SE	13	17	7	6	3.9	81
WINSLOW	4880	852.7	1014.0	85	55	69.7	- 1.5	96	18	44	29	10	0	46	51	0.87	-0.04	0.45	8	9	0.0	0	7.8	ESE	35*	WSW	28	13	9	8	4.4	
YUMA	199	1003.4	1008.5	103	76	89.1	0.0	114	2	62	29	29	0	59	44	T	-0.38	T	0	1	0.0	0	8.3	SSE	30	SE	4	23	3	4	2.2	88
ARKANSAS																																
FORT SMITH	449	999.7	1016.5	82	63	72.4	- 2.5	96	14	50	28	4	0	64	80	4.99	1.35	1.10	13	6	0.0	0	6.7	ENE	26	W	4	7	7	16	6.8	48
LITTLE ROCK	257	1003.9	1016.9	83	64	73.2	- 1.1	94	14+	44	29	5	0	65	78	3.83	0.60	1.30	9	5	0.0	0	6.0	ENE	30	NE	14	5	12	13	6.7	45
TEXARKANA	361			85	66	75.8	- 0.7	94	14+	52	29+	7	0	68	82	4.54	1.81	2.04	12	6	0.0	0	7.2	ENE								96
CALIFORNIA																																
BAKERSFIELD	494	994.6	1011.9	90	62	75.9	- 0.6	100	17	55	29+	17	0	51	45	0.02	-0.06	0.02	1	2	0.0	0	6.7	NW	17*	NW	26	28	1	1	0.5	
BISHOP	4108	873.0		90	45	67.4	- 0.3	97	18	38	20	17	0			0.46	0.27	0.46	2	2	0.0	0						26	2	2	1.0	
BLUE CANYON	5280	840.2		74	55	64.5	1.1	84	17+	40	28	0	0			0.18	-0.45	0.11	2	0	0.0	0	6.8	SSW	24	SSW	12+	25	1	4	1.7	
BURBANK	699	986.1	1011.9	84	59	71.2	- 1.4	94	23+	53	14	7	0	55	66	T	-0.27	T	0	0	0.0	0	6.0	ESE	17*	ESE	3	22	7	1	2.2	
EUREKA U	43	1013.5		62	53	57.1	0.7	70	13	48	12	0	0			0.71	0.07	0.66	3	0	0.0	0	5.2	N$	28	SW	28	5	4	21	7.7	39
FRESNO	326	999.3	1011.0	92	58	74.7	0.8	101	2	52	21	21	0	50	48	T	-0.10	T	0	2	0.0	0	5.7	WNW	19	N	25	29	1		0.4	99
LONG BEACH	34	1010.8	1012.5	79	59	68.9	- 2.2	93	23	52	5	2	0	59	78	0.00	-0.06	0.00	0	0	0.0	0	5.9	WNW	16*	W	28+	16	12	2	3.9	
LOS ANGELES	97	1009.1	1012.8	74	62	67.7	0.2	85	19	58	29+	0	0	60	80	T	-0.17	T	0	0	0.0	0	6.3	WSW	17*	WSW	24+	16	10	4	4.1	
LOS ANGELES U	312			80	61	70.9	- 1.0	94	23	57	29+	2	0	56	68	0.00	-0.23	0.00	0	0	0.0	0	5.0	W$	17	W	28	22	6	2	2.5	80
MT SHASTA R	3544	891.6		81	45	63.1	1.6	95	5	36	29	8	0			0.57	-0.30	0.53	3	0	0.0	0						22	4	4	2.1	
OAKLAND	3	1013.5	1014.9	70	55	62.4	- 2.7	88	16	50	23	0	0	52	76	0.19	-0.01	0.18	3	0	0.0	0	9.8	WNW	23*	SW	27	13	10	7	4.4	
POINT ARGUELLO	367	1000.0		63	52	57.3	- 2.5	71	30+	48	19	0	0			0.12	0.01	0.02	10	0	0.0	0	6.4		22*	NW	20	3	2	25	8.4	
RED BLUFF	341	998.6	1011.3	90	59	74.3	- 1.7	103	16	54	30+	18	0	45	40	0.25	-0.12	0.25	1	0	0.0	0	8.1	SSE	32	SE	28	26	1	3	1.4	94
SACRAMENTO	17	1011.2	1012.3	88	54	70.9	- 2.7	97	17+	50	30+	12	0	53	63	0.06	-0.13	0.02	3	1	0.0	0	6.4	SSW	25	SW	12	25	3	2	1.2	94
SACRAMENTO U	23			86	55	70.6	- 2.3	96	16	52	20+	11	0			0.11	-0.11	0.09	2		0.0	0										
SANDBERG R	4517	862.5		81	60	70.5	1.2	90	2+	46	29	2	0			0.00	-0.21	0.00	0	0	0.0	0	9.4	WNW	30*	N	29	28	2		0.5	
SAN DIEGO	13	1008.8	1012.0	75	62	68.4	- 1.0	89	23	59	9	0	0	59	76	0.00	-0.15	0.00	0	0	0.0	0	6.9	NW	20	NW	23	16	12	2	3.8	67
SAN FRANCISCO	8	1013.9	1014.5	69	53	61.0	- 2.9	86	16	48	23	0	0	52	79	0.09	-0.10	0.09	1	0	0.0	0	12.2	WNW	37	W	19	15	10	5	3.7	
SAN FRANCISCO U	52			63	53	58.3	- 3.7	77	30	50	24+	0	0			0.22	0.00	0.21	3	0	0.0	0	9.6	SW$	27	SW	19					56
SANTA MARIA	238	1005.1	1013.8	70	51	60.5	- 2.3	80	30	44	20	0	0	54	86	T	-0.16	T	0	0	0.0	0	6.0	WNW	24*	WNW	20	13	14	3	4.2	
COLORADO																																
ALAMOSA	7536	774.8		73	36	54.9	- 0.8	81	4+	21	10	0	8			0.81	0.04	0.38	10	9	0.0	0						11	11	8	4.9	

See footnotes at end of table

CLIMATOLOGICAL DATA

ENGLISH UNITS

State and Station	Elevation (ground)	Pressure		Temperature											Average relative humidity	Precipitation							Wind					No of days (sunrise to sunset)			Sky cover, tenths (sunrise to sunset)	Possible sunshine
												No of days							No. of days		Snow, Sleet				Fastest mile							
		Station Ø	Sea level	Average maximum	Average minimum	Average	Departure from normal	Highest	Date	Lowest	Date	Max. 90 F. or above	Min. 32 F. or below	Average dew point		Total	Departure from normal	Greatest in 24 hours	.01 inch or more	With thunderstorms	Total	Maximum depth on ground	Average speed	Prevailing direction	Speed	Direction	Date	Clear, 0-3	Partly cloudy, 4-7	Cloudy, 8-10		
COLORADO	Ft.	Mb.	Mb.	F.	F.	F.	F.	F.		F.				F.	%	In.	In.	In.			In.	In.	M.p.h.		M.p.h.							%
COLORADO SPRINGS	6173	814.4	1016.5	76	48	62.1	1.0	89	18+	33	10	0	0	38	51	0.41	-0.66	0.31	4	7	T	0	9.3	N	35*	N	8	12	10	8	4.8	
DENVER	5283	839.5	1014.5	79	46	62.4	- 1.1	91	12	31	9+	5	2	38	48	0.19	-0.94	0.09	5	1	0.7	T	9.0	SSW	29	S	27+	14	5	11	4.9	76
GRAND JUNCTION	4849	859.8	1013.4	81	53	67.4	- 0.4	92	18	41	9	5	0	31	34	1.41	0.50	0.82	5	5	0.0	0	6.1	SE	31	NW	19	18	7	5	3.3	82
PUEBLO	4639	857.8	1014.2	81	51	66.0	- 0.6	94	18	34	10	6	0	43	50	0.20	-0.64	0.12	5	4	0.0	0	9.4	ESE	47	N	8	15	7	8	4.6	74
CONNECTICUT																																
BRIDGEPORT	7	1017.5	1018.4	70	54	62.3	- 3.2	81	14	37	21	0	0	52	72	2.75	-1.20	1.63	9	0	0.0	0	13.4	SW	33*	ENE	27	10	7	13	5.7	
HARTFORD	169	1011.4	1017.4	72	48	60.0	- 2.3	86	14	31	21	0	2	51	76	4.63	0.98	1.76	11	2	0.0	0	7.1	S	20	N	6	8	8	14	6.3	62
NEW HAVEN	6	1017.1		71	53	61.8	- 2.1	82	11	39	22	0	0			2.95	-0.98	1.97	8	0	0.0	0	8.1		24	W	11+	10	7	13	5.8	63
DELAWARE																																
WILMINGTON	78	1014.8	1018.1	74	53	63.6	- 4.0	91	1	38	21	1	0	53	72	3.65	-0.30	1.96	9		0.0	0	9.2	WNW	24*	E	23+	11	6	13	5.8	
DIST.OF COLUMBIA																																
WASHINGTON U	72			74	55	64.5	- 5.4	90	13	44	22+	1	0			2.60	-1.76	1 1.02	7													
WASH NATL AP	14	1013.6	1018.3	76	58	67.0	- 2.7	94	1	44	21	2	0	55	67	2.64	-1.19	0.84	9	0	0.0	0	7.0	S	26	NW	11+	10	7	13	5.8	61
FLORIDA																																
APALACHICOLA U	13	1013.6		84	72	78.2	- 0.7	92	5	57	29	4	0			8.61	0.08	3.21	14	10	0.0	0	6.6		23	NE	22	4	11	15	6.8	51
DAYTONA BEACH	31	1014.7	1016.6	87	72	79.3	0.1	92	18+	61	29	3	0	70	77	8.84	1.84	3.15	12	11	0.0	0	7.6	E	21*	ENE	24	3	14	13	6.9	
FORT MYERS	13	1014.5		89	75	82.1	0.8	93	13+	71	29+	20	0		80	14.54	6.04	9.34	17	15	0.0	0	8.8		31*	WSW	16	7	15	8	5.9	
JACKSONVILLE	24	1015.4	1016.9	87	71	79.0	- 0.4	95	6+	55	29	14	0	70	79	4.37	-3.19	0.89	15	9	0.0	0	6.5	NE	35	N	21	1	16	13	7.2	51
KEY WEST	5	1014.8	1015.2	89	78	83.1	0.8	91	27+	74	21+	12	0	74	73	5.12	-1.61	1.06	21	15	0.0	0	9.6	ESE	34	S	21+	2	16	12	6.8	56
LAKELAND U	214			89	72	80.4	0.2	94	10+	63	29	16	0			6.17	-0.38	2.14	15	16	0.0	0	5.7					4	17	9	6.3	58
MIAMI BEACH	9			87	78	82.6	0.9	91	9+	70	21	4	0			7.10	-0.26	3.02	16	0	0.0	0	11.1		38	W	20	6	16	8	6.3	46
MIAMI	7	1014.0	1015.4	88	74	81.1	- 0.2	91	26	71	21	5	0	73	78	7.82	-1.65	2.07	18	18	0.0	0	6.6	ESE	40*	SSE	21	3	14	13	6.9	
ORLANDO	106	1011.5	1016.2	90	71	80.6	0.6	96	18+	63	29+	18	0	71	79	12.24	5.01	4.06	16	9	0.0	0	6.5	ESE	28*	SW	22	2	17	11	6.9	
PENSACOLA U	13			85	71	78.1	- 0.3	91	5	61	30+	2	0			3.11	-3.97	1.39	12	9	0.0	0	8.0		20	NW	26					55
TALLAHASSEE	58	1013.7	1016.4	88	69	78.3	0.2	99	4	46	29	16	0	69	79	6.72	1.21	2.96	13	15	0.0	0	8.3	ENE	21*	S	26+	2	15	13	7.1	
TAMPA	19	1014.2	1015.9	87	72	79.7	- 0.8	94	12	62	29	10	0	71	78	7.57	0.68	4.34	15	18	0.0	0	9.4	E	26*	S	22	0	20	10	6.8	59
WEST PALM BEACH	15	1014.7	1015.8	89	74	81.6	- 0.5	95	7	68	22	16	0	73	77	8.96	-0.70	3.54	15	15	0.0	0	7.6	ESE	27*	N	14	3	13	14	6.8	
GEORGIA																																
ATHENS	803	989.1	1018.0	82	61	71.5	- 2.0	96	4+	43	29	10	0	62	75	5.30	2.28	2.62	4	2	0.0	0	6.5	ENE	17*	E	20+	11	8	11	5.6	
ATLANTA	1005	975.9	1017.6	80	60	70.0	- 3.1	93	3	41	29	5	0	59	72	3.51	0.25	2.43	10	3	0.0	0	6.4	ENE	16*	NNW	27+	10	10	10	5.5	69
AUGUSTA	143	1010.0	1016.9	85	63	74.0	- 1.3	98	5	46	28	12	0	63	75	2.99	-0.01	1.77	6	7	0.0	0	5.4	SE	30*	SE	12	5	11	14	6.4	
COLUMBUS	385	1002.8		86	65	75.4	- 0.6	97	11	46	29	13	0			3.24	0.47	1.16	11	7	0.0	0	6.7		32*	ESE	13	6	12	12	5.9	
MACON	356	1003.2	1016.7	86	64	75.2	- 1.2	98	11+	46	29	13	0	63	72	1.83	-0.94	0.83	8	9	0.0	0	5.7	NE	20	NW	27	9	9	12	5.8	63
ROME	637	995.0		84	59	71.2	- 1.2	97	4+	36	29	10	0			2.17	-1.13	1.41	9	7	0.0	0						7	13	10	5.6	
SAVANNAH	48	1014.7	1017.5	85	66	75.3	- 1.4	95	5	50	29+	9	0	67	80	6.56	1.31	2.24	10	9	0.0	0	7.2	NNE	45	W	6	2	13	15	7.0	60
THOMASVILLE U	283			87	68	77.4	- 1.0	97	12	51	29	14	0			6.64	1.82	1.95	14	16	0.0	0						5	10	15	7.0	
HAWAII																																
HONOLULU	7	1019.0	1016.0	85	73	79.1	- 0.1	88	2	69	28+	0	0	66	66	9.49	0.99	3.53	26	0	0.0	0	6.5	WSW	17*	E	28	1	7	22	8.1	25
HILO	31	1014.7	1016.5	82	67	74.6	- 0.9	85	10+	63	8	0	0	67	79	0.66	-0.33	0.22	6		0.0	0	13.9	ENE	35	E	13	6	16	8	5.7	81
LIHUE	115	1011.7	1017.2	85	73	78.9	0.8	87	4+	67	9	0	0	67	70	1.14	-0.94	0.47	15	0	0.0	0	13.7	NE	29	E	4	4	21	5	5.5	85
IDAHO																																
BOISE	2838	918.4	1013.5	81	50	65.2	2.0	89	26	35	29	0	0	36	39	0.40	0.01	0.25	4	0	0.0	0	7.1	SE	29	NW	7	19	8	3	2.8	89
IDAHO FALLS 42NW R	4790			77	35	55.9	- 0.2	88	18	18	9	0	10			1.05	0.42	1.00	3													
IDAHO FALLS 46W R	4933	849.0		76	39	57.3	0.8	87	18	22	9	0	4			1.21	0.86	1.19	3	2	0.0	0	7.2	SW	35A	WSW	11					
LEWISTON	1413	962.4		79	50	64.2	0.7	92	6	37	8	3	0			0.83	-0.07	0.46	7	0	0.0	0						17	5	8	3.9	
POCATELLO	4444	863.9	1015.3	78	43	60.5	0.2	91	18	29	9	1	2	30	37	0.40	-0.21	0.17	3	2	0.0	0	9.3	SSW	27	SW	29	20	5	5	2.8	81
ILLINOIS																																
CAIRO U	314	1004.3		77	62	69.5	- 3.0	92	13	47	29	2	0			6.54	3.53	2.34	11	5	0.0	0	6.6	N$	34	SW	14	7	9	14	6.2	65
CHICAGO O HARE	658	992.9	1017.5	74	48	60.7		91	13+	33	21	2	0	50	69	1.50		1.13	6	2	0.0	0	9.3	SSW	23*	NNE	27+	11	11	8	5.1	
CHICAGO MIDWAY	610	995.1	1017.9	74	55	64.2	- 2.2	94	13	42	21	2	0	49	61	0.77	-1.96	0.21	8	2	0.0	0	9.5	S	31	SW	13	10	11	9	5.2	64
MOLINE	582	995.5	1017.8	74	50	61.7	- 3.6	92	12	32	29	1	1	52	72	2.90	-0.35	1.20	7	1	0.0	0	7.2	SSW	37	SW	3	13	11	6	4.4	72
PEORIA	652	995.6	1018.3	74	51	62.6	- 3.8	92	12	35	20	1	0	50	67	1.29	-1.76	0.65	6	3	0.0	0	9.2	N	27	W	10	16	7	7	4.2	72

See footnotes at end of table

CLIMATOLOGICAL DATA

ENGLISH UNITS

State and Station	Elevation (ground)	Pressure		Temperature											Average relative humidity	Precipitation							Wind					No. of days (sunrise to sunset)			Sky cover, tenths (sunrise to sunset)	Possible sunshine
												No. of days							No. of days		Snow, Sleet				Fastest mile							
		Station Ø	Sea level	Average maximum	Average minimum	Average	Departure from normal	Highest	Date	Lowest	Date	Max. 90° F. or above	Min. 32 F. or below	Average dew point		Total	Departure from normal	Greatest in 24 hours	.01 inch or more	With thunderstorms	Total	Maximum depth on ground	Average speed	Prevailing direction	Speed	Direction	Date	Clear, 0-3	Partly cloudy, 4-7	Cloudy, 8-10		
ILLINOIS	Ft.	Mb.	Mb.	F.	F.	F.	F.	F.		F.				F.	%	In.	In.	In.			In.	In.	M.p.h.		M.p.h.							%
ROCKFORD	728	990.6	1017.8	71	50	60.5	- 3.3	90	12	33	29	1	0	50	71	1.73	-1.78	0.87	10	4	0.0	0	9.2	SSW	30*	W	10	10	11	9	5.0	
SPRINGFIELD	588	994.0	1017.2	77	53	65.1	- 2.5	93	13	35	20	2	0	52	67	1.42	-1.51	0.66	7	0	0.0	0	8.4	S	33	W	10	15	5	10	4.4	69
INDIANA																																
EVANSVILLE	381	1002.0	1017.8	76	55	65.5	- 4.1	93	13	38	29	1	0	58	80	5.11	2.24	2.52	7	3	0.0	0	6.2	NW	34	W	3	9	5	16	6.0	67
FORT WAYNE	791	987.0	1018.2	73	50	61.7	- 3.1	90	13	33	29+	1	0	51	69	1.45	-1.22	0.45	8	3	0.0	0	9.1	W	31	W	10	10	10	10	5.4	70
INDIANAPOLIS	793	988.1	1018.1	73	53	62.6	- 3.9	88	13	39	21	0	0	54	76	4.13	0.89	2.85	10	2	0.0	0	7.0	S	24*	NNW	14	12	7	11	5.5	62
SOUTH BEND	768	989.5	1017.6	72	50	61.0	- 2.8	90	13	35	21	1	0	51	71	1.28	-1.79	1.13	4	2	0.0	0	8.9	S	23*	NNW	19+	9	11	10	5.6	
IOWA																																
BURLINGTON	694	992.6	1018.0	75	52	63.3	- 2.7	92	12	36	20	2	0	52	69	3.32	0.13	1.74	8	4	0.0	0	8.7	S	56	W	13	14	10	6	4.3	75
DES MOINES	948	986.7	1017.9	74	52	63.3	- 2.6	90	12	37	20	1	0	50	65	1.93	-0.95	0.53	8	3	0.0	0	7.1	SSE	27	NW	17	10	9	11	5.1	67
DUBUQUE	1065	992.4		69	48	58.7	- 3.0	87	12	36	29+	0	0			3.27	-0.47	1.07	8	3	0.0	0			27*	WSW	10	11	12	7	5.2	
SIOUX CITY	1095	975.9	1017.2	73	49	60.9	- 3.6	89	12	35	20	0	0	53	78	2.47	-0.27	1.07	8	5	0.0	0	7.7	SSE	29	NW	3	12	9	9	4.7	63
WATERLOO	868	985.9	1017.9	70	47	58.6	- 4.8	86	12	32	20	0	1	51	77	1.73	-2.07	0.54	7	3	0.0	0	8.1	SE	22*	ESE	8+	11	12	7	5.1	
KANSAS																																
CONCORDIA	1470	966.6	1016.3	75	54	64.7	- 5.0	92	12	42	20+	1	0	57	78	4.15	1.42	1.48	12	10	0.0	0	10.7	SSE	31	NE	18	10	9	11	5.5	56
DODGE CITY	2594	928.2	1015.6	76	56	65.9	- 4.4	96	12	41	9	2	0	57	78	4.24	2.71	1.78	14	10	0.0	0	10.9	SSE	73	NE	16	7	9	14	6.3	54
GOODLAND	3645	889.6	1015.8	77	49	62.7	- 2.8	94	11	36	9	3	0	50	71	0.79	-0.45	0.37	8	7	0.0	0	12.0	SSE	39*	NNW	30	10	10	10	5.4	
TOPEKA	877	981.3	1016.9	75	56	65.4	- 4.0	93	13	41	20+	2	0	58	80	4.50	1.52	1.22	14	9	0.0	0	10.0	E	54	E	14	7	8	15	6.6	49
WICHITA	1321	967.4	1015.6	77	60	68.6	- 2.7	97	13	45	10+	3	0	60	78	8.23	5.01	2.31	17	11	0.0	0	10.2	S	43	N	4	7	6	17	6.6	48
KENTUCKY																																
COVINGTON	869	985.9	1017.7	76	51	63.5	- 4.7	91	13	33	29	1	0	51	68	2.67	-0.16	1.12	11	2	0.0	0	6.1	SSW	20*	SW	1	8	5	17	6.3	
LEXINGTON	979	982.5	1018.2	75	55	65.0	- 4.3	90	13	41	29+	1	0	56	75	2.66	-0.14	0.82	13	3	0.0	0	6.2	SW	23*	ENE	6+	8	9	13	5.9	
LOUISVILLE	474	998.7	1017.8	75	55	65.0	- 4.0	91	13	39	29	1	0	56	75	3.56	0.93	1.00	10	4	0.0	0	6.4	SSE	22	N	17	8	5	17	6.3	46
LOUISIANA																																
ALEXANDRIA	92	1011.5	1016.0	88	66	76.8		94	13	53	29+	12	0	68	80	3.32		0.80	8	6	0.0	0	3.8	NE				8	13	9	5.5	
BATON ROUGE	64	1012.7	1015.8	89	69	79.4	2.0	94	2	56	21	15	0	69	75	4.29	0.77	2.12	9	12	0.0	0	4.9	NE				9	18	3	4.5	
BURRWOOD R	5		1015.6											73	75			1.14			0.0	0	9.4	NE								
LAKE CHARLES	14	1014.0	1015.4	88	71	79.2	0.5	92	14	58	29	12	0	71	80	1.01	-3.01	0.36	7	11	0.0	0	6.6	ENE	23	ENE	15	7	16	7	5.4	
NEW ORLEANS	3	1013.3	1015.4	88	69	78.5	0.7	93	8	58	29	15	0	71	81	2.52	-2.51	1.05	7	10	0.0	0	5.7	NE	21*	S	8	6	21	3	5.1	
NEW ORLEANS AUDUBON	10	1008.8		88	71	79.8		94	9	62	29	13	0			5.36		1.82	9	10	0.0	0										
SHREVEPORT	252	1007.2	1016.4	87	68	77.5	- 0.3	96	13	55	21	12	0	67	74	2.57	0.29	1.20	11	8	0.0	0	7.4	SSE				13	6	11	5.1	70
MAINE																																
CARIBOU		993.0	1016.4	61	42	51.6	- 2.2	78	1	28	21	0	4	46	82	3.84	0.31	1.41	14	2	0.0	0	8.7	WSW	27*	E	28	4	6	20	7.6	
PORTLAND	61	1013.1	1017.1	67	45	56.1	- 2.6	81	14	27	22	0	2	49	78	2.53	-0.99	1.32	10	0	0.0	0	8.7	W	42	E	28	7	11	12	6.2	56
MARYLAND																																
BALTIMORE	146	1013.3	1018.2	77	53	64.8	- 3.3	99	1	37	22+	4	0	53	71	2.39	-0.94	1.09	8	0	0.0	0	8.1	W	27	W	18+	10	7	13	5.8	52
BALTIMORE U	14			76	60	67.8	- 2.8	96	1	46	21	1	0			2.42	-1.21	0.95	7													
FREDERICK	294			74	51	62.4	- 4.4	96	1	34	21	2	0			2.00	-1.42	0.85	10	0	0.0	0										
MASSACHUSETTS																																
BLUE HILL OBS R	629	992.8	1016.1	69	51	59.8	- 2.6	84	14	35	21	0	0		70	4.59	0.64	2.84	12	0	0.0	0	13.4	WNW	49	NE	28					60
BOSTON	15	1012.1	1016.8	71	55	62.9	- 2.4	86	14	41	21	0	0	50	67	4.10	0.64	2.43	10	1	0.0	0	13.5	SW	47	NE	28	10	6	14	6.0	62
NANTUCKET	43	1016.7	1017.3	67	56	61.5	- 0.9	77	2	45	21	0	0	54	80	3.95	0.44	1.47	11	0	0.0	0	12.3	WSW	34	N	24	8	7	15	6.4	55
PITTSFIELD	1170			67	44	55.4	- 2.7	85	1	27	22	0	4			3.09	-1.41	1.08	13		0.0	0										
WORCESTER	986	980.7	1017.5	67	50	58.2	- 2.6	80	10+	33	21	0	0	46	66	5.42	1.50	2.64	11	2	0.0	0	7.9	W	30*	ENE	28	9	8	13	5.7	
MICHIGAN																																
ALPENA	689	991.6		67	42	54.3	- 3.2	84	13+	31	21	0	1			2.87	-0.74	0.91	11	5	0.0	0	7.0	W$	30	W	10	8	7	15	6.1	62
DETROIT	619	991.1	1017.7	70	53	61.4	- 3.2	87	13	40	20	0	0	51	70	2.99	0.55	1.34	15	8	0.0	0	9.3	N	57	NW	13	8	12	10	5.8	57
DETROIT M WAYNE CO	633	993.6	1017.7	72	49	60.5	- 3.3	90	13	35	21	1	0	50	70	3.41	1.09	1.28	12	7	0.0	0	7.7	SW				7	13	10	6.0	
DETROIT WILLOW RUN	711	989.3	1017.6	72	50	61.2	- 3.6	90	13	37	20	1	0	51	72	3.23	0.94	1.30	11	5	0.0	0	10.9	NW	46	WNW	13	6	15	9	6.0	
ESCANABA U	594	994.4		63	47	55.3	- 2.1	78	1	36	20	0	0			2.18	-0.96	0.47	12	2	0.0	0	9.5		26	N	19+	8	11	11	5.9	45
FLINT	766	990.5	1018.3	69	47	57.8	- 3.9	85	13+	32	30	0	1	49	74	2.35	-0.59	0.72	10	6	0.0	0	8.2	SSW	28*	WSW	10	5	16	9	6.1	

See footnotes at end of table

CLIMATOLOGICAL DATA

ENGLISH UNITS

State and Station	Elevation (ground)	Pressure		Temperature												Precipitation							Wind					No. of days (sunrise to sunset)				
		Station Ø	Sea level	Average maximum	Average minimum	Average	Departure from normal	Highest	Date	Lowest	Date	No. of days Max. 90°F. or above	No. of days Min. 32°F. or below	Average dew point	Average relative humidity	Total	Departure from normal	Greatest in 24 hours	No. of days .01 inch or more	No. of days With thunderstorms	Snow, Sleet Total	Snow, Sleet Maximum depth on ground	Average speed	Prevailing direction	Fastest mile Speed	Fastest mile Direction	Fastest mile Date	Clear, 0-3	Partly cloudy, 4-7	Cloudy, 8-10	Sky cover, tenths (sunrise to sunset)	Possible sunshine
MICHIGAN	Ft.	Mb.	Mb.	°F.	°F.	°F.	°F.	°F.		°F.				F.	%	In.	In.	In.			In.	In.	M.p.h.		M.p.h.							%
GRAND RAPIDS	681	992.7	1018.0	72	49	60.4	- 1.8	91	12	32	21	1	1	47	65	2.82	-0.16	2.46	6	3	0.0	0	9.4	W	42	W	10	6	12	12	6.0	53
LANSING	852	985.6	1017.6	71	47	59.1	- 2.9	86	13	30	21	0	2	48	70	2.26	-0.34	0.94	9	7	T	0	11.4	S	57	N	13	7	13	10	5.9	74
MARQUETTE U	677	989.5		62	47	54.6	- 3.1	82	12	37	20	0	0			4.66	1.38	1.34	12	3	0.0	0	7.7	W$	31	SE	16	5	12	13	6.4	57
MUSKEGON	627	994.6	1017.7	70	48	58.9	- 2.6	85	3	31	21	0	1	49	72	3.69	0.63	2.24	9	4	T	0	8.8	SSW	27*	SSW	13+	9	8	13	5.9	
SAULT STE MARIE	721	993.7	1016.5	63	45	53.7	- 1.6	78	3	34	20	0	0	47	80	3.16	-0.65	0.86	13	4	T	0	9.2	WNW	25*	WNW	18	4	11	15	6.9	47
MINNESOTA																																
DULUTH	1426	975.6	1017.5	63	41	51.9	- 2.8	77	12	23	20	0	3	42	71	3.03	0.17	1.61	9	3	0.0	0	10.3	WNW	35	W	16	9	10	11	6.0	56
INTERNATIONAL FALLS	1179	975.6	1017.1	64	40	51.9	- 1.0	81	2	26	20	0	4	43	75	3.57	0.67	2.45	8	1	0.0	0	6.6	NW	23*	WNW	16+	9	7	14	5.9	
MINNEAPOLIS	1822	984.3	1017.4	68	45	56.4	- 4.1	82	2	28	20	0	1	49	76	2.46	0.03	0.49	11	4	0.0	0	8.2	S	28	NW	3	9	12	9	5.4	55
ROCHESTER	1297	970.0	1018.1	67	46	56.6	- 4.1	83	12	31	20	0	1	49	77	1.88	-1.22	0.62	10	5	0.0	0	10.6	S				9	9	12	5.7	
ST CLOUD	1034	979.4	1017.6	68	45	56.1	- 2.7	82	2	30	20	0	1		74	3.71	1.30	1.02	8	4	0.0	0						14	8	8	4.7	
MISSISSIPPI																																
JACKSON	305	1004.0	1016.1	89	66	77.2	1.0	97	13	46	29	14	0	64	69	2.34	-0.14	1.62	8	8	0.0	0	6.3	SE	32	SW	14	11	15	4	4.6	78
MERIDIAN	292	1005.4	1016.6	90	64	76.6	0.7	99	4+	44	29	16	0	64	72	1.66	-1.67	0.71	7	6	0.0	0	5.4	N	17*	N	11+	9	15	6	4.8	
VICKSBURG U	234	1006.9		86	68	76.9	0.3	94	12+	53	29	10	0			0.38	-2.12	0.23	3	5	0.0	0	7.2		21	W	8	13	12	5	4.6	82
MISSOURI																																
COLUMBIA	778	988.0	1016.7	75	56	65.5	- 3.8	93	13	40	20	2	0	56	74	6.73	2.85	2.50	8	8	0.0	0	8.2	SE	26	NW	4	9	7	14	6.2	49
KANSAS CITY	742	982.1	1016.7	76	58	66.8	- 4.0	94	13	42	20	2	0	57	73	7.32	4.07	2.25	12	6	0.0	0	6.0	NNE	46	SE	14	8	8	14	6.4	45
ST JOSEPH	809	982.5		75	55	64.8	- 3.8	91	12	39	20	2	0			5.20	1.76	1.52	11	9	0.0	0	7.8	N	27*	NNW	4	10	8	12	5.8	
ST LOUIS	535	997.0	1017.7	76	57	66.4	- 3.6	94	13	40	29	2	0	55	70	2.63	-0.13	0.92	9	1	0.0	0	4.9	S	25	WNW	10	7	10	13	6.1	51
ST LOUIS RFC	465			76	60	67.9	- 3.8	93	13	47	20	1	0			3.19	0.20	1.62	7		0.0	0										
SPRINGFIELD	1265	970.0	1017.2	76	57	66.5	- 3.9	91	14	42	20	3	0	60	84	9.15	5.30	4.74	13	9	0.0	0	8.5	SSE	36	S	14	8	5	17	7.0	52
MONTANA																																
BILLINGS	3567	892.0	1015.5	72	46	59.0	- 1.4	91	6	31	9+	1	3	38	52	0.95	-0.24	0.78	6	0	6.3	3	9.6	SW	37	W	29	16	9	5	3.8	74
GLASGOW	2277	940.1		71	43	56.9	0.2	84	27	27	9	0	2	36	50	0.48	-0.48	0.41	5	0	T	T						13	8	9	4.5	
GREAT FALLS	3662	889.3	1016.5	71	43	56.7	- 1.2	84	26	32	8+	0	2	34	47	0.10	-1.10	0.06	2	0	0.4	T	10.8	SW	41	SW	11	12	8	10	4.9	71
HAVRE	2582	926.5		72	39	55.6	- 0.5	89	6	26	9	0	3			0.74	-0.27	0.47	3	0	T	0	7.7	E$	42	W	11	11	8	11	4.9	74
HELENA	3893	874.7	1017.2	70	40	55.0	- 1.0	85	6	26	9	0	4	36	55	0.31	-0.64	0.13	4	1	0.4	T	7.4	WNW	38	W	28	11	9	10	4.8	70
KALISPELL	2965	912.3		71	37	53.9	- 0.3	86	6	25	8	0	8			0.42	-0.62	0.19	6	0	T	0	6.8					15	3	12	4.7	
MISSOULA	3190	903.2	1017.3	71	38	54.8	- 0.6	86	6	28	9	0	6	38	61	0.90	-0.12	0.25	9	2	T	T	6.1	WNW	37	N	7	14	6	10	4.5	75
NEBRASKA																																
GRAND ISLAND	1841	950.9		72	48	60.3	- 6.4	89	12	34	10+	0	0	51	76	1.59	-0.56	0.65	6	6	0.0	0	9.4	S				10	5	15	5.8	
LINCOLN U	1150			74	54	63.7	- 4.5	90	12	38	20	1	0			3.54	0.67	1.37	9	5	0.0	0	9.3	S$	32	S	29	8	11	11	5.8	64
NORFOLK	1544	961.3		72	47	59.9	- 5.1	91	12	32	20	1	1			1.54	-0.71	0.67	8	7	0.0	0						11	7	12	5.4	
NORTH PLATTE	2779	917.1	1015.8	73	47	60.2	- 3.5	91	11	31	10	1	1	48	68	2.38	0.71	0.79	8	5	0.0	0	10.4	S	32	NW	30	7	10	13	6.1	56
OMAHA	978	977.4	1017.2	74	53	63.2	- 3.7	90	12	38	20	1	0	53	73	3.79	1.16	1.30	10	7	0.0	0	9.6	SSE	35	N	3	11	9	10	5.5	66
OMAHA N OMAHA AP	1323	969.2		71	52	61.6	- 3.5	89	12	38	20	0	0			4.08	1.56	1.27	9	6	0.0	0						7	13	10	5.6	
SCOTTSBLUFF	3950	880.2	1015.3	77	46	61.4	- 0.9	92	11	26	9	1	2	43	58	0.05	-1.16	0.04	2	1	T	T	10.9	SE	45*	NNW	30	12	9	9	4.5	
VALENTINE	2587	927.0		75	46	60.3	- 1.5	97	11	32	10	2	1			0.71	-0.54	0.38	8	6	0.0	0	11.0	S$	42	NE	15	14	8	8	4.6	68
NEVADA																																
ELKO	5075	845.2	1014.6	81	37	59.2	1.3	90	18	27	9	1	4	22	28	0.09	-0.25	0.08	3	1	0.0	0	6.4	E	28*	SSW	26	22	6	2	2.3	
ELY	6257	810.7	1013.5	80	38	58.9	1.4	87	3	26	30+	0	4	24	30	0.10	-0.46	0.07	3	4	0.0	0	8.8	S	34	S	20	22	6	2	2.5	93
LAS VEGAS	2162	945.1	1010.1	97	66	81.4	0.9	105	18	58	29	25	0	33	21	0.03	-0.31	0.03	1	3	0.0	0	9.6	SW	32*	ESE	23	25	4	1	1.4	93
RENO	4404	862.5	1014.9	84	37	60.8	0.5	93	6+	30	30+	5	5	35	44	0.10	-0.13	0.10	1	2	0.0	0	5.1	S	35	SW	18	25	2	3	1.8	92
WINNEMUCCA	4299	867.6		83	39	61.1	2.5	91	17	28	30	5	7	24	26	0.02	-0.32	0.02	2	0	0.0	0	8.1	W	30	SW	10	21	4	5	2.8	95
NEW HAMPSHIRE																																
CONCORD	339	1006.3	1017.1	70	46	57.7	- 1.6	85	10	28	22+	0	3	48	74	1.76	-1.99	0.69	11	0	0.0	0	4.4	NW	25	E	28	7	8	15	6.4	50
MT WASHINGTON OBS	6262	807.2		42	32	36.8	- 4.2	63	1	16	21	0	17		92	9.42	2.42	1.79	19	2	1.0	1	27.6	W	101Y	SE	28	2	6	22	8.4	25
NEW JERSEY																																
ATLANTIC CITY	58	1015.4	1018.2	74	55	64.6	- 2.6	87	14	37	21	0	0	54	71	3.09	-0.22	1.94	8	0	0.0	0	8.9	SSW	23*	NE	23	10	7	13	5.6	63
ATLANTIC CITY U	10			71	60	65.5	- 2.9	80	15+	42	21	0	0			2.96	-0.44	1.97	9				12.8		28*	NE	23+					
NEWARK	11	1016.6	1018.0	73	56	64.7	- 2.6	87	14	43	21	0	0	51	66	3.33	-0.43	1.36	9	0	0.0	0	8.8	SW	28*	ENE	27	10	9	11	5.5	

See footnotes at end of table

CLIMATOLOGICAL DATA

ENGLISH UNITS

State and Station	Elevation (ground)	Pressure		Temperature											Average relative humidity	Precipitation							Wind					No. of days (sunrise to sunset)			Sky cover, tenths (sunrise to sunset)	Possible sunshine
												No. of days							No. of days		Snow, Sleet				Fastest mile							
		Station Ø	Sea level	Average maximum	Average minimum	Average	Departure from normal	Highest	Date	Lowest	Date	Max. 90°F. or above	Min. 32°F. or below	Average dew point		Total	Departure from normal	Greatest in 24 hours	.01 inch or more	With thunderstorms	Total	Maximum depth on ground	Average speed	Prevailing direction	Speed	Direction	Date	Clear, 0-3	Partly cloudy, 4-7	Cloudy, 8-10		
NEW JERSEY	Ft.	Mb.	Mb.	F.	F.	F.	°F.	F.		F.				F.	%	In.	In.	In.			In.	In.	M.p.h.		M.p.h.							%
TRENTON U	56	1010.3		72	55	63.5	- 3.6	91	1	40	21	1	0			5.04	1.54	2.38	7	0	0.0	0	8.0	S$	34	W	18	10	10	10	5.8	62
NEW MEXICO																																
ALBUQUERQUE	5310	850.0	1013.6	82	57	69.4	- 1.1	92	19+	47	10	5	0	48	53	0.71	-0.24	0.34	7	3	0.0	0	7.7	S	49	W	1	13	8	9	4.8	72
CLAYTON	4969	847.3		79	52	65.7	- 0.3	93	3	38	10	3	0			0.61	-1.04	0.37	7	7	0.0	0						11	10	9	5.2	
RATON	6379	808.7		77	46	61.7	- 0.2	88	3	31	10	0	1			2.02	0.34	1.55	9	8	0.0	0						6	10	14	6.0	
ROSWELL	3619	893.7		83	57	69.9	0.7	93	8	48	21	7	0	56	69	3.51	1.69	1.95	9	7	0.0	0	8.4		28	NW	24	14	5	11	5.1	
SILVER CITY	5373	837.5		83	57	69.8		92	17+	49	29+	3	0			2.91		1.30	10	13	0.0	0						12	10	8	5.0	
NEW YORK																																
ALBANY	277	1013.5	1017.3	70	48	58.7	- 2.9	88	1	30	21	0	2	49	72	3.45	-0.13	0.92	11	1	0.0	0	7.7	S	38	E	28	7	6	17	6.4	62
BINGHAMTON	1590	958.1	1017.1	65	49	56.9	- 3.1	83	13+	36	7	0	0	50	80	3.45	0.50	1.51	11	2	T	0	8.8	SSW	27	W	18	7	4	19	7.0	40
BUFFALO	705	988.4	1017.4	69	49	58.6	- 2.8	85	13	34	21	0	0	47	67	3.14	0.01	1.93	14	4	0.0	0	9.6	WSW	32	SW	13	7	6	17	6.7	54
NEW YORK U	132	1005.8		73	57	64.9	- 3.6	88	14	42	21	0	0	52	69	3.10	-0.77	1.44	8	0	0.0	0	8.3	SW$	35	NE	27	14	9	7	4.6	60
NEW YORK LA GUARDIA	19	1015.7	1017.7	71	58	64.7	- 4.1	86	14	45	21	0	0	52	67	3.02	-0.90	1.52	8	0	0.0	0	10.9	S	32	ENE	27	9	11	10	5.6	
ROCHESTER	543	997.8	1017.2	69	49	58.9	- 3.5	90	13	39	20	1	0	50	75	4.01	1.48	2.11	13	4	0.0	0	10.2	WSW	43	NE	28	8	6	16	6.5	50
SCHENECTADY	217			69	49	59.0	- 2.9	86	1	34	21	0	0			2.45	-1.10	0.57	10	2	0.0	0						11	14	5	4.4	
SYRACUSE	417	994.7	1016.6	69	51	59.7	- 2.7	88	13	39	21	0	0	49	71	1.99	-0.85	0.83	9	2	0.0	0	12.4	W	52	W	18	8	6	16	6.7	46
NORTH CAROLINA																																
ASHEVILLE U	2203	939.6		76	55	65.4	- 2.4	89	14	38	29	0	0			2.40	-0.38	1.02	9	3	0.0	0	6.5	S	26	N	27	10	12	8	5.5	59
CAPE HATTERAS R	7	1016.3	1017.1	80	66	72.6	- 1.5	87	3+	51	30	0	0	64	75	8.75	2.86	4.77	8	6	0.0	0	10.3	NE	33	ENE	23	7	9	14	6.5	61
CHARLOTTE	735	989.9	1017.8	82	61	71.2	- 1.2	94	13+	44	28	10	0	59	71	5.06	1.57	2.79	7	2	0.0	0	6.6	NE	20	NE	20+	9	10	11	5.6	67
GREENSBORO	891	986.5	1018.4	78	57	67.8	- 2.3	94	13+	40	29	6	0	57	73	5.66	2.00	3.65	9	1	0.0	0	6.9	NE	20	NW	27	8	6	16	6.3	54
RALEIGH	433	1003.9	1017.7	79	57	68.2	- 3.0	93	14+	41	21	4	0	59	78	3.72	-0.13	1.56	7	2	0.0	0	7.1	NNE	20*	N	20+	8	5	17	6.4	53
WILMINGTON	30	1014.8	1017.7	82	62	72.0	- 3.2	91	11+	46	21	5	0	64	80	5.48	-0.81	2.11	9	3	0.0	0	8.6	N	26	NE	20	9	8	13	6.0	74
WINSTON SALEM	967	983.0	1018.4	78	58	67.9	- 3.5	93	13+	44	21	6	0	55	68	5.65	2.10	3.32	8	0	0.0	0	7.6	ENE	25*	ENE	23	8	9	13	5.8	
NORTH DAKOTA																																
BISMARCK	1647	955.7	1016.2	73	42	57.6	- 1.1	96	7	32	22+	2	2	40	58	0.79	-0.40	0.37	8	1	0.0	0	6.8	S	42	W	29	10	13	7	5.0	73
DEVILS LAKE U	1471	962.8		66	42	54.0	- 2.4	87	2	30	19	0	2			0.66	-1.04	0.40	4	2	0.0	0	8.1	SE$	32	NE	8	11	14	5	4.6	71
FARGO	900	982.0	1016.5	69	46	57.6	- 1.2	89	2	31	20	0	1	48	73	2.42	0.94	0.81	10	3	0.0	0	9.2	SSE	34	NW	16	8	14	8	5.5	67
WILLISTON	1899	947.8		72	41	56.6	- 1.1	87	6	31	17	0	1			0.43	-0.69	0.17	4		0.0	0	9.9	SW$	50	NW	29	12	6	12	5.1	73
OHIO																																
AKRON	1209	979.7	1017.4	71	51	60.9	- 2.5	88	13	39	20	0	0	50	71	3.82	1.20	0.87	13	5	0.0	0	8.5	W	40	N	13	7	8	15	6.3	
CINCINNATI OBS	761			76	54	64.7	- 4.3	92	13	38	21	1	0			2.20	-0.51	1.02	11	2	0.0	0	4.7		19	NE	14					71
CINCINNATI U	553	994.7		77	56	66.3	- 3.8	94	13	41	29	1	0			2.12	-0.76		11	2	0.0	0										
CLEVELAND	777	989.8	1017.5	72	52	62.0	- 0.4	91	13	38	30	1	0	52	73	4.39	1.49	1.69	13	4	0.0	0	8.8	S	32	NW	13	8	9	13	6.4	54
COLUMBUS	812	988.2	1018.1	73	50	61.5	- 4.9	88	13	31	21	0	1	53	76	3.62	0.97	0.96	11	2	0.0	0	6.2	S	28	SW	14	9	7	14	6.0	60
COLUMBUS U	724			73	55	63.8	- 4.1	89	13	39	21	0	0			4.00	1.68	1.13	11	1	0.0	0										
DAYTON	997	985.4	1018.0	73	52	62.4	- 4.4	91	13	35	21	1	0	52	71	0.96	-1.63	0.29	9	1	0.0	0	8.5	NNW	34	NW	14	10	6	14	5.8	65
MANSFIELD	1296			70	50	60.1	- 3.2	85	13	34	21	0	0			3.79	0.81	1.09	12	4	0.0	0						9	10	11	5.9	
SANDUSKY U	606	995.8		72	55	63.4	- 3.1	92	13	39	21	1	0			4.00	1.23	1.43	10	3	0.0	0	6.5		44	N	13	11	10	9	5.5	59
TOLEDO	676	992.3	1017.6	72	50	61.2	- 2.2	91	13	30	21	1	1	51	72	3.39	1.26	1.60	10	3	0.0	0	7.6	NNW	30	N	13	10	11	9	5.4	61
YOUNGSTOWN	1178	975.1	1017.7	69	48	58.6	- 4.4	87	13	36	21	0	0	50	75	3.00	0.11	0.88	16	2	0.0	0	8.7	SSW	23*	NNE	28	4	12	14	6.8	
OKLAHOMA																																
OKLAHOMA CITY	1280	972.9	1014.6	81	62	71.4	- 1.9	96	14	47	10	5	0	63	79	3.08	0.06	0.88	10	6	0.0	0	11.1	SSE	35	E	15	7	8	15	6.7	50
TULSA	676	991.8	1016.2	80	61	70.7	- 3.6	95	14+	47	28	4	0	63	80	10.50	6.49	3.27	10	5	0.0	0	7.4	SSE	35	N	15	11	2	17	6.2	49
OREGON																																
ASTORIA	8	1014.6	1015.2	67	50	58.6	0.6	86	17	42	16	0	0	53	83	3.50	0.37	1.49	9	0	0.0	0	8.7	W	31*	SW	28	6	8	16	6.7	
BURNS U	4151	873.3		78	43	60.5	1.7	90	6	27	29	1	3	30	37	0.33	-0.17	0.29	2	2	0.0	0						19	6	5	3.2	
EUGENE	361	1001.4		77	49	62.7	1.2	90	17+	39	9	2	0			1.93	0.66	1.26	3	0	0.0	0	6.6		26*	S	28	11	11	8	5.0	
MEACHAM	405[illegible]			69	45	57.1	1.4	84	18	30	8	0	1			1.61	0.15	0.94	5	0	0.0	0						18	6	6	3.3	
MEDFORD	1298	966.6	1014.1	84	46	65.4	0.7	100	17	39	30	10	0	45	57	0.76	0.16	0.69	3	0	0.0	0	4.6	WNW	20*	WNW	18+	18	6	6	3.2	
PENDLETON	1482	961.4	1014.6	79	51	65.0	0.8	93	6	38	8	3	0	38	41	0.79	0.16	0.45	5	0	0.0	0	8.6	SSE	30*	NNE	7	20	4	6	3.3	
PORTLAND	21	[illegible]	1014.6	75	52	63.4	1.1	93	17	42	9	2	0	50	68	1.56	0.03	0.81	6	0	0.0	0	6.8	NW	28	S	10	10	7	13	5.5	53
PORTLAND U	3[illegible]			74	56	65.0	0.5	91	4	51	23+	1	0			1.66	-0.08	0.95	5		0.0	0										

See footnotes at end of table

CLIMATOLOGICAL DATA

ENGLISH UNITS

State and Station	Elevation (ground)	Pressure		Temperature											Average relative humidity	Precipitation							Wind					No of days (sunrise to sunset)			Sky cover, tenths (sunrise to sunset)	Possible sunshine
												No of days							No of days		Snow, Sleet				Fastest mile							
		Station	Sea level	Average maximum	Average minimum	Average	Departure from normal	Highest	Date	Lowest	Date	Max. 90 F. or above	Min. 32 F or below	Average dew point		Total	Departure from normal	Greatest in 24 hours	01 inch or more	With thunderstorms	Total	Maximum depth on ground	Average speed	Prevailing direction	Speed	Direction	Date	Clear, 0-3	Partly cloudy, 4-7	Cloudy, 8-10		
OREGON	Ft.	Mb	Mb.	F	F.	F.	F	F		F				F.	%	In	In	In			In	In	M.p.h		M.p.h.							%
ROSEBURG	505	995.9		81	49	64.6	1.8	99	17	42	12+	6	0			0.51	-0.49	0.33	4	0	0.0	0	4.7	N$	20	S	28	12	11	7	4.5	73
SALEM	195	1007.5	1015.0	77	48	62.5	0.0	95	17	41	23+	3	0	49	68	1.53	0.15	1.05	6	0	0.0	0	7.1	S	25*	S	28	11	6	13	5.2	
SEXTON SUMMIT R	3836	883.8		71	51	61.2	2.0	88	17	40	29+	0	0			1.68	0.43	1.01	6	0	0.0	0	10.0	N				20	4	6	2.8	
PACIFIC AREA																																
CANTON ISLAND	8	1009.3	1009.7	88	78	83.0	-0.6	91	3	72	11	1	0	72	73	2.51	1.27	1.71	10	1	0.0	0	14.4	E	28*	E	16	11	12	7	4.9	
ENIWETOK	16	1008.8		88	77	82.6	-0.7	90	22+	73	27+	6	0			11.24	5.00	3.77	23	1	0.0	0	9.0									
TAGUAC GUAM R	361			86	73	79.2	-0.1	89	15	70	16+	0	0			21.86	8.50	4.81	26	7	0.0	0	4.3	E	23	SW	30					53
KOROR R	94	1006.2	1008.7	87	75	81.0	0.0	90	1	73	27+	1	0	76	87	20.79	6.46	2.89	28	4	0.0	0	6.5	W	26	NW	26	0	0	30	9.8	48
MAJURO	10	1009.6	1010.2	85	77	81.0	0.6	88	21	73	27+	0	0	74	79	21.03	8.97	4.98	27	3	0.0	0	8.6	NE	32	E	18	0	5	25	9.0	50
PONAPE R	123	1004.4	1008.9	87	73	79.7	0.2	91	18	70	21	2	0	75	89	22.91	7.10	5.71	28	3	0.0	0	2.7	ESE	17	E	23	0	2	28	9.4	42
TRUK MOEN ISLAND	5	1009.3	1009.5	87	75	80.8	0.3	89	21+	73	30+	0	0	75	85	14.64	2.06	4.55	22	0	0.0	0	4.4	SE	37	NW	30	0	3	27	9.3	12
WAKE ISLAND	11	1012.0	1012.5	88	77	82.1	-0.4	90	8+	70	17	2	0	75	79	6.30	1.06	1.53	19	1	0.0	0	12.3	E	28*	ESE	21	4	9	17	7.3	
YAP R	55	1006.9	1007.9	87	76	81.0	-0.8	91	11	73	12	3	0	76	86	12.23	-1.93	2.27	27	2	0.0	0	7.1	SW	31	W	30	0	0	30	9.9	40
PENNSYLVANIA																																
ALLENTOWN	376	1004.0	1018.3	70	51	60.4	-4.3	88	1	36	21	0	0	53	78	4.28	0.53	1.30	11	2	0.0	0	7.8	SW	30*	W	18+	11	7	12	5.7	
ERIE	732	991.0	1017.2	68	53	60.6	-2.7	88	13	41	7	0	0	51	71	4.94	1.38	2.11	14	5	0.0	0	10.5	S	29*	NE	28+	8	6	16	6.5	
HARRISBURG	335	1003.9	1017.9	73	53	62.8	-3.6	88	13+	37	21	0	0	54	77	3.59	0.77	1.24	11	1	0.0	0	6.3	WNW	28	SW	10	9	6	15	6.2	53
PHILADELPHIA	5	1013.2	1017.8	73	53	63.1	-3.6	89	1	39	22	0	0	53	72	2.77	-0.69	1.28	8	0	0.0	0	7.7	ENE	23	E	27+	9	7	14	5.8	56
PHILADELPHIA U	35			74	58	65.7	-3.6	92	1	43	21	1	0																			
PITTSBURGH	1168	987.9	1018.7	69	48	58.6	-5.6	85	1	33	23	0	0	51	76	4.69	2.15	1.60	12	6	0.0	0	6.9	WSW	21*	W	11	6	7	17	6.7	54
PITTSBURGH U	749			71	54	62.7	-4.6	87	13	42	21	0	0			6.29	3.62	3.13	11		0.0	0										43
READING U	266	1005.7	1017.6	72	55	63.7	-3.8	92	1	39	21	1	0			4.39	1.07	1.69	12	1	0.0	0	8.2	W$	31	W	18	12	4	14	5.7	53
SCRANTON	940	983.9	1018.1	69	50	59.5	-2.0	87	1	33	21	0	0	50	72	3.14	0.17	1.77	11	2	0.0	0	7.6	SW	21	SW	18	9	4	17	6.5	46
WILLIAMSPORT	527	998.9	1018.1	69	49	59.3	-4.8	84	13+	36	22	0	0	51	77	3.25	-0.02	1.75	12	1	0.0	0	6.8	W	22*	ESE	28	6	9	15	6.9	
RHODE ISLAND																																
BLOCK ISLAND	110	1012.6	1017.0	68	57	62.3	-1.7	77	11+	45	21	0	0			4.24	1.04	2.50	9	0	0.0	0						7	13	10	5.8	
PROVIDENCE	55	1011.2	1017.3	70	51	60.8	-2.4	84	14	34	22	0	0	51	73	3.67	0.15	2.29	10	0	0.0	0	10.1	WSW	28*	NNE	28	9	10	11	5.7	59
SOUTH CAROLINA																																
CHARLESTON	41	1014.8	1016.9	84	64	73.9	-1.7	92	12	50	28	3	0	65	78	3.81	-2.02	1.23	9	6	0.0	0	7.2	NNE	46Y	W	17	5	11	14	6.5	55
CHARLESTON U	9			82	69	75.2	-1.9	89	12+	56	28	0	0			3.39	-2.93	1.44	10	0	0.0	0	9.5		31	NE	21					
COLUMBIA	217	1004.5	1017.1	85	62	73.9	-1.4	97	4+	45	29	13	0	62	72	2.85	-1.46	1.95	6	4	0.0	0	7.0	NE	21*	ENE	21	8	14	8	5.6	58
FLORENCE	146	1011.4	1017.2	84	62	72.8	-2.1	96	11	45	21	11	0	62	74	3.55	-0.55	2.50	10	7	0.0	0	7.5	NE	23*	NE	20	9	9	12	5.8	
GREENVILLE	1009	980.5	1017.5	83	61	71.9	-1.9	97	3	46	28	10	0	60	70	2.28	-1.58	1.23	8	1	0.0	0	6.0	ENE	18	N	27	11	6	13	5.6	59
SPARTANBURG	801	988.1		80	60	70.0	-2.6	93	11+	46	29	8	0			4.63	0.73	2.41	8	3	0.0	0	7.0		23*	NNW	27+	9	8	13	5.8	
SOUTH DAKOTA																																
HURON	1282	969.2	1016.5	72	44	57.7	-4.7	86	11	29	20	0	3	49	77	2.05	0.52	1.13	5	5	0.0	0	9.6	SSE	60	W	2	15	9	6	4.0	71
RAPID CITY	3165	902.4	1015.9	75	46	60.3	-1.3	93	11	28	10	2	2	39	52	0.67	-0.28	0.47	6	2	T	0	11.1	NNW	40	N	8	15	6	9	4.4	62
SIOUX FALLS	1420	965.4	1017.0	71	47	59.4	-2.4	85	7	32	20	0	1	49	72	3.58	0.97	1.39	6	5	0.0	0	9.4	SSE	29*	WNW	2	14	10	6	4.1	
TENNESSEE																																
BRISTOL	1507	963.8	1018.0	78	57	67.3	-1.3	92	13	41	21	3	0	56	72	6.19	3.57	2.95	7	4	0.0	0	4.5	WNW	20*	WNW	17+	6	11	13	6.2	
CHATTANOOGA	670	801.2	1017.6	83	62	72.2	-0.1	97	3	41	29	7	0	60	71	3.48	0.38	1.85	8	3	0.0	0	6.3	S	24	W	27	9	10	11	5.9	62
KNOXVILLE	950	982.9	1018.1	81	61	70.9	-1.3	96	3	43	29	6	0	58	67	5.13	2.59	2.46	9	4	0.0	0	6.3	NE	34	W	4	5	8	17	6.7	54
MEMPHIS	263	1002.3	1016.9	82	65	73.4	-1.0	94	13	46	29	4	0	64	75	5.28	2.46	1.61	10	5	0.0	0	8.0	E	20	NE	20+	7	12	11	6.2	59
MEMPHIS U	271			80	66	72.8	-2.2	92	13+	50	21	3	0			5.17	2.36	1.06	10		0.0	0										
NASHVILLE	577	997.3	1017.3	80	59	69.3	-3.5	95	3	42	29	4	0	61	78	8.03	5.16	5.09	10	5	0.0	0	5.6	S	30	W	9	7	7	16	6.3	52
OAK RIDGE	905	985.6		78	58	68.3	-2.7	92	3	40	29	2	0			6.42	3.12	3.43	9	4	0.0	0	3.6		29Y			9	9	12	5.9	
TEXAS																																
ABILENE	1759	954.1	1014.4	86	65	75.2	-0.7	94	14+	53	27	11	0	63	72	5.12	3.05	1.57	9	4	0.0	0	7.2	SSE	33	NE	17	11	9	10	5.5	70
AMARILLO	3607	890.2	1014.0	82	59	70.4	0.1	96	14	45	10	6	0	57	70	2.66	0.77	1.39	7	4	0.0	0	12.0	SSW	32	SW	1	11	10	9	5.2	62
AUSTIN	597	992.9	1014.6	90	70	79.7	0.6	97	3+	60	28	17	0	68	71	4.75	1.31	1.06	9	9	0.0	0	6.6	S	33	NE	16	9	13	8	5.4	59
BROWNSVILLE	16	1010.7	1013.3	92	75	83.3	2.1	95	26+	65	28	25	0	73	75	1.98	-3.01	1.15	13	2	0.0	0	10.5	ESE	26	SE	7	8	18	4	5.4	67
CORPUS CHRISTI	43	1012.9	1014.0	91	74	82.8	2.0	96	1	65	27	24	0	73	75	5.37	0.97	1.72	14	6	0.0	0	10.2	SE	36	NE	17	10	13	7	5.5	61
DALLAS	481	997.2	1015.5	86	68	77.3	-0.6	95	14+	56	27	8	0	66	70	6.27	3.45	2.78	9	6	0.0	0	10.6	SSE	26	NE	30	8	12	10	5.6	65

See footnotes at end of table

CLIMATOLOGICAL DATA

ENGLISH UNITS

SEPTEMBER 1962

State and Station	Elevation (ground)	Pressure		Temperature												Precipitation							Wind					No. of days (sunrise to sunset)			Sky cover, tenths (sunrise to sunset)	Possible sunshine
												No. of days							No. of days		Snow, Sleet				Fastest mile							
		Station Ø	Sea level	Average maximum	Average minimum	Average	Departure from normal	Highest	Date	Lowest	Date	Max. 90° F. or above	Min. 32° F. or below	Average dew point	Average relative humidity	Total	Departure from normal	Greatest in 24 hours	.01 inch or more	With thunderstorms	Total	Maximum depth on ground	Average speed	Prevailing direction	Speed	Direction	Date	Clear, 0-3	Partly cloudy, 4-7	Cloudy, 8-10		
TEXAS	Ft.	Mb.	Mb.	F.	F.	F.	F.	F.		F.				F.	%	In.	In.	In.			In.	In.	M.p.h.		M.p.h.							%
DEL RIO U	957			93	73	82.6	2.8	103	8	58	28	26	0			2.10	-0.41	1.45	4	4	0.0	0										
EL PASO	3918	886.6	1012.2	84	64	73.9	- 1.1	93	17	53	30	6	0	56	58	3.54	2.40	1.70	9	5	0.0	0	6.4	N	45	NW	7	13	7	10	4.9	67
FORT WORTH	544	994.9	1015.4	87	68	77.1	- 1.3	97	4	56	27	8	0	66	72	3.79	1.25	1.49	8	5	0.0	0	9.8	ESE	39	N	30	9	12	9	5.5	
GALVESTON U	7			86	77	81.7	1.6	94	16	68	28+	3	0			1.59	-3.50	0.47	6		0.0	0	10.2		27	SE	8+					84
GALVESTON	5	1012.9	1015.1	88	77	82.4	2.2	93	16	69	28+	15	0	68	64	4.27	-1.49	1.72	8	8	0.0	0	9.4	SE				11	11	8	4.8	
HOUSTON U	41			90	75	82.4	2.6	97	16	65	28+	22	0			2.93	-0.88	0.89	9		0.0	0										
HOUSTON	50	1011.9	1014.6	90	72	81.3	1.6	96	16	61	28	21	0	73	82	3.97	-0.29	1.12	9	10	0.0	0	7.6	SSE				9	10	11	5.7	70
LAREDO	500	997.7	1012.9	96	74	85.1	2.4	102	17+	61	28	27	0	68	63	3.60	0.74	1.92	9	5	0.0	0	11.3	SE	31*	ESE	5	13	11	6	4.5	
LUBBOCK	3243	904.3	1014.5	81	60	70.8	- 0.6	94	13	47	10	4	0	61	76	4.17	1.81	1.25	12	6	0.0	0	11.0	SE	37*	W	15	11	9	10	5.2	
MIDLAND	2854	915.7	1013.0	86	63	74.5	- 0.9	97	15+	52	10	12	0	60	66	4.06	2.27	2.16	7	3	0.0	0	9.3	SSE	24*	NNE	4	11	12	7	4.5	
PORT ARTHUR	16	1013.3	1014.8	90	71	80.4	2.7	95	16	59	28+	19	0	72	81	5.23	0.35	1.83	10	9	0.0	0	6.7	NE	43	SW	8	6	17	7	5.6	63
SAN ANGELO	1903	947.3	1013.2	91	67	78.9	0.6	101	8	54	28	19	0	62	62	1.85	-0.81	0.74	6	3	0.0	0	7.6	SSE	23*	NNE	17+	14	9	7	4.4	
SAN ANTONIO	792	989.5	1012.6	91	71	80.9	2.3	97	16+	58	28	23	0	67	68	2.69	-0.80	1.25	8	7	0.0	0	8.2	SSE	26	E	6	8	14	8	5.1	64
VICTORIA	104	1009.6		90	72	81.3	2.2	96	1	62	28	21	0			5.82	1.59	3.60	10	9	0.0	0	8.6		30*		17+	8	15	7	5.3	
WACO	500	994.0	1014.8	91	70	80.4	1.4	98	4	57	28+	22	0	66	65	3.92	1.15	2.13	6	5	0.0	0	10.6	SSE	44	S	6	13	7	10	5.0	
WICHITA FALLS	994	978.3	1014.8	84	64	73.8	- 3.1	98	20	50	10	7	0	65	79	5.26	2.93	2.02	10	5	0.0	0	9.1	S	29*	SSE	17	10	8	12	5.8	
UTAH																																
MILFORD	5028	844.9		85	43	64.1	1.0	95	18	29	9	8	1			1.21	0.78	1.11	5	5	0.0	0						23	5	2	2.2	
SALT LAKE CITY	4220	867.9	1013.9	83	49	65.8	0.9	92	19	34	9	3	0	35	36	0.27	-0.26	0.17	4	5	0.0	0	9.7	SSE	32	S	20	26	4		1.9	91
WENDOVER	4237	870.3		81	54	67.9	1.2	90	20+	42	9	2	0			0.06	-0.26	0.06	1	2	0.0	0						24	6		1.7	
VERMONT																																
BURLINGTON	331	1001.8	1016.5	66	45	55.7	- 4.2	84	1	30	21	0	2	47	73	3.56	0.25	1.19	12	3	0.0	0	6.9	S	22	SW	1	6	8	16	7.0	48
VIRGINIA																																
LYNCHBURG	947	993.6		75	55	64.9	- 3.8	91	2+	41	22+	3	0			2.45	-0.91	1.36	8	0	0.0	0	7.1		25	NE	23	10	8	12	6.0	57
NORFOLK	26	1016.8	1017.9	77	61	69.1	- 3.5	93	2	49	30+	4	0	60	74	3.08	-1.14	1.99	6	2	0.0	0	10.0	SW	35	NE	23	10	6	14	6.0	58
RICHMOND	162	1011.9	1018.1	78	55	66.2	- 4.0	93	2+	40	22	3	0	57	76	3.46	-0.19	1.57	10	0	0.0	0	6.6	NNE	23	N	6	10	7	13	6.0	59
ROANOKE	1174	976.5	1018.7	75	54	64.8	- 4.3	93	13+	38	21	3	0	54	71	3.66	0.40	1.80	9	2	0.0	0	7.1	SE	23	WSW	14	9	6	15	6.1	
WASHINGTON																																
OLYMPIA	190	1008.5	1014.6	71	46	58.3	- 0.2	87	5	36	8	0	0	49	75	2.45	0.36	0.92	8	0	0.0	0	5.8	SW	23*	SSW	28	6	11	13	6.4	
SEATTLE TACOMA	[illegible]	1001.4	1015.3	69	50	59.6	0.7	84	5	44	12	0	0	50	77	2.31	0.26	0.90	8	0	0.0	0	8.1	N	35*	SSW	10	8	11	11	5.9	
SEATTLE	14		1015.1											50	69								6.0	SSE								
SEATTLE U	14			70	54	62.2	1.0	82	4	51	12	0	0			2.02	0.37	0.86	8		0.0	0			41	SW	10					54
SPOKANE	2357	946.2	1014.5	75	47	60.7	0.8	87	5	34	8	0	0	37	47	0.90	0.15	0.67	4	0	0.0	0	8.3	NE	27	SW	28	17	8	5	3.7	87
STAMPEDE PASS R	3958	880.5		61	44	52.6	0.7	76	5	34	28	0	0			3.88	-0.51	1.67	11	0	0.9	T						10	9	11	5.1	
TATOOSH ISLAND	101	1012.2	1015.3	59	49	54.0	- 0.8	68	4	45	17+	0	0	50	86	3.66	0.11	1.97	10	0	0.0	0	14.1	ENE	56	S	28	6	9	15	6.7	51
WALLA WALLA U	949	977.7		78	54	65.9	- 0.1	90	6+	41	8	2	0			1.44	0.66	0.91	4	1	0.0	0	4.0	ES	19	N	7	15	8	7	4.2	79
YAKIMA	1061	975.3	1014.0	80	44	61.8	0.5	93	6	34	9	2	0	41	53	0.30	-0.05	0.26	3	0	0.0	0	7.0	W	25*	NE	7	18	6	6	3.3	
WEST INDIES																																
SAN JUAN P.R.	15	1012.1	1015.0	88	74	81.0	0.5	90	25+	71	4+	6	0	73	80	4.85	-1.91	1.69	19	5	0.0	0	6.3	ENE	25	E	29	2	16	12	6.7	54
SWAN ISLAND	28	1010.3		87	78	82.5	- 0.5	90	5+	73	18	2	0			5.89	0.70	2.08	19	11	0.0	0						2	8	20	7.8	
WEST VIRGINIA																																
CHARLESTON	939	982.5	1017.9	75	55	65.0	- 2.7	93	13	35	21	1	0	57	79	3.67	0.75	1.10	14	3	0.0	0	4.9	SW	16*	NNW	5+	6	8	16	6.9	
ELKINS	1970	947.5	1018.5	70	47	58.6		84	13	32	21	0	1	52	82	3.77		0.74	15	3	0.0	0	5.4	WSW	22*	N	2	4	6	20	7.6	
HUNTINGTON	827	987.4	1018.1	75	53	63.9	- 6.0	93	13	36	21	1	0	56	80	2.51	-0.41	1.01	12	2	0.0	0	5.7	SSW	21	NNW	14	7	7	16	6.8	
PARKERSBURG U	615			74	54	63.9	- 4.2	91	13	36	21	1	0			5.37	2.66	2.14	13	5	0.0	0	5.6		37	SW	14					50
WISCONSIN																																
GREEN BAY	682	994.6	1017.3	69	47	58.0	- 1.5	83	12+	34	29	0	0	50	77	3.87	0.95	1.15	11	4	0.0	0	6.0	SW	33	SW	10	10	11	9	5.6	49
LA CROSSE	652	992.9		68	49	58.8	- 3.4	84	12	35	20	0	0	50	77	2.41	-1.07	0.68	8	4	0.0	0	9.0	S	27*	NW	17	7	11	12	6.3	
MADISON	858	982.5	1017.8	70	44	57.1	- 4.9	87	12	30	29+	0	3	49	75	1.31	-2.01	0.57	10	[illegible]	0.0	0	7.8	N	32	SW	10	9	8	13	5.8	56
MILWAUKEE	672	992.7	1017.4	69	47	56.0	- [illegible]	87	12	33	21	0	0	49	73	1.49	-1.23	0.66	8	2	0.0	0	9.5	SSW	35	W	10	11	9	10	5.0	67
WYOMING																																
CASPER	5319	836.8	1015.0	74	43	58.4	- 1.3	84	15+	29	9+	0	2	32	46	1.14	0.24	1.09	4	2	0.2	T	10.7	WSW	46*	N	7	19	6	5	3.5	

See footnotes at end of table

CLIMATOLOGICAL DATA

ENGLISH UNITS

State and Station	Elevation (ground)	Pressure		Temperature											Average relative humidity	Precipitation							Wind					No. of days (sunrise to sunset)			Sky cover, tenths (sunrise to sunset)	Possible sunshine
												No. of days							No. of days		Snow, Sleet				Fastest mile							
		Station Ø	Sea level	Average maximum	Average minimum	Average	Departure from normal	Highest	Date	Lowest	Date	Max 90 F or above	Min 32 F. or below	Average dew point		Total	Departure from normal	Greatest in 24 hours	.01 inch or more	With thunderstorms	Total	Maximum depth on ground	Average speed	Prevailing direction	Speed	Direction	Date	Clear, 0-3	Partly cloudy, 4-7	Cloudy, 8-10		
WYOMING	Ft.	Mb.	Mb.	F.	F.	F.	F	F		F.				F	%	In	In	In			In	In.	M.p.h.		M p.h.							%
CHEYENNE	6126	813.4	1015.1	74	44	58.9	0.8	86	12+	22	9	0	2	36	51	1.30	0.20	0.99	3	3	T	T	11.7	WNW	42	NW	30+	14	6	10	4.6	68
LANDER	5563	836.4	1014.4	75	44	59.4	0.4	88	2	26	9	0	3	34	44	0.56	-0.47	0.34	3	3	2.4	1	7.3	SW	30	W	12	19	7	4	3.2	87
SHERIDAN	3942	885.9	1011.8	71	42	56.6	- 2.2	86	6	29	8	0	3	40	59	1.43	0.26	0.98	7	0	2.3	2	5.8	NW	42	NW	30	15	11	4	3.9	76

Data from airport unless otherwise specified. U indicates Urban, R indicates Rural, sites.
* Data entered in column "Fastest Mile" is the fastest mile observed. This station is not equipped with automatic wind recording instrument.
A Maximum hourly average.
+ And also on an earlier date or dates.
Ø Station pressures apply to elevations shown in the "Elevations - Station Pressure" table of the annual issue of this publication.
B Number of days maximum 70 F. or above for Alaskan Stations.
$ Wind direction to 8 compass points only.
Y Peak Gust.

CLIMATOLOGICAL DATA

METRIC UNITS

State and Station	Elevation (ground)	Pressure		Temperature											Average relative humidity	Precipitation							Wind					No. of days (sunrise to sunset)			Sky cover, tenths (sunrise to sunset)	Possible sunshine
												No. of days							No. of days		Snow, Sleet				Fastest mile (1.6 kilometers)							
		Station Q	Sea level	Average maximum	Average minimum	Average	Departure from normal	Highest	Date	Lowest	Date	Max 32.2 °C or above	Min. 0 C or lower	Average dew point		Total	Departure from normal	Greatest in 24 hours	25 mm or more	With thunderstorms	Total	Maximum depth on ground	Average speed	Prevailing direction	Speed	Direction	Date	Clear, 0-3	Partly cloudy, 4-7	Cloudy, 8-10		
ALABAMA	M.	Mb.	Mb.	C.	C.	C.	C.	C.		C.				C.	%	Mm	Mm.	Mm.			Mm.	Mm	M p.s		M.p.s							%
BIRMINGHAM	186	992.2	1017.4	30.0	17.8	23.8	0.3	36.7	3	7.2	29	9	0	16.1	66	94	9	68	4	5	0	0	3.2	E	10.3	E	21+	11	11	8	5.3	69
HUNTSVILLE	184	994.3	1017.3	29.4	17.2	23.1	-0.6	37.8	12+	6.1	29	10	0	16.1	68	96	18	36	9	4	0	0	3.8	SE	15.6*	WNW	4	8	9	13	6.0	
MOBILE	64	1013.1	1015.4	31.1	20.0	25.6	0.3	35.0	5	12.8	30+	12	0	20.0	76	124	- 35	41	14	13	0	0	2.4	ENE	9.4*	E	14	5	14	11	5.8	
MONTGOMERY	59	1008.4	1016.5	31.7	20.0	25.8	0.8	37.2	5+	10.6	29	13	0	18.9	69	83	- 18	30	5	6	0	0	3.2	ENE	10.7	SW	16	9	12	9	5.4	69
ALASKA												B																				
ANCHORAGE	27	1001.5	1006.3	11.7	3.3	7.6	-1.2	18.3	2	- 2.2	29	0	5	2.8	75	37	- 27	15	11	0	0	0	2.5	SSE	10.3*	SE	2	3	7	20	7.7	43
ANNETTE	34	1009.4	1013.5	15.6	10.0	12.9	0.9	21.7	4+	5.6	11	3	0	9.4	80	267	16	44	22	1	0	0	3.8	SE	13.0*	S	29+	3	4	23	8.3	
BARROW	7	1008.7	1009.3	0.6	- 2.8	- 1.1	-0.2	6.1	5	- 7.2	28+	0	28	- 3.3	84	25	9	7	18	0	137	51	7.2	ENE	16.1*	SW	4	0	3	27	9.5	
BARTER ISLAND	12	1006.9	1008.8	1.7	- 2.2	- 0.3	-0.3	9.4	11+	- 4.4	28+	0	29	- 2.8	83	27	3	10	13	0	246	102	4.8	E	17.9*	WSW	3	1	3	26	9.0	
BETHEL	38	1004.6	1006.0	8.9	2.2	5.5	-1.5	12.8	8	- 3.3	15	0	3	3.3	85	59	- 7	24	17	0	36	25	5.9	S	16.5*	S	1	1	4	25	8.8	
COLD BAY	29	1004.7	1008.6	10.0	6.1	8.2	-0.4	15.6	2	1.7	25	0	0	5.6	84	98	- 12	21	24	0	0	0	7.5	NW	19.2*	SE	17	0	2	28	9.3	
CORDOVA	12	1004.9	1006.6	12.8	3.9	8.3	-0.4	17.2	1	- 1.1	29+	0	6	5.0	82	316	- 2	65	19	0	0	0	2.8	ESE	10.3*	SE	19	2	5	23	8.5	
FAIRBANKS	133	990.6	1007.7	10.0	1.1	5.3	-1.2	17.2	19	- 2.8	18	0	15	1.7	80	36	8	18	11	0	13	0	2.8	N	9.4*	WSW	3	1	7	22	8.5	
JUNEAU	5	1009.5	1010.5	12.8	5.6	9.2	-0.2	17.8	2	0.0	11	0	1	6.7	85	248	78	42	23	1	0	0	4.5	ESE	13.9*	ESE	24	1	5	24	9.0	22
KING SALMON	13	1003.8	1005.8	11.7	2.8	7.1	-1.7	16.7	2	- 3.9	16	0	7	3.3	77	37	- 41	10	15	0	T	0	4.9	NNW	17.9*	ENE	19	0	8	22	8.4	
KOTZEBUE	3	1005.4	1005.8	6.1	1.7	4.1	-0.9	11.7	2	- 5.0	30	0	9	1.1	83	50	19	21	16	0	150	51	5.7	E	23.2*	WNW	3	1	2	27	9.2	
MC GRATH	102	994.8	1007.6	10.0	0.0	4.9	-1.7	17.2	2	- 6.7	16	0	19	1.1	77	31	- 35	20	13	0	18	0	2.3	N	13.0*	SSW	2	1	6	23	8.5	
NOME	4	1004.9	1005.2	6.7	1.7	4.2	-1.3	10.6	1	- 3.9	30	0	12	1.7	82	41	- 27	21	17	0	38	0	6.5	SW	15.6*	WNW	2	0	5	25	9.0	
ST. PAUL ISLAND	7	1008.2	1009.2	8.9	2.8	5.6	-1.4	11.1	1	- 2.2	4	0	7	3.9	88	56	- 22	10	21	0	0	0	7.5	NW	20.6*	NW	18	2	3	25	8.7	
SHEMYA	37	1013.5	1017.2	10.6	6.7	8.4	-0.7	11.7	14+	2.8	4	0	0	6.7	87	65	8	26	13	0	0	0	7.5	SW	20.6*	N	20	6	6	18	7.2	
YAKUTAT	9	1007.1	1008.1	12.8	5.0	8.8	-0.7	17.2	1	0.0	28+	0	2	6.7	88	465	44	76	22	1	0	0	3.8	ENE	20.6*	SE	24	2	3	25	8.6	
ARIZONA																																
FLAGSTAFF	2131	793.1	1016.3	23.3	6.1	14.8	0.1	28.9	18+	0.6	1	0	0	5.0	61	63	23	28	13	15	0	0	2.4	S	9.4*	SSE	8	12	8	10	4.5	
PHOENIX	338	970.9	1008.9	36.7	21.7	29.1	0.0	42.8	17	15.6	30	24	0	13.3	41	10	- 9	4	4	3	0	0	2.1	SE	15.6*	N	6	20	6	4	2.8	83
PRESCOTT	1528	848.0	1013.0	28.9	12.8	20.7	0.3	34.4	17	7.8	29	7	0	8.3	54	74	43	22	13	10	0	0	3.9	SSW	19.2	W	20	11	17	2	4.1	74
TUCSON	788	923.8	1009.6	33.9	21.1	27.4	0.2	40.0	17	15.6	30+	19	0	13.3	47	73	47	61	7	9	0	0	4.1	S	17.0	SE	13	17	7	6	3.9	81
WINSLOW	1487	852.7	1014.0	29.4	12.8	20.9	-0.8	35.6	18	6.7	29	10	0	7.8	51	22	- 1	11	8	9	0	0	3.5	ESE	15.6*	WSW	28	13	9	8	4.4	
YUMA	61	1003.4	1008.5	39.4	24.4	31.7	0.0	45.6	2	16.7	29	29	0	15.0	44	T	- 10	T	0	1	0	0	3.7	SSE	13.4	SE	4	23	3	4	2.2	88
ARKANSAS																																
FORT SMITH	137	999.7	1016.5	27.8	17.2	22.4	-1.4	35.6	14	10.0	28	4	0	17.8	80	127	34	28	13	6	0	0	3.0	ENE	11.6	W	4	7	7	16	6.8	48
LITTLE ROCK	78	1003.9	1016.9	28.3	17.8	22.9	-0.6	34.4	14+	6.7	29	5	0	18.3	78	97	15	33	9	5	0	0	2.7	ENE	13.4	NE	14	5	12	13	6.7	45
TEXARKANA	110			29.4	18.9	24.3	-0.4	34.4	14+	11.1	29+	7	0	20.0	82	115	46	52	12	6	0	0	3.2	ENE								96
CALIFORNIA																																
BAKERSFIELD	151	994.6	1011.9	32.2	16.7	24.4	-0.3	37.8	17	12.8	29+	17	0	10.6	45	1	- 2	1	1	2	0	0	3.0	NW	7.6*	NW	26	28	1	1	.5	
BISHOP	1252	873.0		32.2	7.2	19.7	-0.2	36.1	18	3.3	20	17	0			12	7	12	2	2	0	0						26	2	2	1.0	
BLUE CANYON	1609	840.2		23.3	12.8	18.1	0.6	28.9	17+	4.4	28	0	0			5	- 11	3	2	0	0	0	3.0	SSW	10.7	SSW	12+	25	1	4	1.7	
BURBANK	213	986.1	1011.9	28.9	15.0	21.8	-0.8	34.4	23+	11.7	14	7	0	12.8	66	T	- 7	T	0	0	0	0	2.7	ESE	7.6*	ESE	3	22	7	1	2.2	
EUREKA U	13	1013.5		16.7	11.7	13.9	0.4	21.1	13	8.9	12	0	0			18	2	17	3	0	0	0	2.3	N$	12.5	SW	28	5	4	21	7.7	39
FRESNO	99	999.3	1011.0	33.3	14.4	23.7	0.4	38.3	2	11.1	21	21	0	10.0	48	T	- 3	T	0	2	0	0	2.5	WNW	8.5	N	25	29	1	0	.4	99
LONG BEACH	10	1010.8	1012.5	26.1	15.0	20.5	-1.2	33.9	23	11.1	5	2	0	15.0	78	0	- 2	0	0	0	0	0	2.6	WNW	7.2*	W	28+	16	12	2	3.9	
LOS ANGELES	30	1009.1	1012.8	23.3	16.7	19.8	0.1	29.4	19	14.4	29+	0	0	15.6	80	T	- 4	T	0	0	0	0	2.8	WSW	7.6*	WSW	24+	16	10	4	4.1	
LOS ANGELES U	95			26.7	16.1	21.6	-0.6	34.4	23	13.9	29+	2	0	13.3	68	0	- 6	0	0	0	0	0	2.2	W$	7.6	W	28	22	6	2	2.5	80
MT SHASTA R	1080	891.6		27.2	7.2	17.3	0.9	35.0	5	2.2	29	8	0			14	- 8	13	3	0	0	0						22	4	4	2.1	
OAKLAND	1	1013.5	1013.9	21.1	12.8	16.9	-1.5	31.1	16	10.0	23	0	0	11.1	76	5		5	3	0	0	0	4.4	WNW	10.3*	SW	27	13	10	7	4.4	
POINT ARGUELLO	112	1000.0		17.2	11.1	14.1	-1.4	21.7	30+	8.9	19	0	0			3		1	10	0	0	0	2.9		9.8*	NW	20	3	2	25	8.4	
RED BLUFF	104	998.6	1011.3	32.2	15.0	23.5	-0.9	39.4	16	12.2	30+	18	0	7.2	40	6	- 3	6	1	0	0	0	3.6	SSE	14.3	SE	28	26	1	3	1.4	94
SACRAMENTO	5	1011.2	1012.3	31.1	12.2	21.6	-1.5	36.1	17+	10.0	30+	12	0	11.7	63	2	- 3	1	3	1	0	0	2.9	SSW	11.2	SW	12	25	3	2	1.2	94
SACRAMENTO U	7			30.0	12.8	21.4	-1.3	35.6	16	11.1	20+	11	0			3	- 3	2	2		0	0										
SANDBERG R	1377	862.5		27.2	15.6	21.4	0.7	32.2	2+	7.8	29	2	0			0	- 5	0	0	0	0	0	4.2	WNW	13.4*	N	29	28	2	0	.5	
SAN DIEGO	4	1008.8	1012.0	23.9	16.7	20.2	-0.6	31.7	23	15.0	9	0	0	15.0	76	0	- 4	0	0	0	0	0	3.1	NW	8.9	NW	23	16	12	2	3.8	67
SAN FRANCISCO	2	1013.9	1014.5	20.6	11.7	16.1	-1.6	30.0	16	8.9	23	0	0	11.1	79	2	- 3	2	1	0	0	0	5.5	WNW	16.5	W	19	15	10	5	3.7	
SAN FRANCISCO	16			17.2	11.7	14.6	-2.1	25.0	30	10.0	24+	0	0			6	0	5	3	0	0	0	4.3	SW$	12.1	SW	19					56
SANTA MARIA	73	1005.1	1013.8	21.1	10.6	15.8	-1.3	26.7	30	6.7	20	0	0	12.2	86	T	- 4	T	0	0	0	0	2.7	WNW	10.7*	WNW	20	13	14	3	4.2	
COLORADO																																
ALAMOSA	2297	774.8		22.8	2.2	12.7	-0.4	27.2	4+	- 6.1	10	0	8			21	1	10	10	9	0	0						11	11	8	4.9	
COLORADO SPRINGS	1882	814.4	1016.5	24.4	8.9	16.7	0.6	31.7	18+	0.6	10	0	0	3.3	51	10	- 17	8	4	7	T	0	4.2	N	15.6*	N	8	12	10	8	4.8	
DENVER	1610	839.5	1014.5	26.1	7.8	16.9	-0.6	32.8	12	- 0.6	9+	5	2	3.3	48	5	- 24	2	5	1	18	T	4.0	SSW	13.0	S	27+	14	5	11	4.9	76
GRAND JUNCTION	1478	859.8	1013.4	27.2	11.7	19.7	-0.2	33.3	18	5.0	9	5	0	- 0.6	34	36	13	21	5	5	0	0	2.7	SE	13.9	NW	19	18	7	5	3.3	82

See footnotes at end of table

CLIMATOLOGICAL DATA

METRIC UNITS

State and Station	Elevation (ground)	Pressure		Temperature											Average relative humidity	Precipitation							Wind					No of days (sunrise to sunset)			Sky cover, tenths (sunrise to sunset)	Possible sunshine
												No. of days							No of days		Snow, Sleet				Fastest mile (1.6 kilometers)							
		Station O	Sea level	Average maximum	Average minimum	Average	Departure from normal	Highest	Date	Lowest	Date	Max 32.2 °C or above	Min. 0 C or lower	Average dew point		Total	Departure from normal	Greatest in 24 hours	25 mm or more	With thunderstorms	Total	Maximum depth on ground	Average speed	Prevailing direction	Speed	Direction	Date	Clear, 0-3	Partly cloudy, 4-7	Cloudy, 8-10		
COLORADO	M.	Mb.	Mb.	C.	C.	C	C.	C		C				C.	%	Mm.	Mm.	Mm.			Mm.	Mm.	M.p.s.		M.p.s.							%
PUEBLO	1414	857.8	1014.2	27.2	10.6	18.9	-0.3	34.4	18	1.1	10	6	0	6.1	50	5	- 16	3	5	4	0	0	4.2	ESE	21.0	N	8	15	7	8	4.6	74
CONNECTICUT																																
BRIDGEPORT	2	1017.5	1018.4	21.1	12.2	16.8	-1.8	27.2	14	2.8	21	0	0	11.1	72	70	- 30	41	9	0	0	0	6.0	SW	14.8*	ENE	27	10	7	13	5.7	
HARTFORD	52	1011.4	1017.4	22.2	8.9	15.6	-1.3	30.0	14	- 0.6	21	0	2	10.6	76	118	25	45	11	2	0	0	3.2	S	8.9	N	6	8	8	14	6.3	62
NEW HAVEN	2	1017.1		21.7	11.7	16.6	-1.2	27.8	11	3.9	22	0	0			75	- 25	50	8	0	0	0	3.6		10.7	W	11+	10	7	13	5.8	63
DELAWARE																																
WILMINGTON	24	1014.8	1018.1	23.3	11.7	17.6	-2.2	32.8	1	3.3	21	1	0	11.7	72	93	- 8	50	9		0	0	4.1	WNW	10.7*	E	23+	11	6	13	5.8	
DIST.OF COLUMBIA																																
WASHINGTON U	22			23.3	12.8	18.1	-3.0	32.2	13	6.7	22+	1	0			66	- 45	26	7													
WASH NATL AP	4	1013.6	1018.3	24.4	14.4	19.4	-1.5	34.4	1	6.7	21	2	0	12.8	67	67	- 30	21	9	0	0	0	3.1	S	11.6	NW	11+	10	7	13	5.8	61
FLORIDA																																
APALACHICOLA U	4	1013.6		28.9	22.2	25.7	-0.4	33.3	5	13.9	29	4	0			219	2	82	14	10	0	0	3.0		10.3	NE	22	4	11	15	6.8	51
DAYTONA BEACH	9	1014.7	1016.6	30.6	22.2	26.3	0.1	33.3	18+	16.1	29	3	0	21.1	77	225	47	80	12	11	0	0	3.4	E	9.4*	ENE	24	3	14	13	6.9	
FORT MYERS	4	1014.5		31.7	23.9	27.8	0.4	33.9	13+	21.7	29+	20	0		80	369	153	237	17	15	0	0	3.9		13.9*	WSW	16	7	15	8	5.9	
JACKSONVILLE	7	1015.4	1016.9	30.6	21.7	26.1	-0.2	35.0	6+	12.8	29	14	0	21.1	79	111	- 81	23	15	9	0	0	2.9	NE	15.6	N	21	1	16	13	7.2	51
KEY WEST	2	1014.8	1015.2	31.7	25.6	28.4	0.4	32.8	27+	23.3	21+	12	0	23.3	73	130	- 41	27	21	15	0	0	4.3	ESE	15.2	S	21+	2	16	12	6.8	56
LAKELAND U	65			31.7	22.2	26.9	0.1	34.4	10+	17.2	29	16	0			157	- 10	54	15	16	0	0	2.5					4	17	9	6.3	58
MIAMI BEACH	3			30.6	25.6	28.1	0.5	32.8	9+	21.1	21	4	0			180	- 7	77	16	0	0	0	5.0		17.0	W	20	6	16	8	6.3	46
MIAMI	2	1014.0	1015.4	31.1	23.3	27.3	-0.1	32.8	26	21.7	21	5	0	22.8	78	199	- 42	53	18	18	0	0	3.0	ESE	17.9*	SSE	21	3	14	13	6.9	
ORLANDO	32	1011.5	1016.2	32.2	21.7	27.0	0.3	35.6	18+	17.2	29+	18	0	21.7	79	311	127	103	16	9	0	0	2.9	ESE	12.5*	SW	22	2	17	11	6.9	
PENSACOLA U	4			29.4	21.7	25.6	-0.2	32.8	5	16.1	30+	2	0			79	-101	35	12	9	0	0	3.6		8.9	NW	26					55
TALLAHASSEE	18	1013.7	1016.4	31.1	20.6	25.7	0.1	37.2	4	7.8	29	16	0	20.6	79	171	31	75	13	15	0	0	3.7	ENE	9.4*	S	26+	2	15	13	7.1	
TAMPA	6	1014.2	1015.9	30.6	22.2	26.5	-0.4	34.4	12	16.7	29	10	0	21.7	78	192	17	110	15	18	0	0	4.2	E	11.6*	S	22	0	20	10	6.8	59
WEST PALM BEACH	5	1014.7	1015.8	31.7	23.3	27.6	-0.3	35.0	7	20.0	22	16	0	22.8	77	228	- 18	90	15	15	0	0	3.4	ESE	12.1*	N	14	3	13	14	6.8	
GEORGIA																																
ATHENS	245	989.1	1018.0	27.8	16.1	21.9	-1.1	35.6	4+	6.1	29	10	0	16.7	75	135	58	67	4	2	0	0	2.9	ENE	7.6*	E	20+	11	8	11	5.6	
ATLANTA	306	975.9	1017.6	26.7	15.6	21.1	-1.7	33.9	3	5.0	29	5	0	15.0	72	89	6	62	10	3	0	0	2.9	ENE	7.2*	NNW	27+	10	10	10	5.5	69
AUGUSTA	44	1010.0	1016.9	29.4	17.2	23.3	-0.7	36.7	5	7.8	28	12	0	17.2	75	76		45	6	7	0	0	2.4	SE	13.4*	SE	12	5	11	14	6.4	
COLUMBUS	117	1002.8		30.0	18.3	24.1	-0.3	36.1	11	7.8	29	13	0			82	12	29	11	7	0	0	3.0		14.3*	FSE	13	6	12	12	5.9	
MACON	109	1003.2	1016.7	30.0	17.8	24.0	-0.7	36.7	11+	7.8	29	13	0	17.2	72	46	- 24	21	8	9	0	0	2.5	NE	8.9	NW	27	9	9	12	5.8	63
ROME	194	995.0		28.9	15.0	21.8	-0.7	36.1	4+	2.2	29	10	0			55	- 29	36	9	7	0	0						7	13	10	5.6	
SAVANNAH	15	1014.7	1017.5	29.4	18.9	24.1	-0.8	35.0	5	10.0	29+	9	0	19.4	80	167	33	57	10	9	0	0	3.2	NNE	20.1	W	6	2	13	15	7.0	60
THOMASVILLE U	86			30.6	20.0	25.2	-0.6	36.1	12	10.6	29	14	0			169	46	50	14	16	0	0						5	10	15	7.0	
HAWAII																																
HILO	9	1014.7	1016.5	27.8	19.4	23.7	-0.5	29.4	10+	17.2	8	0	0	19.4	79	241	25	90	26	0	0	0	2.9	WSW	7.6*	E	28	1	7	22	8.1	25
HONOLULU	2	1019.0	1016.0	29.4	22.8	26.2	-0.1	31.1	2	20.6	28+	0	0	18.9	66	17	- 8	6	6		0	0	6.2	ENE	15.6	E	13	6	16	8	5.7	81
LIHUE	35	1011.7	1017.2	29.4	22.8	26.1	0.4	30.6	4+	19.4	9	0	0	19.4	70	29	- 24	12	15	0	0	0	6.1	NE	13.0	E	4	4	21	5	5.5	85
IDAHO																																
BOISE	865	918.4	1013.5	27.2	10.0	18.4	1.1	31.7	26	1.7	29	0	0	2.2	39	10		6	4	0	0	0	3.2	SE	13.0	NW	7	19	8	3	2.8	89
IDAHO FALLS 42NW R	1460			25.0	1.7	13.3	-0.1	31.1	18	- 7.8	9	0	10			27	11	25	3													
IDAHO FALLS 46W R	1504	849.0		24.4	3.9	14.1	0.4	30.6	18	- 5.6	9	0	4			31	22	30	3	2	0	0	3.2	SW	15.6A	WSW	11					
LEWISTON	431	962.4		26.1	10.0	17.9	0.4	33.3	6	2.8	8	3	0			21	- 2	12	7	0	0	0						17	5	8	3.9	
POCATELLO	1355	863.9	1015.3	25.6	6.1	15.8	0.1	32.8	18	- 1.7	9	1	2	- 1.1	37	10	- 5	4	3	2	0	0	4.2	SSW	12.1	SW	29	20	5	5	2.8	81
ILLINOIS																																
CAIRO U	96	1004.3		25.0	16.7	20.8	-1.7	33.3	13	8.3	29	2	0			166	90	59	11	5	0	0	3.0	N$	15.2	SW	14	7	9	14	6.2	65
CHICAGO O HARE	201	992.9	1017.5	23.3	8.9	15.9		32.8	13+	0.6	21	2	0	10.0	69	38		29	6	2	0	0	4.2	SSW	10.3*	NNE	27+	11	11	8	5.1	
CHICAGO MIDWAY	186	995.1	1017.9	23.3	12.8	17.9	-1.2	34.4	13	5.6	21	2	0	9.4	61	20	- 50	5	8	2	0	0	4.2	S	13.9	SW	13	10	11	9	5.2	64
MOLINE	177	995.5	1017.8	23.3	10.0	16.5	-2.0	33.3	12	0.0	29	1	1	11.1	72	74	- 9	30	7	1	0	0	3.2	SSW	16.5	SW	3	13	11	6	4.4	72
PEORIA	199	995.6	1018.3	23.3	10.6	17.0	-2.1	33.3	12	1.7	20	1	0	10.0	67	33	- 45	17	6	3	0	0	4.1	N	12.1	W	10	16	7	7	4.2	72
ROCKFORD	222	990.6	1017.8	21.7	10.0	15.8	-1.8	32.2	12	0.6	29	1	0	10.0	71	44	- 45	22	10	4	0	0	4.1	SSW	13.4*	W	10	10	11	9	5.0	
SPRINGFIELD	179	994.0	1017.2	25.0	11.7	18.4	-1.4	33.9	13	1.7	20	2	0	11.1	67	36	- 38	17	7	0	0	0	3.8	S	14.8	W	10	15	5	10	4.4	69
INDIANA																																
EVANSVILLE	116	1002.0	1017.8	24.4	12.8	18.6	-2.3	33.9	13	3.3	29	1	0	14.4	80	130	57	64	7	3	0	0	2.8	NW	15.2	W	3	9	5	16	6.0	67
FORT WAYNE	241	987.0	1018.2	22.8	10.0	16.5	-1.7	32.2	13	0.6	29+	1	0	10.6	69	37	- 31	11	8	3	0	0	4.1	W	13.9	W	10	10	10	10	5.4	70

See footnotes at end of table

CLIMATOLOGICAL DATA

METRIC UNITS

State and Station	Elevation (ground)	Pressure: Station Ø	Pressure: Sea level	Temperature: Average maximum	Temperature: Average minimum	Temperature: Average	Temperature: Departure from normal	Temperature: Highest	Date	Temperature: Lowest	Date	No. of days: Max 32.2 °C or above	No. of days: Min. 0 C or lower	Average dew point	Average relative humidity	Precipitation: Total	Precipitation: Departure from normal	Precipitation: Greatest in 24 hours	No. of days: 25 mm. or more	No. of days: With thunderstorms	Snow, Sleet: Total	Snow, Sleet: Maximum depth on ground	Wind: Average speed	Wind: Prevailing direction	Fastest mile (1.6 kilometers): Speed	Fastest mile: Direction	Fastest mile: Date	No. of days (sunrise to sunset): Clear, 0-3	Partly cloudy, 4-7	Cloudy, 8-10	Sky cover, tenths (sunrise to sunset)	Possible sunshine
INDIANA	M.	Mb.	Mb.	C.	C.	C.	C.	C.		C.				C.	%	Mm.	Mm.	Mm.			Mm.	Mm.	M.p.s.		M.p.s.							%
INDIANAPOLIS	242	988.1	1018.1	22.8	11.7	17.0	-2.2	31.1	13	3.9	21	0	0	12.2	76	105	23	72	10	2	0	0	3.1	S	10.7*	NNW	14	12	7	11	5.5	62
SOUTH BEND	234	989.5	1017.6	22.2	10.0	16.1	-1.6	32.2	13	1.7	21	1	0	10.6	71	33	- 45	29	4	2	0	0	4.0	S	10.3*	NNW	19+	9	11	10	5.6	
IOWA																																
BURLINGTON	212	992.6	1018.0	23.9	11.1	17.4	-1.5	33.3	12	2.2	20	2	0	11.1	69	84	3	44	8	4	0	0	3.9	S	25.0	W	13	14	10	6	4.3	75
DES MOINES	289	986.7	1017.9	23.3	11.1	17.4	-1.4	32.2	12	2.8	20	1	0	10.0	65	49	- 24	13	8	3	0	0	3.2	SSE	12.1	NW	17	10	9	11	5.1	67
DUBUQUE	325	992.4		20.6	8.9	14.8	-1.7	30.6	12	2.2	29+	0	0			83	- 12	27	8	3	0	0			12.1*	WSW	10	11	12	7	5.2	
SIOUX CITY	334	975.9	1017.2	22.8	9.4	16.1	-2.0	31.7	12	1.7	20	0	0	11.7	78	63	- 7	27	8	5	0	0	3.4	SSE	13.0	NW	3	12	9	9	4.7	63
WATERLOO	265	985.9	1017.9	21.1	8.3	14.8	-2.7	30.0	12	0.0	20	0	1	10.6	77	44	- 53	14	7	3	0	0	3.6	SE	9.8*	ESE	8+	11	12	7	5.1	
KANSAS																																
CONCORDIA	448	966.6	1016.3	23.9	12.2	18.2	-2.8	33.3	12	5.6	20+	1	0	13.9	78	105	36	38	12	10	0	0	4.8	SSE	13.9	NE	18	10	9	11	5.5	56
DODGE CITY	791	928.2	1015.6	24.4	13.3	18.8	-2.4	35.6	12	5.0	9	2	0	13.9	78	108	69	45	14	10	0	0	4.9	SSE	32.6	NE	16	7	9	14	6.3	54
GOODLAND	1111	889.6	1015.8	25.0	9.4	17.1	-1.6	34.4	11	2.2	9	3	0	10.0	71	20	- 11	9	8	7	0	0	5.4	SSE	17.4*	NNW	30	10	10	10	5.4	
TOPEKA	267	981.3	1016.9	23.9	13.3	18.6	-2.2	33.9	13	5.0	20+	2	0	14.4	80	114	39	31	14	9	0	0	4.5	E	24.1	E	14	7	8	15	6.6	49
WICHITA	403	967.4	1015.6	25.0	15.6	20.3	-1.5	36.1	13	7.2	10+	3	0	15.6	78	209	127	59	17	11	0	0	4.6	S	19.2	N	4	7	6	17	6.6	48
KENTUCKY																																
COVINGTON	265	985.9	1017.7	24.4	10.6	17.5	-2.6	32.8	13	0.6	29	1	0	10.6	68	68	- 4	28	11	2	0	0	2.7	SSW	8.9*	SW	1	8	5	17	6.3	
LEXINGTON	298	982.5	1018.2	23.9	12.8	18.3	-2.4	32.2	13	5.0	29+	1	0	13.3	75	68	- 4	21	13	3	0	0	2.8	SW	10.3*	ENE	6+	8	9	13	5.9	
LOUISVILLE	144	998.7	1017.8	23.9	12.8	18.3	-2.2	32.8	13	3.9	29	1	0	13.3	75	90	24	25	10	4	0	0	2.9	SSE	9.8	N	17	8	5	17	6.3	46
LOUISIANA																																
ALEXANDRIA	28	1011.5	1016.0	31.1	18.9	24.9		34.4	13	11.7	29+	12	0	20.0	80	84		20	8	6	0	0	1.7	NE				8	13	9	5.5	
BATON ROUGE	20	1012.7	1015.8	31.7	20.6	26.3	1.1	34.4	2	13.3	21	15	0	20.6	75	109	20	54	9	12	0	0	2.2	NE				9	18	3	4.5	
BURRWOOD P	2		1015.6											22.8	75	0		29			0	0	4.2	NE								
LAKE CHARLES	4	1014.0	1015.4	31.1	21.7	26.2	0.3	33.3	14	14.4	29	12	0	21.7	80	26	- 76	9	7	11	0	0	3.0	ENE	10.3	ENE	15	7	16	7	5.4	
NEW ORLEANS	1	1013.3	1015.4	31.1	20.6	25.8	0.4	33.9	8	14.4	29	15	0	21.7	81	64	- 64	27	7	10	0	0	2.5	NE	9.4*	S	8	6	21	3	5.1	
NEW ORLEANS AUDUBON	3	1008.8		31.1	21.7	26.6		34.4	9	16.7	29	13	0			136		46	9	10	0	0										
SHREVEPORT	77	1007.2	1016.4	30.6	20.0	25.3	-0.2	35.6	13	12.8	21	12	0	19.4	74	65	7	30	11	8	0	0	3.3	SSE				13	6	11	5.1	70
MAINE																																
CARIBOU		993.0	1016.4	16.1	5.6	10.9	-1.2	25.6	1	- 2.2	21	0	4	7.8	82	98	8	36	14	2	0	0	3.9	WSW	12.1*	E	28	4	6	20	7.6	
PORTLAND	19	1013.1	1017.1	19.4	7.2	13.4	-1.4	27.2	14	- 2.8	22	0	2	9.4	78	64	- 25	34	10	0	0	0	3.9	W	18.8	E	28	7	11	12	6.2	56
MARYLAND																																
BALTIMORE	45	1013.3	1018.2	25.0	11.7	18.2	-1.8	37.2	1	2.8	22+	4	0	11.7	71	61	- 24	28	8	0	0	0	3.6	W	12.1	W	18+	10	7	13	5.8	52
BALTIMORE U	4			24.4	15.6	19.9	-1.6	35.6	1	7.8	21	1	0			61	- 31	24	7													
FREDERICK	90			23.3	10.6	16.9	-2.4	35.6	1	1.1	21	2	0			51	- 36	22	10	0	0	0										
MASSACHUSETTS																																
BLUE HILL OBS R	192	992.8	1016.1	20.6	10.6	15.4	-1.4	28.9	14	1.7	21	0	0		70	117	16	72	12	0	0	0	6.0	WNW	21.9	NE	28					60
BOSTON	5	1012.1	1016.8	21.7	12.8	17.2	-1.3	30.0	14	5.0	21	0	0	10.0	67	104	16	62	10	1	0	0	6.0	SW	21.0	NE	28	10	6	14	6.0	62
NANTUCKET	13	1016.7	1017.3	19.4	13.3	16.4	-0.5	25.0	2	7.2	21	0	0	12.2	80	100	11	37	11	0	0	0	5.5	WSW	15.2	N	24	8	7	15	6.4	55
PITTSFIELD	357			19.4	6.7	13.0	-1.5	29.4	1	- 2.8	22	0	4			78	- 36	27	13		0	0										
WORCESTER	301	980.7	1017.5	19.4	10.0	14.6	-1.4	26.7	10+	0.6	21	0	0	7.8	66	138	38	67	11	2	0	0	3.5	W	13.4*	ENE	28	9	8	13	5.7	
MICHIGAN																																
ALPENA	210	991.6		19.4	5.6	12.4	-1.8	28.9	13+	- 0.6	21	0	1			73	- 19	23	11	5	0	0	3.1	W$	13.4	W	10	8	7	15	6.1	62
DETROIT	189	991.1	1017.7	21.1	11.7	16.3	-1.8	30.6	13	4.4	20	0	0	10.6	70	76	14	34	15	8	0	0	4.2	N	25.5	NW	13	8	12	10	5.6	57
DETROIT M WAYNE CO	193	993.6	1017.7	22.2	9.4	15.8	-1.8	32.2	13	1.7	21	1	0	10.0	70	87	28	33	12	7	0	0	3.4	SW				7	13	10	6.0	
DETROIT WILLOW RUN	217	989.3	1017.6	22.2	10.0	16.2	-2.0	32.2	13	2.8	20	1	0	10.6	72	82	24	43	11	5	0	0	4.7	NW	20.6	WNW	13	6	15	9	6.0	
ESCANABA U	181	994.4		17.2	8.3	12.9	-1.2	25.6	1	2.2	20	0	0			55	- 24	12	12	2	0	0	4.2		11.6	N	19+	8	11	11	5.9	45
FLINT	233	990.5	1018.3	20.6	8.3	14.3	-2.2	29.4	13+	0.0	30	0	1	9.4	74	60	- 15	18	10	6	0	0	3.7	SSW	12.5*	WSW	10	5	16	9	6.1	
GRAND RAPIDS	208	992.7	1018.0	22.2	9.4	15.8	-1.0	32.8	12	0.0	21	1	1	8.3	65	72	- 4	62	6	3	0	0	4.2	W	18.8	W	10	6	12	12	6.0	53
LANSING	260	985.6	1017.6	21.7	8.3	15.1	-1.6	30.0	13	- 1.1	21	0	2	8.9	70	57	- 9	24	9	7	T	0	5.1	S	25.5	N	13	7	13	10	5.9	74
MARQUETTE U	206	989.5		16.7	8.3	12.6	-1.7	27.8	12	2.8	20	0	0			118	35	34	12	3	0	0	3.4	W$	13.9	SE	16	5	12	13	6.4	57
MUSKEGON	191	994.6	1017.7	21.1	9.9	14.9	-1.4	29.4	3	- 0.6	21	0	1	9.4	72	94	16	57	9	4	T	0	[illegible]	SSW	12.1*	SSW	13+	9	8	13	5.9	
SAULT STE MARIE	220	993.7	1016.5	17.2	7.2	12.1	-0.9	25.6	3	1.1	20	0	0	8.3	80	80	- 17	22	13	4	T	0	4.1	WNW	11.2*	WNW	18	4	11	15	6.9	47
MINNESOTA																																
DULUTH	435	975.6	1017.5	17.2	5.0	11.1	-1.6	25.0	12	- 5.0	20	0	3	5.6	71	77	4	41	9	3	0	0	4.6	WNW	15.6	W	16	9	10	11	6.0	56
INTERNATIONAL FALLS	359	975.6	1017.1	17.8	4.4	11.1	-0.6	27.2	2	- 3.3	20	0	4	6.1	75	91	17	62	8	1		0	3.0	NW	10.3*	WNW	16+	9	7	14	5.9	

See footnotes at end of table

CLIMATOLOGICAL DATA

METRIC UNITS

State and Station	Elevation (ground)	Pressure		Temperature								No. of days			Average relative humidity	Precipitation			No. of days		Snow, Sleet		Wind		Fastest mile (1.6 kilometers)			No. of days (sunrise to sunset)			Sky cover, tenths (sunrise to sunset)	Possible sunshine
		Station Q	Sea level	Average maximum	Average minimum	Average	Departure from normal	Highest	Date	Lowest	Date	Max 32.2 °C or above	Min 0 C or lower	Average dew point		Total	Departure from normal	Greatest in 24 hours	25 mm or more	With thunderstorms	Total	Maximum depth on ground	Average speed	Prevailing direction	Speed	Direction	Date	Clear, 0-3	Partly cloudy, 4-7	Cloudy, 8-10		
MINNESOTA	M.	Mb.	Mb.	C.	C.	C.	C	C.		C.				C.	%	Mm.	Mm.	Mm.			Mm.	Mm.	M.p.s.		M.p.s.							%
MINNEAPOLIS	555	984.3	1017.4	20.0	7.2	13.6	-2.3	27.8	2	- 2.2	20	0	1	9.4	76	62	1	12	11	4	0	0	3.7	S	12.5	NW	3	9	12	9	5.4	55
ROCHESTER	395	970.0	1018.1	19.4	7.8	13.7	-2.3	28.3	12	- 0.6	20	0	1	9.4	77	48	- 31	16	10	5	0	0	4.7	S				9	9	12	5.7	
ST CLOUD	315	979.4	1017.6	20.0	7.2	13.4	-1.5	27.8	2	- 1.1	20	0	1		74	94	33	26	8	4	0	0						14	8	8	4.7	
MISSISSIPPI																																
JACKSON	93	1004.0	1016.1	31.7	18.9	25.1	0.6	36.1	13	7.8	29	14	0	17.8	69	59	- 4	41	8	8	0	0	2.8	SE	14.3	SW	14	11	15	4	4.6	78
MERIDIAN	89	1005.4	1016.6	32.2	17.8	24.8	0.4	37.2	4+	6.7	29	16	0	17.8	72	42	- 42	18	7	6	0	0	2.4	N	7.6*	N	11+	9	15	6	4.8	
VICKSBURG U	71	1006.9		30.0	20.0	24.9	0.2	34.4	12+	11.7	29	10	0			10	- 54	6	3	5	0	0	3.2		9.4	W	8	13	12	5	4.6	82
MISSOURI																																
COLUMBIA	237	988.0	1016.7	23.9	13.3	18.6	-2.1	33.9	13	4.4	20	2	0	13.3	74	171	72	64	8	8	0	0	3.7	SE	11.6	NW	4	9	7	14	6.2	49
KANSAS CITY	226	982.1	1016.7	24.4	14.4	19.3	-2.2	34.4	13	5.6	20	2	0	13.9	73	186	103	57	12	6	0	0	2.7	NNE	20.6	SE	14	8	8	14	6.4	45
ST JOSEPH	247	982.5		23.9	12.8	18.2	-2.1	32.8	12	3.9	20	2	0			132	45	39	11	9	0	0	3.5	N	12.1*	NNW	4	10	8	12	5.8	
ST LOUIS	163	997.0	1017.7	24.4	13.9	19.1	-2.0	34.4	13	4.4	29	2	0	12.8	70	67	- 3	23	9	1	0	0	2.2	S	11.2	WNW	10	7	10	13	6.1	51
ST LOUIS RFC	142			24.4	15.6	19.9	-2.1	33.9	13	8.3	20	1	0			81	5	41	7		0	0										
SPRINGFIELD	386	970.0	1017.2	24.4	13.9	19.2	-2.2	32.8	14	5.6	20	3	0	15.6	84	232	135	120	13	9	0	0	3.8	SSE	16.1	S	14	8	5	17	7.0	52
MONTANA																																
BILLINGS	1087	892.0	1015.5	22.2	7.8	15.0	-0.8	32.8	6	- 0.6	9+	1	3	3.3	52	24	- 6	20	6	0	160	76	4.3	SW	16.5	W	29	16	9	5	3.8	74
GLASGOW	694	940.1		21.7	6.1	13.8	0.1	28.9	27	- 2.8	9	0	2	2.2	50	12	- 12	10	5	0	T	T						13	8	9	4.5	
GREAT FALLS	1116	889.3	1016.5	21.7	6.1	13.7	-0.7	28.9	26	0.0	8+	0	2	1.1	47	3	- 28	2	2	0	10	T	4.8	SW	18.3	SW	11	12	8	10	4.9	71
HAVRE	787	926.5		22.2	3.9	13.1	-0.3	31.7	6	- 3.3	9	0	3			19	- 7	12	3	0	T	0	3.4	E$	18.8	W	11	11	8	11	4.9	74
HELENA	1187	874.7	1017.2	21.1	4.4	12.8	-0.6	29.4	6	- 3.3	9	0	4	2.2	55	8	- 16	3	4	1	10	T	3.3	WNW	17.0	W	28	11	9	10	4.8	70
KALISPELL	904	912.3		21.7	2.8	12.2	-0.2	30.0	6	- 3.9	8	0	8			11	- 16	5	6	0	T	0	3.0					15	3	12	4.7	
MILES CITY	801			22.2	7.2	14.8	-1.3	30.6	6	- 1.1	4	0	2	4.4	55	27	3	15	6	0	T	0	3.7	NW	17.9*	WNW	29	15	10	5	3.9	
MISSOULA	972	903.2	1017.3	21.7	3.3	12.7	-0.3	30.0	6	- 2.2	9	0	6	3.3	61	23	- 3	6	9	2	T	T	2.7	WNW	16.5	N	7	14	6	10	4.5	75
NEBRASKA																																
GRAND ISLAND	561	950.9		22.2	8.9	15.7	-3.6	31.7	12	1.1	10+	0	0	10.6	76	40	- 14	17	6	6	0	0	4.2	S				10	5	15	5.8	
LINCOLN U	351			23.3	12.2	17.6	-2.5	32.2	12	3.3	20	1	0			90	17	35	9	5	0	0	4.2	S$	14.3	S	29	8	11	11	5.8	64
NORFOLK	471	961.3		22.2	8.3	15.5	-2.8	32.8	12	0.0	20	1	1			39	- 18	17	8	7	0	0						11	7	12	5.4	
NORTH PLATTE	847	917.1	1015.8	22.8	8.3	15.7	-1.9	32.8	11	- 0.6	10	1	1	8.9	68	60	18	20	8	5	0	0	4.6	S	14.3	NW	30	7	10	13	6.1	56
OMAHA	298	977.4	1017.2	23.3	11.7	17.3	-2.1	32.2	12	3.3	20	1	0	11.7	73	96	29	33	10	7	0	0	4.3	SSE	15.6	N	3	11	9	10	5.5	66
OMAHA N OMAHA AP	403	969.2		21.7	11.1	16.4	-1.9	31.7	12	3.3	20	0	0			104	40	32	9	6	0	0						7	13	10	5.6	
SCOTTSBLUFF	1204	880.2	1015.3	25.0	7.8	16.3	-0.5	33.3	11	- 3.3	9	1	2	6.1	58	1	- 29	1	2	1	T	T	4.9	SE	20.1*	NNW	30	12	9	9	4.5	
VALENTINE	789	927.0		23.9	7.8	15.7	-0.8	36.1	11	0.0	10	2	1			18	- 14	10	8	6	0	0	4.9	S$	18.8	NE	15	14	8	8	4.6	68
NEVADA																																
ELKO	1547	845.2	1014.6	27.2	2.8	15.1	0.7	32.2	18	- 2.8	9	1	4	- 5.6	28	2	- 6	2	3	1	0	0	2.9	E	12.5*	SSW	26	22	6	2	2.3	
ELY	1907	810.7	1013.5	26.7	3.3	14.9	0.8	30.6	3	- 3.3	30+	0	4	- 4.4	30	3	- 12	2	3	4	0	0	3.9	S	15.2	S	20	22	6	2	2.5	93
LAS VEGAS	659	945.1	1010.1	36.1	18.9	27.4	0.5	40.6	18	14.4	29	25	0	0.6	21	1	- 8	1	1	3	0	0	4.3	SW	14.3*	ESE	23	25	4	1	1.4	93
RENO	1342	862.5	1014.9	28.9	2.8	16.0	0.3	33.9	6+	- 1.1	30+	5	5	1.7	44	3	- 3	3	1	2	0	0	2.3	S	15.6	SW	18	25	2	3	1.8	92
WINNEMUCCA	1310	867.6		28.3	3.9	16.2	1.4	32.8	17	- 2.2	30	5	7	- 4.4	26	1	- 8	1	2	0	0	0	3.6	W	13.4	SW	10	21	4	5	2.8	95
NEW HAMPSHIRE																																
CONCORD	103	1006.3	1017.1	21.1	7.8	14.3	-0.9	29.4	10	- 2.2	22+	0	3	8.9	74	45	- 51	18	11	0	0	0	2.0	NW	11.2	E	28	7	8	15	6.4	50
MT WASHINGTON OBS	1909	807.2		5.6	0.0	2.7	-2.3	17.2	1	- 8.9	21	0	17		92	239	61	45	19	2	25	25	12.3	W	45.2 Y	SE	28	2	6	22	8.4	25
NEW JERSEY																																
ATLANTIC CITY	18	1015.4	1018.2	23.3	12.8	18.1	-1.4	30.6	14	2.8	21	0	0	12.2	71	78	- 6	49	8	0	0	0	4.0	SSW	10.3*	NE	23	10	7	13	5.6	63
ATLANTIC CITY U	3			21.7	15.6	18.6	-1.6	26.7	15+	5.6	21	0	0			75	- 11	50	9				5.7		12.5*	NE	23+					
NEWARK	3	1016.6	1018.0	22.8	13.3	18.2	-1.4	30.6	14	6.1	21	0	0	10.6	66	85	- 11	35	9	0	0	0	3.9	SW	12.5*	ENE	27	10	9	11	5.5	
TRENTON U	17	1010.3		22.2	12.8	17.5	-2.0	32.8	1	4.4	21	1	0			128	39	60	7	0	0	0	3.6	S$	15.2	W	18	10	10	10	5.8	62
NEW MEXICO																																
ALBUQUERQUE	1618	850.0	1013.6	27.8	13.9	20.8	-0.6	33.3	19+	8.3	10	5	0	8.9	53	18	- 6	9	7	3	0	0	3.4	S	21.9	W	1	13	8	9	4.8	72
CLAYTON	1515	847.3		26.1	11.1	18.7	-0.2	33.9	3	3.3	10	3	0			15	- 26	9	7	7	0	0						11	10	9	5.2	
RATON	1944	808.7		25.0	7.8	16.5	-0.1	31.1	3	- 0.6	10	0	1			51	9	39	9	8	0	0						6	10	14	6.0	
ROSWELL	1103	893.7		28.3	13.9	21.1	0.4	33.9	8	8.9	21	7	0	13.3	69	89	43	50	9	7	0	0	3.8		12.5	NW	24	14	5	11	5.1	
SILVER CITY	1638	837.5		28.3	13.9	21.0		33.3	17+	9.4	29+	3	0			74		33	10	13	0	0						12	10	8	5.0	
NEW YORK																																
ALBANY	84	1013.5	1017.3	21.1	8.9	14.8	-1.6	31.1	1	- 1.1	21	0	2	9.4	72	88	- 3	23	11	1	0	0	3.4	S	17.0	E	28	7	6	17	6.4	62

See footnotes at end of table

CLIMATOLOGICAL DATA

METRIC UNITS

State and Station	Elevation (ground)	Pressure		Temperature											Average relative humidity	Precipitation							Wind					No. of days (sunrise to sunset)			Sky cover, tenths (sunrise to sunset)	Possible sunshine
												No. of days							No. of days		Snow, Sleet				Fastest mile (1.6 kilometers)							
		Station Ø	Sea level	Average maximum	Average minimum	Average	Departure from normal	Highest	Date	Lowest	Date	Max 32.2 °C or above	Min. 0 °C or lower	Average dew point		Total	Departure from normal	Greatest in 24 hours	25 mm. or more	With thunderstorms	Total	Maximum depth on ground	Average speed	Prevailing direction	Speed	Direction	Date	Clear, 0-3	Partly cloudy, 4-7	Cloudy, 8-10		
NEW YORK	M.	Mb.	Mb.	C.	C.	C.	C.	C.		C.				C.	%	Mm.	Mm.	Mm.			Mm.	Mm.	M.p.s.		M.p.s							%
BINGHAMTON	485	958.1	1017.1	18.3	9.4	13.8	-1.7	28.3	13+	2.2	7	0	0	10.0	80	88	13	38	11	2	T	0	3.9	SSW	12.1	W	18	7	4	19	7.0	40
BUFFALO	215	988.4	1017.4	20.6	9.4	14.8	-1.6	29.4	13	1.1	21	0	0	8.3	67	80		49	14	4	0	0	4.3	WSW	14.3	SW	13	7	6	17	6.7	54
NEW YORK U	40	1005.8		22.8	13.9	18.3	-2.0	31.1	14	5.6	21	0	0	11.1	69	79	-20	37	8	0	0	0	3.7	SW$	15.6	NE	27	14	9	7	4.6	60
NEW YORK LA GUARDIA	6	1015.7	1017.7	21.7	14.4	18.2	-2.3	30.0	14	7.2	21	0	0	11.1	67	77	-23	39	8	0	0	0	4.9	S	14.3	ENE	27	9	11	10	5.6	
ROCHESTER	166	997.8	1017.2	20.6	9.4	14.9	-1.9	32.2	13	3.9	20	1	0	10.0	75	102	38	54	13	4	0	0	4.6	WSW	19.2	NE	28	8	6	16	6.5	50
SCHENECTADY	66			20.6	9.4	15.0	-1.6	30.0	1	1.1	21	0	0			62	-28	14	10	2	0	0						11	14	5	4.4	
SYRACUSE	127	994.7	1016.6	20.6	10.6	15.4	-1.5	31.1	13	3.9	21	0	0	9.4	71	51	-22	21	9	2	0	0	5.5	W	23.2	W	18	8	6	16	6.7	46
NORTH CAROLINA																																
ASHEVILLE U	671	939.6		24.4	12.8	18.6	-1.3	31.7	14	3.3	29	0	0			61	-10	26	9	3	0	0	2.9	S	11.6	N	27	10	12	8	5.5	59
CAPE HATTERAS R	2	1016.3	1017.1	26.7	18.9	22.6	-0.8	30.6	3+	10.6	30	0	0	17.8	75	222	73	121	8	6	0	0	4.6	NE	14.8	ENE	23	7	9	14	6.5	61
CHARLOTTE	224	989.9	1017.8	27.8	16.1	21.8	-0.7	34.4	13+	6.7	28	10	0	15.0	71	129	40	71	7	2	0	0	3.0	NE	8.9	NE	20+	9	10	11	5.6	67
GREENSBORO	272	986.5	1018.4	25.6	13.9	19.9	-1.3	34.4	13+	4.4	29	6	0	13.9	73	144	51	93	9	1	0	0	3.1	NE	8.9	NW	27	8	6	16	6.3	54
RALEIGH	132	1003.9	1017.7	26.1	13.9	20.1	-1.7	33.9	14+	5.0	21	4	0	15.0	78	94	-3	40	7	2	0	0	3.2	NNE	8.9*	N	20+	8	5	17	6.4	53
WILMINGTON	9	1014.8	1017.7	27.8	16.7	22.2	-1.8	32.8	11+	7.8	21	5	0	17.8	80	139	-21	54	9	3	0	0	3.8	N	11.6	NE	20	9	8	13	6.0	74
WINSTON SALEM	295	983.0	1018.4	25.6	14.4	19.9	-1.9	33.9	13+	6.7	21	6	0	12.8	68	144	53	84	8	0	0	0	3.4	ENE	11.2*	ENE	23	8	9	13	5.8	
NORTH DAKOTA																																
BISMARCK	502	955.7	1016.2	22.8	5.6	14.2	-0.6	35.6	7	0.0	22+	2	2	4.4	58	20	-10	9	8	1	0	0	3.0	S	18.8	W	29	10	13	7	5.0	73
DEVILS LAKE U	448	962.8		18.9	5.6	12.2	-1.3	30.6	2	-1.1	19	0	2			17	-26	10	4	2	0	0	3.6	SE$	14.3	NE	8	11	14	5	4.6	71
FARGO	274	982.0	1016.5	20.6	7.8	14.2	-0.7	31.7	2	-0.6	20	0	1	8.9	73	61	24	21	10	3	0	0	4.1	SSE	15.2	NW	16	8	14	8	5.5	67
WILLISTON U	579	947.8		22.2	5.0	13.7	-0.6	30.6	6	-0.6	17	0	1			11	-18	4	4		0	0	4.4	SW$	22.4	NW	29	12	6	12	5.1	73
OHIO																																
AKRON	369	979.7	1017.9	21.7	10.6	16.1	-1.4	31.1	13	3.9	20	0	0	10.0	71	97	30	22	13	5	0	0	3.8	W	17.9	N	13	7	8	15	6.3	
CINCINNATI OPS	232			24.4	12.2	18.2	-2.4	33.3	13	3.3	21	1	0			56	-13	26	11	2	0	0	2.1		8.5	NE	14					71
CINCINNATI U	169	994.7		25.0	13.3	19.1	-2.1	34.4	13	5.0	29	1	0			54	-19	0	11	2	0	0										
CLEVELAND	237	989.8	1017.5	22.2	11.1	16.7	-0.2	32.8	13	3.3	30	1	0	11.1	73	112	38	43	13	4	0	0	3.9	S	14.3	NW	13	8	9	13	6.4	54
COLUMBUS	247	988.2	1018.1	22.8	10.0	16.4	-2.7	31.1	13	-0.6	21	0	1	11.7	76	92	25	24	11	2	0	0	2.8	S	12.5	SW	14	9	7	14	6.0	60
COLUMBUS U	221			22.8	12.8	17.7	-2.3	31.7	13	3.9	21	0	0			102	43	29	11	1	0	0										
DAYTON	304	985.4	1018.0	22.8	11.1	16.9	-2.4	32.8	13	1.7	21	1	0	11.1	71	24	-41	7	9	1	0	0	3.8	NNW	15.2	NW	14	10	6	14	5.8	65
MANSFIELD	395			21.1	10.0	15.6	-1.8	29.4	13	1.1	21	0	0			96	21	28	12	4	0	0						9	10	11	5.9	
SANDUSKY U	185	995.8		22.2	12.8	17.4	-1.7	33.3	13	3.9	21	1	0			102	31	36	10	3	0	0	3.8		19.7	N	13	11	10	9	5.5	59
TOLEDO	206	992.3	1017.6	22.2	10.0	16.2	-1.2	32.8	13	-1.1	21	1	1	10.6	72	86	32	41	10	3	0	0	3.4	NNW	13.4	N	13	10	11	9	5.4	61
YOUNGSTOWN	359	975.1	1017.9	20.6	8.9	14.8	-2.4	30.6	13	2.2	21	0	0	10.0	75	76	3	22	16	2	0	0	3.9	SSW	10.3*	NNE	28	4	12	14	6.8	
OKLAHOMA																																
OKLAHOMA CITY	390	972.9	1014.6	27.2	16.7	21.9	-1.1	35.6	14	8.3	10	5	0	17.2	79	78	2	22	10	6	0	0	5.0	SSE	15.6	E	15	7	8	15	6.7	50
TULSA	206	991.8	1016.2	26.7	16.1	21.5	-2.0	35.0	14+	8.3	28	4	0	17.2	80	267	165	83	10	5	0	0	3.3	SSE	15.6	N	15	11	2	17	6.2	49
OREGON																																
ASTORIA	2	[illegible]	1015.2	19.4	10.0	14.8	0.3	30.0	17	5.6	16	0	0	11.7	83	89	9	38	9	0	0	0	3.9	W	13.9*	SW	28	6	8	16	6.7	
BURNS U	1265	[illegible]		25.6	6.1	15.8	0.9	32.2	6	-2.8	29	1	3	-1.1	37	8	-4	7	2	2	0	0						19	6	5	3.2	
EUGENE	110	1001.4		25.0	9.4	17.1	0.7	32.2	17+	3.9	9	2	0			49	17	32	3	0	0	0	3.0		11.6*	S	28	11	11	8	5.0	
MEACHAM	1234			20.6	7.2	13.9	0.8	28.9	18	-1.1	8	0	1			41	4	24	5	0	0	0						18	6	6	3.3	
MEDFORD	396	966.8	1012.1	[illegible]	7.8	18.6	0.4	37.8	17	3.9	30	10	0	7.2	57	19	4	18	3	0	0	0	2.1	WNW	8.9*	WNW	19+	18	6	6	3.2	
PENDLETON	452	961.4	1014.6	26.1	10.6	18.3	0.4	33.9	6	3.3	8	3	0	3.3	41	20	4	11	5	0	0	0	3.9	SSE	13.4*	NNE	7	20	4	6	3.3	
PORTLAND	6	1009.1	1014.6	23.9	11.1	17.4	0.6	33.9	17	5.6	9	2	0	10.0	68	42	1	21	6	0	0	0	3.0	NW	12.5	S	10	10	7	13	5.5	53
PORTLAND U	9			23.3	13.3	18.3	0.3	32.8	4	10.6	23+	1	0			42	-2	24	5		0	0										
ROSEBURG	154	[illegible]		[illegible]	9.4	18.1	1.0	37.2	17	5.6	12+	6	0			13	-12	8	4	0	0	0	2.1	N$	8.9	S	28	12	11	7	4.6	73
SALEM	59	[illegible]	1015.0	25.0	8.9	[illegible]	0.0	35.0	17	5.0	23+	3	0	9.4	68	39	4	27	6	0	0	0	3.2	S	11.2*	S	28	11	6	13	5.2	
SEXTON SUMMIT R	1169	883.8		21.7	10.6	[illegible]	1.1	31.1	17	4.4	29+	0	0			43	11	26	6	0	0	0	4.5	N				20	4	6	2.8	
PACIFIC AREA																																
CANTON ISLAND	2	[illegible]	[illegible]	31.1	25.6	[illegible]	[illegible]	32.8	3	22.2	11	1	0	22.2	73	64	32	43	11	1	0	0	6.4	E	[illegible]	E	16	11	12	7	4.9	
ENIWETOK	5	[illegible]		31.1	[illegible]	28.1	-0.4	32.2	22+	22.8	27+	6	0			285	127	96	23	1	0	0	4.0									
TAGUAC GUAM R	110			[illegible]	22.8	26.2	-0.1	31.7	15	21.1	16+	0	0			555	216	122	26	7	0	0	1.9	E	[illegible]	SW	30					53
KOROR R	29	[illegible]	[illegible]	30.6	[illegible]	[illegible]	[illegible]	[illegible]	1	22.8	27+	1	0	24.4	87	528	164	73	28	4	0	0	2.9	W	11.6	NW	26	0	0	30	9.8	48
MAJURO	3	[illegible]	[illegible]	29.4	[illegible]	[illegible]	[illegible]	31.1	21	22.8	27+	0	0	[illegible]	79	534	228	126	27	3	0	0	3.8	NE	[illegible]	E	18	0	5	25	9.0	50
PONAPE R	37	[illegible]	[illegible]	[illegible]	22.8	[illegible]	0.1	32.8	18	21.1	21	2	0	23.9	89	582	18	145	28	3	0	0	1.2	ENE	7.6	E	23	0	2	28	9.4	42
TRUK MOEN ISLAND	2	[illegible]	[illegible]	[illegible]	23.9	27.1	[illegible]	31.7	21+	22.8	30+	0	0	23.9	85	372	52	116	22	0	0	0	2.0	SE	16.5	NW	30	0	3	27	[illegible]	12
WAKE ISLAND	3	[illegible]	[illegible]	31.1	25.0	[illegible]	-0.2	32.2	8+	21.1	17	2	0	23.9	79	160	27	39	19	1	0	0	5.5	E	12.5*	ENE	31	4	[illegible]	17	7.3	
YAP R	17	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	-0.4	32.8	11	22.8	12	3	0	24.4	86	311	-49	58	27	[illegible]	0	0	4.2	SW	13.9	W	30	0	0	30	9.9	40

See footnotes at end of table

CLIMATOLOGICAL DATA

METRIC UNITS

State and Station	Elevation (ground)	Pressure Station	Pressure Sea level	Temperature Average maximum	Temperature Average minimum	Temperature Average	Temperature Departure from normal	Temperature Highest	Date	Lowest	Date	No. of days Max 32.2 °C or above	No. of days Min 0 C or lower	Average dew point	Average relative humidity	Precipitation Total	Departure from normal	Greatest in 24 hours	No. of days 25 mm or more	No. of days With thunderstorms	Snow, sleet Total	Maximum depth on ground	Wind Average speed	Prevailing direction	Fastest mile (1.6 kilometers) Speed	Direction	Date	No. of days (sunrise to sunset) Clear, 0-3	Partly cloudy 4-7	Cloudy 8-10	Sky cover tenths (sunrise to sunset)	Possible sunshine
PENNSYLVANIA	M	Mb	Mb	C	C	C	C	C		C				C.	%	Mm	Mm	Mm			Mm	Mm	Mps		Mps							%
ALLENTOWN	115	1004.[illegible]	1018.3	21.1	10.6	15.8	-1.4	31.1	1	2.2	21	0	0	11.7	78	1[illegible]	13	33	11	2	0	0	4.5	SW	13.4*	W	18+	11	7	12	5.7	
ERIE	223	991.[illegible]	1017.2	20.0	11.7	15.9	-1.5	31.1	13	5.0	7	0	0	10.6	71	125	25	54	14	5	0	0	4.7	S	13.0*	NE	28+	6	6	16	6.5	
HARRISBURG	102	1003.9	1017.9	22.8	11.7	17.1	-2.0	31.1	13+	2.8	21	0	0	12.2	77	91	[illegible]	41	11	1	0	0	2.8	WNW	12.5	SW	10	9	6	15	6.2	53
PHILADELPHIA	2	1013.2	1017.8	22.8	11.7	17.2	-2.0	31.7	1	3.9	22	0	0	11.7	72	7	18	43	[illegible]	0	0	0	3.4	ENE	10.3	E	27+	9	7	14	5.8	56
PHILADELPHIA I	11			23.3	14.4	18.7	-2.0	33.3	1	6.1	21	1	0			[illegible]																
PITTSBURGH	356	987.9	1018.7	20.6	8.9	14.8	-3.1	29.4	1	0.6	23	0	0	10.6	76	119	55	41	1[illegible]	6	[illegible]	0	3.1	WSW	9.4*	W	11	6	7	17	6.7	54
PITTSBURGH J	228			21.7	12.2	17.1	-2.6	30.6	13	5.6	21	0	0			160	[illegible]	[illegible]	11		[illegible]	0										43
READING U	81	1005.7	1017.6	22.2	12.8	17.6	-2.1	33.3	1	3.9	21	1	0			112	27	43	12	1	0	0	3.7	WSW	13.9	W	18	12	4	14	5.7	53
SCRANTON	287	983.9	1018.1	20.6	10.0	15.3	-1.1	30.6	1	0.6	21	0	0	10.0	72	80	4	45	11	2	0	0	3.4	SW	9.4	SW	18	9	4	17	6.5	46
WILLIAMSPORT	161	998.9	1018.1	20.6	9.4	15.2	-2.7	28.9	13+	2.2	22	0	0	10.6	77	83	-1	44	12	1	0	0	3.0	W	9.8*	ESE	28	6	9	15	6.9	
RHODE ISLAND																																
BLOCK ISLAND	34	1012.6	1017.0	20.0	13.9	16.8	-0.9	25.0	11+	7.2	21	0	0			108	26	64	9	0	0	0						7	13	10	5.8	
PROVIDENCE	17	1011.2	1017.3	21.1	10.6	16.0	-1.3	28.9	14	1.1	22	0	0	10.6	73	93	4	58	10	0	0	0	4.5	WSW	12.5*	NNE	28	9	10	11	5.7	59
SOUTH CAROLINA																																
CHARLESTON	12	1014.8	1016.9	28.9	17.8	23.3	-0.9	33.3	12	10.0	28	3	0	18.3	78	97	-51	31	9	6	0	0	3.2	NNE	20.6Y	W	17	5	11	14	6.5	55
CHARLESTON J	3			27.8	20.6	24.0	-1.1	31.7	12+	13.3	28	0	0			86	-74	37	10	0	0	0	4.2		13.9	NE	21					
COLUMBIA	66	1004.5	1017.1	29.4	16.7	23.3	-0.8	36.1	4+	7.2	29	13	0	16.7	72	72	-37	50	6	4	0	0	3.1	NE	9.4*	ENE	21	8	14	8	5.6	58
FLORENCE	45	1011.4	1017.2	28.9	16.7	22.7	-1.2	35.6	11	7.2	21	11	0	16.7	74	90	-14	64	10	7	0	0	3.4	NE	10.3*	NE	20	9	9	12	5.8	
GREENVILLE	308	980.5	1017.5	28.3	16.1	22.2	-1.1	36.1	3	7.8	28	10	0	15.6	70	58	-40	31	8	1	0	0	2.7	ENE	8.0	N	27	11	6	13	5.6	59
SPARTANBURG	244	988.1		26.7	15.6	21.1	-1.4	33.9	11+	7.8	29	8	0			118	19	61	8	3	0	0	3.1		10.3*	NNW	27+	9	8	13	5.8	
SOUTH DAKOTA																																
HURON	391	969.2	1016.5	22.2	6.7	14.3	-2.6	30.0	11	-1.7	20	0	3	9.4	77	52	13	29	5	5	0	0	4.3	SSE	26.8	W	2	15	9	6	4.0	71
RAPID CITY	965	902.4	1015.9	23.9	7.8	15.7	-0.7	33.9	11	-2.2	10	2	2	3.9	52	17	-7	12	6	2	T	0	5.0	NNW	17.9	N	8	15	6	9	4.4	62
SIOUX FALLS	433	965.4	1017.0	21.7	8.3	15.2	-1.3	29.4	7	0.0	20	0	1	9.4	72	91	25	35	6	5	0	0	4.2	SSE	13.0*	WNW	2	14	10	6	4.1	
TENNESSEE																																
BRISTOL	459	963.8	1018.0	25.6	13.9	19.6	-0.7	33.3	13	5.0	21	3	0	13.3	72	157	91	75	7	4	0	0	2.0	WNW	8.9*	WNW	17+	6	11	13	6.2	
CHATTANOOGA	204	801.2	1017.6	28.3	16.7	22.3	-0.1	36.1	3	5.0	29	7	0	15.6	71	88	10	47	8	3	0	0	2.8	S	10.7	W	27	9	10	11	5.9	62
KNOXVILLE	290	982.9	1018.1	27.2	16.1	21.6	-0.7	35.6	3	6.1	29	6	0	14.4	67	130	66	62	9	4	0	0	2.8	NE	15.2	W	4	5	8	17	6.7	54
MEMPHIS	80	1002.3	1016.9	27.8	18.3	23.0	-0.6	34.4	13	7.8	29	4	0	17.8	75	134	62	41	10	5	0	0	3.6	E	8.9	NE	20+	7	12	11	6.2	59
MEMPHIS U	83			26.7	18.9	22.7	-1.2	33.3	13+	10.0	21	3	0			131	60	27	10		0	0										
NASHVILLE	176	997.3	1017.3	26.7	15.0	20.7	-1.9	35.0	3	5.6	29	4	0	16.1	78	204	131	129	10	5	0	0	2.5	S	13.4	W	9	7	7	16	6.3	52
OAK RIDGE	276	985.6		25.6	14.4	20.2	-1.5	33.3	3	4.4	29	2	0			163	79	87	9	4	0	0	1.6		13.0Y			9	9	12	5.9	
TEXAS																																
ABILENE	536	954.1	1014.4	30.0	18.3	24.0	-0.4	34.4	14+	11.7	27	11	0	17.2	72	130	77	40	9	4	0	0	3.2	SSE	14.8	NE	17	11	9	10	5.5	70
AMARILLO	1099	890.2	1014.0	27.8	15.0	21.3	0.1	35.6	14	7.2	10	6	0	13.9	70	68	20	35	7	4	0	0	5.4	SSW	14.3	SW	1	11	10	9	5.2	62
AUSTIN	182	992.9	1014.6	32.2	21.1	26.5	0.3	36.1	3+	15.6	28	17	0	20.0	71	121	33	27	9	9	0	0	3.0	S	14.8	NE	16	9	13	8	5.4	59
BROWNSVILLE	5	1010.7	1013.3	33.3	23.9	28.5	1.2	35.0	26+	18.3	28	25	0	22.8	75	50	-76	29	13	2	0	0	4.7	ESE	11.6	SE	7	8	18	4	5.4	67
CORPUS CHRISTI	13	1012.9	1014.0	32.8	23.3	28.2	1.1	35.6	1	18.3	27	24	0	22.8	75	136	25	44	14	6	0	0	4.6	SE	16.1	NE	17	10	13	7	5.5	61
DALLAS	147	997.2	1015.5	30.0	20.0	25.2	-0.3	35.0	14+	13.3	27	8	0	18.9	70	159	88	71	9	6	0	0	4.7	SSE	11.6	NE	30	8	12	10	5.6	65
DEL RIO U	292			33.9	22.8	28.1	1.6	39.4	8	14.4	28	26	0			53	-10	37	4	4	0	0										
EL PASO	1194	886.6	1012.2	28.9	17.8	23.3	-0.6	33.9	17	11.7	30	6	0	13.3	58	90	61	43	9	5	0	0	2.9	N	20.1	NW	7	13	7	10	4.9	67
FORT WORTH	166	994.9	1015.4	30.6	20.0	25.1	-0.7	36.1	4	13.3	27	8	0	18.9	72	96	32	38	8	5	0	0	4.4	ESE	17.4	N	30	9	12	9	5.5	
GALVESTON U	2			30.0	25.0	27.6	0.9	34.4	16	20.0	28+	3	0			40	-89	12	6		0	0	4.6		12.1	SE	8+					84
GALVESTON	2	1012.9	1015.1	31.1	25.0	28.0	1.2	33.9	16	20.6	28+	15	0	20.0	64	108	-38	44	8	8	0	0	4.2	SE				11	11	8	4.8	
HOUSTON U	12			32.2	23.9	28.0	1.4	36.1	16	18.3	28+	22	0			74	-22	23	9		0	0										
HOUSTON	15	1011.9	1014.6	32.2	22.2	27.4	0.9	35.6	16	16.1	28	21	0	22.8	82	101	-7	28	9	10	0	0	3.4	SSE				9	10	11	5.7	70
LAREDO	152	997.7	1012.9	35.6	23.3	29.5	1.3	38.9	17+	16.1	28	27	0	20.0	63	91	19	49	9	5	0	0	5.1	SE	13.9*	ESE	5	13	11	6	4.5	
LUBBOCK	988	904.3	1014.5	27.2	15.6	21.6	-0.3	34.4	13	8.3	10	4	0	16.1	76	106	46	32	12	6	0	0	4.9	SE	16.5*	W	15	11	9	10	5.2	
MIDLAND	870	915.7	1013.0	30.0	17.2	23.6	-0.5	36.1	15+	11.1	10	12	0	15.6	66	103	58	55	7	3	0	0	4.2	SSE	10.7*	NNE	4	11	12	7	4.5	
PORT ARTHUR	5	1013.3	1014.8	32.2	21.7	26.9	1.5	35.0	16	15.0	28+	19	0	22.2	81	133	9	46	10	9	0	0	3.0	NE	19.2	SW	8	6	17	7	5.6	63
SAN ANGELO	580	947.3	1013.2	32.8	19.4	26.1	0.3	38.3	8	12.2	28	19	0	16.7	62	47	-21	19	6	3	0	0	3.4	SSE	10.3*	NNE	17+	14	9	7	4.4	
SAN ANTONIO	241	989.5	1012.6	32.8	21.7	27.2	1.3	36.1	16+	14.4	28	23	0	19.4	68	68	-20	32	8	7	0	0	3.7	SSE	11.6	E	6	8	14	8	5.1	64
VICTORIA	32	1009.6		32.2	22.2	27.4	1.2	35.6	1	16.7	28	21	0			148	40	91	10	9	0	0	3.8		13.4*		17+	8	15	7	5.3	
WACO	152	994.0	1014.8	32.8	21.1	26.9	0.8	36.7	4	13.9	28+	22	0	18.9	65	100	29	54	6	5	0	0	4.7	SSE	19.7	S	6	13	7	10	5.0	
WICHITA FALLS	303	978.3	1014.8	28.9	17.8	23.2	-1.7	36.7	20	10.0	10	7	0	18.3	79	134	74	51	10	5	0	0	4.1	S	13.0*	SSE	17	10	8	12	5.8	
UTAH																																
MILFORD	1533	844.9		29.4	6.1	17.8	0.6	35.0	18	-1.7	9	8	1			31	20	28	5	5	0	0						23	5	2	2.2	

See footnotes at end of table

CLIMATOLOGICAL DATA

METRIC UNITS

State and Station	Elevation (ground)	Pressure		Temperature											Average relative humidity	Precipitation							Wind					No. of days (sunrise to sunset)			Sky cover, tenths (sunrise to sunset)	Possible sunshine
												No. of days							No. of days		Snow, Sleet				Fastest mile (1.6 kilometers)							
		Station Ø	Sea level	Average maximum	Average minimum	Average	Departure from normal	Highest	Date	Lowest	Date	Max 32.2 °C or above	Min. 0 C or lower	Average dew point		Total	Departure from normal	Greatest in 24 hours	.25 mm. or more	With thunderstorms	Total	Maximum depth on ground	Average speed	Prevailing direction	Speed	Direction	Date	Clear, 0-3	Partly cloudy, 4-7	Cloudy, 8-10		
UTAH	M.	Mb.	Mb.	C.	C.	C.	C.	C.		C.				C.	%	Mm.	Mm.	Mm.			Mm.	Mm.	M.p.s.		M.p.s							%
SALT LAKE CITY	1286	867.9	1013.9	28.3	9.4	18.8	0.5	33.3	19	1.1	9	3	0	1.7	36	7	- 7	4	4	5	0	0	4.3	SSE	14.3	S	20	26	4	0	1.9	91
WENDOVER	1291	870.3		27.2	12.2	19.9	0.7	32.2	20+	5.6	9	2	0			2	- 7	2	1	2	0	0						24	6	0	1.7	
VERMONT																																
BURLINGTON	101	1001.8	1016.5	18.9	7.2	13.2	-2.3	28.9	1	- 1.1	21	0	2	8.3	73	90	6	30	12	3	0	0	3.1	S	9.8	SW	1	6	8	16	7.0	48
VIRGINIA																																
LYNCHBURG	289	993.6		23.9	12.8	18.3	-2.1	32.8	2+	5.0	22+	3	0			62	- 23	35	8	0	0	0	3.2		11.2	NE	23	10	8	12	6.0	57
NORFOLK	8	1016.8	1017.9	25.0	16.1	20.6	-1.9	33.9	2	9.4	30+	4	0	15.6	74	78	- 29	51	6	2	0	0	4.5	SW	15.6	NE	23	10	6	14	6.0	58
RICHMOND	49	1011.9	1018.1	25.6	12.8	19.0	-2.2	33.9	2+	4.4	22	3	0	13.9	76	88	- 5	40	10	0	0	0	3.0	NNE	10.3	N	6	10	7	13	6.0	59
ROANOKE	358	976.5	1018.7	23.9	12.2	18.2	-2.4	33.9	13+	3.3	21	3	0	12.2	71	93	10	46	9	2	0	0	3.2	SE	10.3	WSW	14	9	6	15	6.1	
WASHINGTON																																
OLYMPIA	58	1008.5	1013.6	21.7	7.8	14.6	-0.1	30.6	5	2.2	8	0	0	9.4	75	62	9	23	8	0	0	0	2.6	SW	10.3*	SSW	28	6	11	13	6.4	
SEATTLE TACOMA	122	1001.4	1015.3	20.6	10.0	15.3	0.4	28.9	5	6.7	12	0	0	10.0	77	59	7	23	8	0	0	0	3.6	N	15.6*	SSW	10	8	11	11	5.9	
SEATTLE	4		1015.1											10.0	69	0		0					2.7	SSE								
SEATTLE U	4			21.1	12.2	16.8	0.6	27.8	4	10.6	12	0	0			51	9	22	8		0	0			18.3	SW	10					54
SPOKANE	718	946.2	1014.5	23.9	8.3	15.9	0.4	30.6	5	1.1	8	0	0	2.8	47	23	4	17	4	0	0	0	3.7	NE	12.1	SW	28	17	8	5	3.7	87
STAMPEDE PA R	1206	880.5		16.1	6.7	11.4	0.4	24.4	5	1.1	28	0	0			99	- 13	42	11	0	23	T						10	9	11	5.1	
TATOOSH ISLAND	31	1012.2	1015.3	15.0	9.4	12.2	-0.4	20.0	4	7.2	17+	0	0	10.0	86	93	3	50	10	0	0	0	6.3	ENE	25.0	S	28	6	9	15	6.7	51
WALLA WALLA U	289	977.7		25.6	12.2	18.8	-0.1	32.2	6+	5.0	8	2	0			37	17	23	4	1	0	0	1.8	E$	8.5	N	7	15	8	7	4.2	79
YAKIMA	323	975.3	1014.0	26.7	6.7	16.6	0.3	33.9	6	1.1	9	2	0	5.0	53	8	- 1	7	3	0	0	0	3.1	W	11.2*	NE	7	18	6	6	3.3	
WEST INDIES																																
SAN JUAN P.R.	5	1012.1	1015.0	31.1	23.3	27.2	0.3	32.2	25+	21.7	4+	6	0	22.8	80	123	- 49	43	19	5	0	0	2.8	ENE	11.2	E	29	2	16	12	6.7	54
SWAN ISLAND	9	1010.3		30.6	25.6	28.1	-0.3	32.2	5+	22.8	18	2	0			150	18	53	19	11	0	0						2	8	20	7.8	
WEST VIRGINIA																																
CHARLESTON	286	982.5	1017.9	23.9	12.8	18.3	-1.5	33.9	13	1.7	21	1	0	13.9	79	93	19	28	14	3	0	0	2.2	SW	7.2*	NNW	5+	6	8	16	6.9	
ELKINS	600	944.5	1018.8	21.1	8.3	14.8		28.9	13	0.0	21	0	1	11.1	82	96		19	15	3	0	0	2.4	WSW	9.8*	N	2	4	6	20	7.6	
HUNTINGTON U	252	987.9	1018.1	23.9	11.7	17.7	-3.3	33.9	13	2.2	21	1	0	13.3	80	64	- 10	26	12	2	0	0	2.5	SSW	9.4	NNW	14	7	7	16	6.8	
PARKERSBURG U	187			23.3	12.2	17.7	-2.3	32.8	13	2.2	21	1	0			136	68	54	13	5	0	0	2.5		16.5	SW	14					50
WISCONSIN																																
GREEN BAY	208	994.6	1017.3	20.6	8.3	14.4	-0.8	28.3	12+	1.1	29	0	0	10.0	77	98	24	29	11	4	0	0	2.7	SW	14.8	SW	10	10	11	9	5.6	49
LA CROSSE	199	990.9		21.0	9.4	14.9	-1.9	28.9	12	1.7	20	0	0	10.0	77	61	- 27	17	8	4	0	0	4.0	S	12.1*	NW	17	7	11	12	6.3	
MADISON	262	982.5	1017.8	21.1	6.7	13.9	-2.2	30.6	12	- 1.1	29+	0	3	9.4	75	33	- 51	14	10	2	0	0	3.5	N	14.3	SW	10	9	8	13	5.8	56
MILWAUKEE	205	992.9	1017.9	20.6	8.3	14.4	-1.3	30.6	12	0.6	21	0	0	9.4	73	38	- 31	17	8	2	0	0	4.2	SSW	15.6	W	10	11	9	10	5.0	67
WYOMING																																
CASPER	1621	838.8	1015.0	23.3	6.1	14.7	-0.7	28.9	15+	- 1.7	9+	0	2	0.0	46	29	6	28	4	2	5	T	4.8	WSW	[illegible]	N	7	19	6	5	3.5	
CHEYENNE	1867	815.4	1015.1	23.3	6.7	14.9	0.4	30.0	12+	- 5.6	9	0	2	2.2	51	33	5	25	3	3	T	T	5.2	WNW	18.8	NW	30+	14	6	10	4.6	68
LANDER	1696	826.4	1014.4	23.9	6.7	15.2	0.2	31.1	2	- 3.3	9	0	3	1.1	44	14	- 12	9	3	3	61	25	4.3	SW	13.4	W	12	15	7	4	3.2	87
SHERIDAN	1202	885.9	1011.8	21.7	5.6	13.7	-1.2	30.0	6	- 1.7	8	0	3	4.4	59	36	7	25	7	[illegible]	58	51	2.6	NW	18.8	NW	30	15	11	4	3.9	76

Data from airport unless otherwise specified. U indicates Urban, R indicates Rural, sites.
* Value entered in column headed "Fastest Mile" is the highest observed wind speed. This station is not equipped with an automatic recording wind instrument.
A Maximum hourly average.
+ And also on an earlier date or dates.
Ø Station pressures apply to elevations shown in the "Elevations - Station Pressure" table of the annual issue of this publication.
B Number of days maximum 21.1 C. or above for Alaskan Stations.
$ Wind direction to 8 compass points only.
Y Peak Gust.

Data in this table is obtained by conversion from data in the English Units table.

HEATING DEGREE DAYS

(Base 65°F.)

SEPTEMBER 1962

State and station	Current season: This month	Current season: Period July through this month	Normals July through this month
ALABAMA			
Birmingham	9	9	18
Huntsville	20	20	12
Mobile	0	0	0
Montgomery	0	0	0
ALASKA			
Anchorage	578	1024	1052
Annette	286	636	822
Barrow	1037	2486	2678
Barter Island	999	2505	2497
Bethel	686	1246	1325
Cold Bay	536	1346	1424
Cordova	537	1227	1279
Fairbanks	696	1005	1145
Juneau	486	1041	1122
King Salmon	597	1160	1148
Kotzebue	765	1406	1550
McGrath	718	1135	1179
Nome	759	1461	1670
St. Paul	681	1778	1756
Shemya	529	1534	1553
Yakutat	507	1176	1159
ARIZONA			
Flagstaff	184	254	297
Phoenix (U)	0	0	
Phoenix	0	0	0
Prescott	12	12	27
Tucson	0	0	0
Winslow	15	15	0
Yuma	0	0	0
ARKANSAS			
Ft. Smith	10	10	12
Little Rock	17	17	9
Texarkana	0	0	0
CALIFORNIA			
Bakersfield	0	0	0
Bishop	11	13	48
Blue Canyon	75	150	173
Burbank	0	0	6
Eureka (U)	229	787	785
Fresno	0	0	0
Long Beach	0	0	9
Los Angeles (U)	0	0	6
Los Angeles	0	2	92
Mt. Shasta (R)	95	164	182
Oakland	86	218	148
Point Arguello (R)	225	667	550
Red Bluff	10	10	0
Sacramento (U)	3	3	0
Sacramento	0	0	0
Sandberg (R)	24	29	30
San Diego	1	1	30
San Francisco (U)	196	623	468
San Francisco	120	320	219
San Jose (U)	12	20	
Santa Maria	131	358	288
COLORADO			
Alamosa	299	467	443
Colorado Springs	124	141	191
Denver	112	131	114
Grand Junction	39	39	30
Pueblo	51	51	54
CONNECTICUT			
Bridgeport	125	138	66
Hartford	279	302	129
Middletown	215	286	
New Haven	132	151	99
DELAWARE			
Wilmington	113	117	51
DIST. OF COLUMBIA			
Washington (U)	79	79	
Washington	59	59	33
FLORIDA			
Apalachicola (U)	0	0	0
Daytona Beach	0	0	0
Fort Myers	0	0	0
Jacksonville	0	0	0
Key West	0	0	0
Lakeland (U)	0	0	0
Miami	0	0	0
Miami Beach	0	0	0
Orlando	0	0	0
Pensacola (U)	0	0	0
Tallahassee	6	6	0
Tampa	0	0	0
West Palm Beach	0	0	0
GEORGIA			
Athens	31	31	12
Atlanta	40	40	18
Augusta	16	16	0
Columbus	8	8	0
Macon	7	7	0
Rome	33	33	24
Savannah	5	5	0
Thomasville (U)	2	2	0
IDAHO			
Boise	[illegible]	[illegible]	120
Idaho Falls [illegible]	[illegible]	245	320
IDAHO (Cont'd.)			
Idaho Falls 42NW(R)	268	385	338
Lewiston	93	139	123
Pocatello	134	194	180
ILLINOIS			
Cairo (U)	30	30	36
Chicago (Midway)	112	114	75
Chicago (O'Hare)	179	186	
Moline	149	158	108
Peoria	137	141	93
Rockford	179	194	129
Springfield	90	94	72
INDIANA			
Evansville	92	92	66
Ft. Wayne	160	169	114
Indianapolis	142	147	90
South Bend	181	199	117
IOWA			
Burlington	118	120	93
Des Moines	110	110	102
Dubuque	214	239	199
Sioux City	160	166	135
Waterloo	207	230	160
KANSAS			
Concordia	109	109	54
Dodge City	72	72	33
Goodland	120	122	87
Topeka	92	92	57
Wichita	40	40	33
KENTUCKY			
Lexington	94	94	54
Louisville	95	95	63
LOUISIANA			
Alexandria	0	0	
Baton Rouge	0	0	0
Lake Charles	0	0	0
New Orleans (Audubon Park)	0	0	
New Orleans	0	0	0
Shreveport	0	0	0
MAINE			
Caribou	400	666	529
Greenville (U)	377	673	
Portland	272	392	260
MARYLAND			
Baltimore (U)	51	51	27
Baltimore	102	102	48
Frederick	135	139	66
MASSACHUSETTS			
Blue Hill Obs. (R)	169	228	130
Boston	105	124	69
Nantucket	117	177	149
Pittsfield	299	432	303
Worcester	217	300	187
MICHIGAN			
Alpena	326	480	377
Detroit (City AP)	162	163	93
Detroit(M.Wayne Co.)	177	195	117
Detroit(Willow Run)	167	171	90
Escanaba (U)	287	402	389
Flint	233	284	172
Grand Rapids	184	201	172
Lansing	209	238	166
Marquette (U)	318	510	380
Muskegon	205	225	212
S. Ste. Marie	335	514	521
MINNESOTA			
Duluth	388	641	479
Internat. Falls	388	551	546
Minneapolis	262	304	233
Rochester	261	311	245
St. Cloud	271	322	300
MISSISSIPPI			
Jackson	0	0	0
Meridian	2	2	0
Vicksburg (U)	0	0	0
MISSOURI			
Columbia	83	83	54
Kansas City	62	62	39
St. Joseph	100	100	66
St. Louis (RFC)	39	39	36
St. Louis	62	62	51
Springfield	74	74	45
MONTANA			
Billings	187	237	223
Butte	414	784	
Glasgow	243	309	348
Great Falls	250	362	318
Havre	281	371	372
Helena	295	430	384
Kalispell	326	565	485
Miles City	205	254	186
Missoula	298	485	411
NEBRASKA			
Grand Island	168	178	87
Lincoln (U)	109	109	81
Norfolk	187	195	120
North Platte	171	178	129
Omaha	117	117	96
Omaha N. Omaha AP	149	149	139
Scottsbluff	133	168	138
Valentine	169	193	186
NEVADA			
Elko	169	255	268
Ely	177	255	305
Las Vegas	0	0	0
Reno	127	244	285
Tonopah	63	66	
Winnemucca	141	195	244
NEW HAMPSHIRE			
Concord	234	295	233
Mt. Washington Obs. (R)	839	1982	1749
NEW JERSEY			
Atlantic City	83	85	39
Atlantic City (U)	61	61	
Newark	81	88	39
Trenton (U)	102	111	57
NEW MEXICO			
Albuquerque	22	22	12
Clayton	67	67	72
Raton	108	119	163
Roswell	8	8	21
Silver City	9	9	
NEW YORK			
Albany	207	236	157
Binghamton	261	321	257
Buffalo	213	248	197
New York (U)	78	89	30
New York (LaGuardia)	80	87	27
Rochester	209	240	166
Schenectady	200	224	
Syracuse	185	207	166
NORTH CAROLINA			
Asheville (U)	91	91	48
Cape Hatteras (R)	4	4	0
Charlotte	36	36	12
Greensboro	75	75	33
Raleigh	61	61	21
Wilmington	22	22	0
Winston-Salem	69	69	21
NORTH DAKOTA			
Bismarck	228	278	272
Devils Lake (U)	322	388	366
Fargo	232	248	284
Grand Forks CAA	319	371	
Pembina	306	359	
Williston (U)	249	338	317
OHIO			
Akron	165	186	124
Cincinnati (U)	78	78	
Cincinnati	129	131	66
Cincinnati Obs.	102	104	54
Cleveland	151	178	157
Columbus	165	176	78
Columbus (U)	123	125	
Dayton	152	161	84
Mansfield	189	209	145
Sandusky (U)	117	121	72
Toledo	169	172	133
Youngstown	222	263	133
OKLAHOMA			
Oklahoma City	19	19	15
Tulsa	21	21	9
OREGON			
Astoria	190	526	514
Burns (U)	141	297	259
Eugene	80	196	197
Meacham	248	640	496
Medford	57	81	72
Pendleton	67	98	111
Portland (U)	51	118	103
Portland	71	144	167
Roseburg	60	99	143
Salem	86	226	167
Sexton Summit (R)	163	451	351
PENNSYLVANIA			
Allentown	174	182	90
Erie	173	207	127
Harrisburg	126	129	63
Philadelphia (U)	70	77	
Philadelphia	109	113	60
Pittsburgh (U)	142	142	60
Pittsburgh	216	239	114
Reading (U)	114	118	54
Scranton	199	212	181
Williamsport	200	208	120
RHODE ISLAND			
Block Island	106	128	94
Providence	152	178	112
SOUTH CAROLINA			
Charleston (U)	1	1	0
Charleston	8	8	0
Columbia	14	14	0
Florence	21	21	0
Greenville	25	25	0
Spartanburg	41	41	15
SOUTH DAKOTA			
Huron	225	258	177
Pierre	147	160	
Rapid City	165	205	199
Sioux Falls	191	214	212
TENNESSEE			
Bristol	71	72	60
Chattanooga	26	26	24
Knoxville	32	32	30
Memphis (U)	12	12	12
Memphis	14	14	15
Nashville	43	43	30
Oak Ridge	58	58	39
TEXAS			
Abilene	2	2	0
Amarillo	23	23	30
Austin	0	0	0
Brownsville	0	0	0
Corpus Christi	0	0	0
Dallas	0	0	0
Del Rio (U)	0	0	
El Paso	0	0	0
Ft. Worth	0	0	0
Galveston (U)	0	0	0
Galveston	0	0	0
Houston (U)	0	0	0
Houston	0	0	0
Laredo	0	0	0
Lubbock	18	18	18
Midland	2	2	0
Port Arthur	0	0	0
San Angelo	0	0	0
San Antonio	0	0	0
Victoria	0	0	0
Waco	0	0	0
Wichita Falls	2	2	0
UTAH			
Milford	67	83	99
Salt Lake City	59	79	75
Wendover	35	37	48
VERMONT			
Burlington	296	421	230
VIRGINIA			
Lynchburg	105	106	51
Norfolk	37	37	0
Richmond	73	73	36
Roanoke	100	100	51
WASHINGTON			
Olympia	194	437	337
Seattle (U)	90	198	226
Seattle	86	189	221
Seattle-Tacoma	158	353	341
Spokane	159	284	242
Stampede Pass (R)	368	1060	957
Tatoosh Island (R)	322	925	880
Walla Walla	64	92	
Walla Walla (U)	59	79	87
Yakima	120	210	156
WEST VIRGINIA			
Charleston	114	117	66
Huntington (U)	123	130	42
Parkersburg (U)	120	120	60
WISCONSIN			
Green Bay	221	263	291
La Crosse	208	230	184
Madison	252	286	239
Milwaukee	227	273	264
WYOMING			
Casper	194	270	214
Cheyenne	187	284	284
Lander	179	256	229
Sheridan	245	352	275

Data form airport unless otherwise specified.
U indicates Urban, R indicates Rural, sites.

STORM SUMMARY

STATE	TORNADOES					HAILSTORMS				WINDSTORMS				LIGHTNING				‡ HEAVY SNOWSTORMS AND BLIZZARDS				# ICE STORMS				ø ALL OTHER			
	NUMBER	DAYS	DEATHS	INJURIES	†DAMAGE	DEATHS	INJURIES	†DAMAGE		DEATHS	INJURIES	†DAMAGE		DEATHS	INJURIES	†DAMAGE		DEATHS	INJURIES	†DAMAGE		DEATHS	INJURIES	DAMAGE		DEATHS	INJURIES	†DAMAGE	
								PROP-ERTY	CROPS			PROP-ERTY	CROPS			PROP-ERTY	CROPS			PROP-ERTY	CROPS			PROP-ERTY	CROPS			PROP-ERTY	CROPS
Alabama *																													
Alaska										0	0	4	0																
Arizona										0	0	5	0	1	0	1	0									0	0	6	4
Arkansas	1	1	0	0	3																								
California *																													
Colorado	1	1	0	0	0	0	0	5	5	0	2	4	0																
Connecticut										0	0	5	0																
Delaware *																													
Florida	2	2	0	0	2									1	1	0	0									0	0	°6	C
Georgia *																													
Hawaii *																													
Idaho									4						1														
Illinois *																													
Indiana	1	1	0	0	4																								
Iowa *																													
Kansas							1	6	6		4	6																	
Kentucky						0	0	3	4	0	0	3	3																
Louisiana	6	3	0	0	0					0	0	?	?	1	0	4	0												
Maine										0	1	5	0													0	0	5	0
Maryland *																													
Massachusetts										0	1	5	0													0	0	5	0
Michigan						0	0	4	4	0	11	6	4	0	1	5	0												
Minnesota	2	1	0	33	5					0	0	4	0	1	0		0												
Mississippi						0	0	?	?	0	0	4	?													0	0	?	?
Missouri						0	0	5	5	0	0	4	4	0	1	5													
Montana														0	0	5	0												
Nebraska						0	0	3	4																				
Nevada *																													
New Hampshire										0	0	5	0													0	0	4	0
New Jersey																										0	0	4	0
New Mexico														2	2	3	0												
New York	1	1	0	0	2					0	?	5														0	?	5	
North Carolina *																													
North Dakota						0	0	3	3																				
Ohio *																													
Oklahoma						0	0	6	6	0	0	5	5	0	0	5	0									0	0	5	5
Oregon										1	2	4	4													0	0	3	4
Pennsylvania	1	1	0	0	5					0	0	5	0																
Puerto Rico *																													
Rhode Island *																													
South Carolina *																													
South Dakota	1	1	0	0		0	0	6	3																				
Tennessee										0	2	4	6	2	1	5	0									0	0	4	5
Texas	7	5	0	1	5	0	0	5	5	0	0	4	0	1	3	5	0									2	0	6	3
Utah *																													
Vermont										0	1	5	3																
U.S. Virgin Is. *																													
Virginia *																													
Washington	1	1	0	0	5																								
West Virginia *																													
Wisconsin						0	0	4	5					0	2	4	0												
Wyoming						0	0	0	4					0	1	0	0												

* No occurrence of storms or unusual weather phenomena.
‡ Includes heavy sleet storm.
# Freezing drizzle and freezing rain, commonly known as glaze.
ø For breakdown of "All Others", and for detailed listing of other storms, see the U. S. Weather Bureau monthly publication STORM DATA.
° Includes Crop Damage
C Crop Damage

† Storm damages are placed in categories varying from 1 to 9 as follows:

1	Less than $50
2	$50 to $500
3	$500 to $5,000
4	$5,000 to $50,000
5	$50,000 to $500,000
6	$500,000 to $5,000,000
7	$5,000,000 to $50,000,000
8	$50,000,000 to $500,000,000
9	$500,000,000 to $5,000,000,000

GENERAL SUMMARY OF RIVER AND FLOOD CONDITIONS

SEPTEMBER 1962

Comparatively heavy damages resulted from the tributary overflows in the lower Smoky Hill River Valley in Kansas during September. Lyon Creek crested 11 feet over flood stage or within 2 feet of the record stage of 1951. Flash floods occurred on smaller streams in the West Gulf of Mexico Drainage. This was the third flash flood on Fossil Creek in 6 weeks. Flooding reported along main streams was mostly minor.

ATLANTIC SLOPE DRAINAGE

Heavy rain from the 15th to the 17th caused the Rocky River to rise to 4 feet above flood stage at Norwood, N. C., on the 17th. Monroe, N. C., reported 6.7 inches and Kershaw, S. C., reported 5.17 inches during that period. All streams in the area were low prior to these heavy rains. The North Fork of the Edisto River rose to 0.4 foot over flood stage at Orangeburg, S. C., on the 29th from heavy rains on the 26th and 27th. Springfield, S. C., reported 4.61 inches and Branchville, S. C., reported 4.3 inches during that period. Shallow flooding of cultivated land in the Norwood area and slight inconvenience at the boat landing and park at Orangeburg were the only effects of the flooding.

MISSISSIPPI SYSTEM

Upper Mississippi Basin.--Excessive rainfall across northern Iowa late in August caused flooding on the Cedar, North Raccoon, and Des Moines Rivers. Flooding began on the Cedar at Charles City, Iowa, on August 31 and continued to September 2. The Des Moines River began to overflow at Fort Dodge, Iowa, on the 1st with flooding continuing until the 9th at Eddyville, Iowa. The North Raccoon was in flood at Jefferson, Iowa, from the 2d to the 8th.

Missouri Basin.--Flooding in the Missouri Basin was confined to the lower Smoky Hill River Valley in Kansas. Heavy flooding occurred on Lyon Creek with a crest of 11 feet over flood stage at Woodbine, Kans., on the 24th. The crest of 28.05 feet had been exceeded slightly last year and by the record stage of 30 feet in 1951. Flooding also took place in the adjacent drainage area for Turkey Creek and rises on Chapman Creek were near flood stage. Substantial within banks rises developed on the lower Smoky Hill and Kansas Rivers. The heavy flooding on Lyon Creek was due to recurrent rains which totalled 8.15 inches at Herington, Kans., from the 19th to the 24th. On Turkey Creek, the rainfall totalled 6.3 inches at Elmo, Kans. Comparatively heavy damages resulted from the tributary overflows.

Ohio Basin.--The only flooding in the Ohio Basin during September was on the Eel River at Bowling Green, Ky. This flooding was due to heavy rainfall, which ranged up to 6.24 inches at Greencastle, Ind., during the 24-hour period ending at 7 a.m. on the 14th. There was some damage to crops from the overflows.

Arkansas Basin.--Heavy rains (3.5 inches) on the 15th caused flooding on Bird Creek in Oklahoma from the 15th to the 17th. The overflow ranged from 6 1/2 feet at Avant, Okla., to about 4 feet at its confluence near Owasso, Okla., on the 16th and 17th. This same storm caused the Cimarron River to rise to bankfull stage at Waynoka, Okla. Flash flooding occurred on small creeks at Tulsa, Okla., on the 3d and 15th. A very small area of heavy rain caused flash flooding on Bear Creek, east of Sapula, Okla., on the evening of the 19th. The fast moving current swept a car downstream, but the occupant managed to escape from the car without injury.

Flooding began on the Cottonwood and Neosho Rivers in Kansas on the 22d and continued on the Cottonwood until the 28th, and until October 3 on the Neosho at Commerce, Okla. Flooding was moderate along the Cottonwood and along the Neosho downstream to Chanute, Kans. This flooding was due to rain during the period from the 14th through the 25th, with the heaviest amounts on the 15th, 22d, and 24th.

One death occurred in a severe thunderstorm and flash flood near Woodward, Okla., in a creek on the North Canadian Basin. There was no flooding on the North Canadian River.

Red Basin.--Locally heavy rains late on the night of the 16th and the early morning hours of the 17th caused flooding on the Washita River at Clinton, Okla., on the 17th. The river crested at Clinton, Okla., within 12 hours after the beginning of rainfall. The rainfall totalled 4.55 inches at Clinton, Okla., at 7 a.m. on the 17th. Only minor flooding of lowlands occurred downstream.

Minor flooding occurred along the Sulphur River at Naples, Tex., from the 15th to the 18th. This flooding was due to rainfall during the 6-day period from the 5th to the 10th. The rainfall was the heaviest on the 6th, 7th, and 8th, and averaged near 3.34 inches during this 3-day period.

WEST GULF OF MEXICO DRAINAGE

Flash floods occurred on smaller streams in the upper Trinity Basin during the afternoon and evening of the 7th. The most extensive flooding was over the northern portions ot Tarrant County and in Denton County. Most of the flood water was impounded by reservoirs, except the Fossil Creek runoff and some uncontrolled discharge over Lake Worth Dam. This was the highest stage of record on Big Fossil Creek at 24.9 feet, with estimated discharge in excess of 25,000 cfs. The Trinity crested about 3.5 ft., above flood stage at Dallas and 2 ft., above at Rosser, Texas. There was no significant flooding below Dallas. Flood losses along the Trinity were limited mainly to loss of grazing land. Major damage resulted to homes along Fossil Creek in southwestern Richland Hills area. Many homes were evacuated and in others furniture was stored above water level. This was the third flash flood in the Richland Hills area in 6 weeks.

Minor flooding occurred on the Brazos River above Possum Kingdom Reservoir at South Bend, Tex., from the 8th to the 10th. The crest at South Bend was 24.7 feet (flood stage 21 feet) on the 9th. Near bankfull stages occurred between Possum Kingdom Reservoir and Whitney Dam. This flooding was due to rainfall totalling 5 to 13 inches during the first 10 days of the month.

Very heavy rains over a limited area during the early morning of the 9th, with amounts up to 11.5 inches in 6 hours, resulted in extensive flooding on the Chiltipin and upper Agua Dulce Creeks in Texas. Moderate flooding occurred on the lower Agua Dulce, San Fernando, and Pintas Creeks. This flooding was the most extensive since the floods of 1953. Considerable damage resulted to terraces and fences. Some livestock were drowned and a few buildings were flooded. Several highways were under water for several hours.

GULF OF CALIFORNIA DRAINAGE

Heavy thundershowers (4 to 5.75 inches) in the Sells and Tucson, New Mexico, areas on the 26th caused high water in the Santa Rosa Wash near Sells and in Santa Cruz River in Tucson area. During the evening of the 27th and early morning of the 28th, flood waters from the Santa Rosa Wash and Santa Cruz River merged in the Stanfield-Maricopa area where channels from both streams become indistinct. This is an area with no difinite stream channels, an area of alluvial fill, where waters are forced to find their own way to the Gila River. In some low sections where small washes existed, water became about 5 feet deep and about one-half mile wide. Flood waters did not encroach into either town. Flood waters finally made their way to the Gila River near Komatke during the morning of the 28th. The Gila River Channel was able to handle them without damage to surrounding lands. Major damage occurred to cotton farmlands in the Stanfield-Maricopa area. About 30,000 acres of farmland were inundated. Much of the cotton had not been harvested. Some damage occurred to county roads in the flooded areas.

FLOOD STAGE DATA

(All dates in September unless otherwise sepcified)

SEPTEMBER 1962

River and station	Flood stage	Above flood stages -dates		Crest*	
		From—	To—	Stage	Date
ATLANTIC SLOPE DRAINAGE	*Ft.*			*Ft.*	
Rocky: Norwood, N. C.	16	17	17	19.95	17
North Fork Edisto: Orangeburg, S. C.	8	29	30	8.4	29
MISSISSIPPI SYSTEM					
Upper Mississippi Basin					
Cedar: Charles City, Iowa	9	Aug. 31	2	14.8	1
West Fork Des Moines: Humboldt, Iowa	8	2	2	8.9	2
North Raccoon: Jefferson, Iowa	10	2	8	16.3	4
Des Moines: Fort Dodge, Iowa	10	1	2	11.5	1
Boone, Iowa	12	3	4	13.5	3
Des Moines, S.E. 14th St., Iowa	21	6	7	22.0	6
Eddyville, Iowa	15	9	9	15.3	9
Missouri Basin					
Lyon Creek: Woodbine, Kans.	17	21 24	22 25	25.8 28.05	22 24
Turkey Creek: Abilene, Kans.	15			23.6	24
Sappa Creek: Oberlin, Kans.	11	1	1	11.4	1
Ohio Basin					
Eel: Bowling Green, Ind.	17	15	15	19.3	15
Arkansas Basin					
Cimarron: Waynoka, Okla.	8	17	17	8.0	17
Bird Creek: Avant, Okla.	16	15	15	22.7	15
Sperry, Okla.	21	15	17	24.7	16
MISSISSIPPI SYSTEM (Cont'd.)	*Ft.*			*Ft.*	
Arkansas Basin (Cont'd.)					
Cottonwood: Cottonwood Falls, Kans.	9	24	25	13.7	24
Emporia, Kans.	20	22	28	25.0	26
Neosho: Emporia, Kans.	24	25	26	25.5	25
Neosho Rapids, Kans.	22	22	28	25.4	26
Burlington, Kans.	27	22	29	31.3	28
Leroy, Kans.	23	22	30	25.55	22
Iola, Kans.	15	22	Oct. 1	17.0	24
Chanute, Kans.	20	22	27	24.7	23
Parsons, Kans.	24	24	28	24.6	26
Commerce, Okla.	15	22	Oct. 3	18.4	Oct. 1
Red Basin					
Washita: Clinton, Okla.	18	17	17	21.7	17
Sulphur: Naples, Texas	22	15	18	24.6	16
WEST GULF OF MEXICO DRAINAGE					
East Fork Trinity: Rockwall, Texas	10	9 14	9 27	10.1 11.5	9 20-21
Trinity: Dallas, Texas	30	8 12	10 22	33.5 32.2	9 15
Rosser, Texas	26	9 18	13 23	27.7 26.3	9 20
Brazos: South Bend, Texas	21	8	10	24.7	9

* Provisional

RAWINSONDE DATA

Average monthly values

SEPTEMBER 1962

ALBANY, N. Y. 1007 MB

Standard pressure surface (mb)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind Direction	Wind Speed
SURFACE	30	86	10.3	91	262	1.6
1000	30	146	11.0	86	257	2.9
950	30	575	11.6	74	276	5.2
900	30	1,027	9.3	73	287	9.1
850	30	1,499	6.6	73	291	10.7
800	30	1,996	4.4	61	292	13.6
750	30	2,518	2.8	48	283	16.5
700	30	3,077	.6	40	274	19.2
650	30	3,665	-2.7		271	22.7
600	30	4,300	-6.0		270	25.6
550	30	4,971	-10.0		270	29.5
500	30	5,707	-14.3		264	31.3
450	30	6,493	-19.7		264	35.0
400	30	7,364	-25.9		263	38.7
350	30	8,318	-32.5		261	44.1
300	30	9,389	-40.1		258	48.8
250	30	10,613	-47.5		261	52.7
200	29	12,070	-53.5		270	54.2
175	29	12,926	-55.4		268	50.3
150	29	13,904	-57.6		269	42.9
125	28	15,045	-59.3		265	35.9
100	28	16,439	-59.8		262	24.5
80	28	17,839	-57.8		260	16.7
70	28	18,684	-56.7		265	12.2
60	27	19,664	-55.8		261	7.0
50	26	20,828	-54.4		257	4.5
40	26	22,261	-53.0		246	6.6
30	20	24,123	-50.7		236	2.1
25	19	25,323	-48.9		245	2.5
20	19	26,794	-47.0		107	1.7
15	14	28,716	-44.8		280	2.9
10						
7						

ALBUQUERQUE, N. MEX. 840 MB

Standard pressure surface (mb)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind Direction	Wind Speed
SURFACE	30	1,619	15.2	70	65	3.3
1000	30	112				
950	30	559				
900	30	1,025				
850	30	1,520				
800	30	2,037	15.5	56	171	3.7
750	30	2,576	12.4	56	236	4.1
700	30	3,158	8.8	57	270	7.2
650	30	3,761	4.6	57	264	8.2
600	30	4,415	-.1	60	268	8.9
550	30	5,094	-4.8	58	270	9.5
500	30	5,850	-9.4	51	268	13.6
450	30	6,650	-14.0		270	14.0
400	30	7,544	-19.9		266	21.2
350	30	8,520	-26.9		262	25.5
300	30	9,613	-35.1		261	33.8
250	30	10,859	-44.4		261	41.0
200	30	12,321	-54.5		264	46.4
175	30	13,166	-59.7		265	45.5
150	30	14,118	-64.9		266	40.4
125	30	15,220	-68.6		270	27.8
100	29	16,549	-70.2		281	15.2
80	29	17,884	-67.1		290	5.2
70	29	18,696	-64.4		334	1.2
60	29	19,646	-61.4		66	4.5
50	28	20,787	-58.5		81	8.0
40	28	22,198	-55.9		80	8.7
30	26	24,039	-52.6		86	9.9
25	25	25,222	-51.1		81	9.9
20	24	26,683	-49.0		82	10.5
15	20	28,591	-46.5		91	10.5
10	10	31,332	-42.8			
7						

AMARILLO, TEXAS 893 MB

Standard pressure surface (mb)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind Direction	Wind Speed
SURFACE	30	1,095	16.2	87	226	3.3
1000	30	123				
950	30	568				
900	30	1,034				
850	30	1,520	16.4	66	223	13.4
800	30	2,036	15.3	59	235	12.0
750	30	2,576	12.1	56	244	9.1
700	30	3,156	8.3	56	255	7.6
650	30	3,759	4.4	51	260	4.5
600	30	4,412	.3	45	269	5.4
550	30	5,096	-4.3	46	267	7.4
500	30	5,849	-8.8	41	270	11.9
450	30	6,652	-13.8	34	270	16.9
400	30	7,545	-19.6		270	23.5
350	30	8,523	-26.5		268	30.9
300	30	9,618	-34.7		268	37.7
250	30	10,867	-44.2		271	43.5
200	30	12,329	-54.4		272	48.6
175	30	13,174	-59.7		270	45.3
150	29	14,125	-65.0		271	40.4
125	29	15,224	-69.3		273	32.1
100	25	16,546	-69.4		284	21.0
80	22	17,888	-65.8		295	7.2
70	20	18,707	-63.5		313	1.4
60	18	19,661	-60.4		65	2.5
50	17	20,805	-57.3		70	5.1
40	17	22,224	-54.7		72	5.4
30	15	24,077	-51.8		75	8.2
25	14	25,270	-50.0		80	9.7
20	13	26,743	-47.7		93	10.7
15	9	28,632	-46.8			
10	6	31,317	-42.9			
7						

ANCHORAGE, ALASKA 1003 MB

Standard pressure surface (mb)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind Direction	Wind Speed
SURFACE	30	29	5.9	78	267	.6
1000	30	56	6.9	68	54	.8
950	30	476	5.5	64	46	2.5
900	30	918	3.1	63	98	3.3
850	30	1,379	-.1	65	122	4.3
800	30	1,861	-3.2	67	150	5.8
750	30	2,369	-5.8	62	177	6.6
700	30	2,908	-8.2	57	209	6.8
650	30	3,476	-12.0	52	216	8.2
600	30	4,087	-15.8	51	218	11.5
550	30	4,733	-20.2	48	229	12.8
500	30	5,438	-24.8	48	236	15.2
450	30	6,191	-30.2	46	237	16.9
400	30	7,023	-36.5		238	18.7
350	30	7,935	-43.4		243	21.0
300	30	8,957	-50.0		243	25.5
250	30	10,137	-52.6		245	29.0
200	30	11,585	-50.5		252	29.1
175	30	12,457	-50.0		254	28.0
150	30	13,464	-50.2		253	26.0
125	30	14,654	-50.6		252	24.9
100	30	16,107	-51.0		254	23.1
80	30	17,559	-51.1		255	21.2
70	30	18,430	-51.3		255	19.2
60	30	19,427	-51.9		255	18.8
50	30	20,607	-52.5		258	18.5
40	30	22,051	-52.0		261	18.8
30	29	23,918	-51.8		266	18.5
25	28	25,102	-51.1		267	19.8
20	27	26,548	-50.4		274	21.2
15	22	28,422	-49.4		279	22.2
10	6	31,141	-44.7			
7						

ANNETTE, ALASKA 1008 MB

Standard pressure surface (mb)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind Direction	Wind Speed
SURFACE	26	37	11.2	87	133	4.1
1000	26	103	10.9	86	145	5.4
950	26	523	8.8	82	168	13.2
900	26	976	6.1	82	186	14.8
850	26	1,443	3.2	79	200	14.0
800	26	1,933	.8	69	207	15.5
750	26	2,444	-2.1	62	210	18.5
700	26	2,995	-5.2	55	220	20.4
650	26	3,567	-8.3	56	220	23.5
600	26	4,192	-11.7	54	224	25.1
550	26	4,846	-15.8	55	227	25.6
500	26	5,567	-20.3	56	231	28.8
450	26	6,330	-25.3	54	229	31.1
400	26	7,187	-31.2	53	228	34.[illegible]
350	26	8,119	-38.0		229	35.2
300	26	9,164	-45.7		237	40.8
250	26	10,360	-52.0		250	43.5
200	26	11,793	-54.9		252	36.7
175	25	12,646	-54.8		247	33.2
150	25	13,632	-54.6		255	28.6
125	24	14,806	-55.1		260	27.2
100	23	16,241	-54.5		258	25.3
80	22	17,674	-54.4		259	22.7
70	22	18,537	-54.0		255	20.4
60	22	19,520	-54.0		258	20.2
50	22	20,689	-54.2		256	17.7
40	22	22,121	-53.7		263	17.3
30	21	23,972	-53.2		262	12.0
25	20	25,147	-52.7		268	15.0
20	18	26,694	-51.7			
15	14	27,943	-48.9			
10	9	31,155	-45.0			
7	6	33,554	-42.5			

ATHENS, GA. 990 MB

Standard pressure surface (mb)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind Direction	Wind Speed
SURFACE	30	246	16.8	93	15	2.5
1000	30	156				
950	30	597	18.9	73	58	1.9
900	30	1,062	16.8	69	83	1.0
850	30	1,548	14.0	67	271	2.5
800	30	2,058	11.6	60	272	4.1
750	30	2,593	9.5	50	268	7.0
700	30	3,167	6.8	47	275	9.3
650	30	3,770	3.7	39	275	12.2
600	30	4,419	.2	35	275	13.8
550	30	5,107	-3.8		273	17.3
500	30	5,858	-8.5	36	269	19.4
450	30	6,662	-13.6		273	21.6
400	30	7,555	-19.7	33	277	24.3
350	30	8,533	-26.6	34	280	28.4
300	29	9,625	-35.2		284	31.7
250	29	10,870	-45.0		284	34.2
200	29	12,327	-55.4		290	34.2
175	29	13,170	-60.0		285	34.8
150	29	14,121	-65.1		288	31.5
125	28	15,217	-68.5		284	26.0
100	28	16,552	-69.0		288	14.8
80	28	17,896	-65.8		310	6.4
70	28	18,719	-62.4		332	2.1
60	27	19,669	-59.6		68	2.1
50	27	20,818	-56.8		98	6.2
40	27	22,241	-54.5		93	8.7
30	27	24,095	-51.8		91	12.2
25	27	25,283	-50.1		91	12.4
20	26	26,747	-48.2		91	10.7
15	17	28,651	-46.0		75	8.5
10						
7						

BARROW, ALASKA 1008 MB

Standard pressure surface (mb)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind Direction	Wind Speed
SURFACE	30	8	-1.1	81	86	6.4
1000	30	74	-1.7	77	94	8.0
950	30	478	-3.7	71	106	7.2
900	30	907	-5.8	68	110	5.2
850	30	1,354	-7.4	64	118	3.7
800	30	1,824	-9.5	59	176	3.7
750	29	2,317	-11.7	55	200	4.5
700	29	2,845	-14.4	52	210	6.0
650	29	3,400	-17.6	50	216	8.2
600	29	3,999	-21.3	47	219	10.3
550	29	4,630	-25.5	46	222	12.8
500	29	5,322	-30.1	41	223	16.9
450	29	6,058	-35.2		225	16.9
400	29	6,878	-41.0		229	18.5
350	29	7,773	-47.3		231	22.2
300	29	8,778	-53.6		236	23.1
250	29	9,947	-53.6		237	22.0
200	29	11,398	-49.4		244	19.4
175	29	12,274	-48.9		247	19.2
150	29	13,286	-48.9		248	20.0
125	28	14,479	-48.9		249	16.3
100	27	15,939	-49.6		247	14.2
80	26	17,390	-50.5		254	13.2
70	26	18,263	-51.1		254	14.8
60	26	19,260	-51.7		259	13.2
50	26	20,439	-52.6		259	12.8
40	24	21,882	-53.2		255	15.2
30	22	23,728	-53.3		261	16.1
25	22	24,904	-52.5		260	17.9
20	20	26,326	-51.8		255	20.6
15	18	28,208	-50.3		258	21.2
10	16	30,879	-47.2		263	22.5
7	9	33,347	-42.8			

BARTER IS., ALASKA 1007 MB

Standard pressure surface (mb)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind Direction	Wind Speed
SURFACE	30	15	-.5	84	56	1.7
1000	30	71	-1.0	82	66	3.1
950	30	478	-1.8	78	78	.6
900	30	910	-3.5	77	268	2.3
850	30	1,361	-4.7	74	233	3.9
800	30	1,836	-6.9	67	238	7.0
750	30	2,336	-9.6	64	250	7.4
700	30	2,868	-12.5	65	250	9.1
650	30	3,429	-15.8	62	242	10.9
600	30	4,030	-19.3	60	246	13.4
550	30	4,668	-23.4	59	241	15.5
500	30	5,363	-28.0	54	245	18.1
450	30	6,104	-33.4	49	247	21.4
400	30	6,929	-39.6		242	22.9
350	30	7,828	-46.5		245	25.3
300	30	8,835	-53.7		248	27.4
250	30	9,996	-56.0		253	26.6
200	30	11,434	-50.9		251	25.6
175	29	12,303	-50.2		254	24.5
150	29	13,311	-50.0		256	22.7
125	29	14,502	-50.1		254	20.6
100	29	15,959	-50.5		253	20.4
80	29	17,412	-50.8		255	19.4
70	29	18,278	-51.1		258	19.0
60	27	19,285	-51.6		257	18.1
50	27	20,466	-52.3		260	16.3
40	26	21,908	-52.4		258	15.5
30	24	23,768	-52.3		263	17.5
25	23	24,955	-51.5		266	17.7
20	23	26,406	-50.6		268	15.9
15	16	28,295	-49.2		268	22.7
10						
7						

BETHEL, ALASKA 1002 MB

Standard pressure surface (mb)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind Direction	Wind Speed
SURFACE	30	39	4.3	91	225	1.7
1000	30	52	5.0	85	259	4.7
950	30	470	3.2	79	183	2.5
900	30	907	.4	79	201	4.5
850	30	1,364	-2.0	73	216	5.8
800	30	1,844	-4.6	70	225	6.6
750	30	2,348	-7.0	61	229	8.2
700	30	2,886	-10.0	55	231	9.1
650	30	3,449	-13.5	53	232	11.1
600	30	4,059	-17.2	49	236	13.8
550	30	4,699	-21.4	48	240	15.9
500	30	5,404	-25.8	46	245	17.1
450	30	6,152	-31.0	44	249	20.4
400	30	6,986	-37.0		248	23.9
350	30	7,898	-43.3		255	28.2
300	30	8,921	-49.5		257	34.8
250	30	10,105	-51.9		257	34.0
200	30	11,560	-49.5		265	31.5
175	30	12,435	-49.3		265	28.4
150	30	13,444	-50.0		264	27.6
125	30	14,635	-50.3		263	27.4
100	30	16,089	-50.6		263	24.1
80	30	17,542	-51.2		262	21.2
70	30	18,404	-51.7		259	20.2
60	30	19,407	-51.9		261	19.2
50	30	20,588	-52.1		259	18.5
40	28	22,043	-51.9		257	18.1
30	22	23,931	-51.3		266	17.3
25	15	25,095	-50.8		269	22.0
20	12	26,551	-49.3			
15	5	28,310	-50.2			
10						
7						

BISMARCK, N. DAK. 957 MB

Standard pressure surface (mb)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind Direction	Wind Speed
SURFACE	30	505	6.9	78	39	1.0
1000	30	138				
950	30	568	8.3	70	41	.8
900	30	1,015	11.3	53	259	3.9
850	30	1,492	9.8	50	288	7.6
800	30	1,993	7.2	50	294	10.7
750	30	2,523	4.0	50	292	12.4
700	30	3,080	1.0	42	291	15.0
650	30	3,669	-2.0	42	286	20.0
600	30	4,305	-5.7	40	282	23.9
550	30	4,975	-9.8	37	284	26.6
500	30	5,712	-14.5		283	27.8
450	30	6,494	-20.2		284	28.4
400	30	7,364	-26.7		281	30.7
350	30	8,315	-34.1		284	34.0
300	30	9,377	-42.2		286	37.1
250	30	10,588	-50.4		282	43.7
200	30	12,028	-54.7		279	47.4
175	30	12,881	-56.1		279	46.0
150	30	13,859	-57.1		280	44.7
125	30	15,009	-58.5		284	35.6
100	30	16,412	-58.6		286	28.2
80	30	17,814	-57.6		293	20.6
70	29	18,665	-57.0		299	15.2
60	29	19,637	-55.6		298	8.4
50	29	20,800	-55.2		299	6.0
40	29	22,229	-53.8		313	4.7
30	27	24,083	-51.9		330	2.9
25	26	25,271	-50.7		329	3.7
20	24	26,740	-48.6		316	3.7
15	12	28,650	-46.2			
10						
7						

BOISE, IDAHO 915 MB

Standard pressure surface (mb)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind Direction	Wind Speed
SURFACE	30	868	12.3	48	141	4.7
1000	30	114				
950	30	551				
900	30	1,009	16.4	37	160	3.1
850	30	1,496	16.4	32	260	2.5
800	30	2,008	13.1	34	253	3.7
750	30	2,544	9.3	35	257	6.6
700	30	3,115	5.4	36	265	10.3
650	30	3,714	1.2	39	268	13.4
600	30	4,355	-3.3	41	267	17.9
550	30	5,032	-7.6		268	21.4
500	30	5,774	-12.4		268	19.0
450	30	6,566	-18.0		270	21.8
400	30	7,441	-24.8		267	25.5
350	30	8,399	-32.2		268	26.6
300	29	9,468	-40.8		268	28.8
250	28	10,680	-49.5		276	26.4
200	26	12,117	-55.4		271	31.1
175	26	12,965	-56.9		270	33.6
150	26	13,937	-58.8		270	32.6
125	25	15,075	-61.2		273	29.9
100	25	16,454	-62.4		275	23.5
80	25	17,836	-61.0		274	17.7
70	25	18,674	-59.8		277	12.0
60	25	19,635	-58.4		275	8.0
50	24	20,789	-56.5		281	5.1
40	24	22,211	-55.0		278	3.3
30	21	24,064	-52.6		285	.6
25	21	25,244	-51.6		25	1.4
20	21	26,698	-49.6		1	1.9
15	16	28,604	-47.8		18	4.5
10						
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BROWNSVILLE, TEXAS 1013 MB

Standard pressure surface (mb)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind Direction	Wind Speed
SURFACE	30	7	24.7	90	88	.8
1000	30	117	25.9	80	117	3.5
950	30	570	23.4	78	142	10.5
900	30	1,040	20.5	78	149	10.3
850	30	1,533	17.7	74	142	9.1
800	30	2,050	14.9	67	127	6.8
750	30	2,591	12.1	63	110	7.0
700	30	3,171	9.1	57	108	7.4
650	30	3,776	6.0	49	98	6.6
600	30	4,434	2.4	46	96	5.1
550	30	5,124	-1.8	44	84	4.7
500	30	5,885	-6.2	41	87	4.7
450	30	6,695	-11.2	34	76	4.5
400	30	7,598	-16.9	33	77	3.9
350	30	8,586	-23.9		65	2.9
300	30	9,693	-32.3		35	1.9
250	30	10,953	-42.4		29	1.0
200	30	12,422	-54.3		6	3.9
175	30	13,266	-60.5		5	5.4
150	30	14,211	-66.7		18	6.2
125	30	15,297	-72.5		36	8.4
100	30	16,598	-74.6		50	9.7
80	29	17,910	-69.4		63	14.8
70	29	18,709	-66.0		86	16.9
60	28	19,656	-63.5		100	18.3
50	28	20,783	-60.1		93	20.2
40	28	22,189	-56.3		91	25.6
30	28	24,035	-52.3		90	29.0
25	27	25,222	-50.1		90	29.3
20	26	26,684	-48.6		90	31.9
15	24	28,592	-45.9		91	31.7
10	21	31,309	-41.9		87	28.4
7	15	33,714	-39.8		98	35.9
5	10	36,046	-35.7			

BUFFALO, N. Y. 992 MB

Standard pressure surface (mb)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind Direction	Wind Speed
SURFACE	30	218	11.0	77	207	2.1
1000	30	148				
950	30	579	12.6	71	257	6.0
900	30	1,031	9.9	71	274	9.3
850	30	1,504	7.2	70	273	11.9
800	30	2,001	4.4	67	279	14.4
750	30	2,525	2.4	51	283	17.5
700	30	3,081	.1	41	283	17.7
650	30	3,667	-2.8	42	281	21.0
600	30	4,303	-6.3	39	276	23.5
550	30	4,971	-10.4		272	25.6
500	30	5,707	-15.1	37	274	28.0
450	30	6,491	-20.3		272	29.5
400	30	7,359	-26.6		272	34.0
350	30	8,310	-33.5		271	38.7
300	30	9,376	-41.0		268	43.7
250	30	10,596	-48.1		266	47.4
200	30	12,053	-52.1		269	50.7
175	30	12,913	-54.4		270	44.7
150	30	13,895	-57.2		267	40.0
125	30	15,043	-59.1		268	33.2
100	30	16,441	-59.3		269	25.6
80	30	17,841	-58.0		267	17.1
70	30	18,687	-56.7		268	12.4
60	29	19,665	-55.6		264	8.7
50	29	20,829	-54.5		256	6.0
40	29	22,263	-52.7		264	2.9
30	29	24,131	-50.4		272	2.9
25	28	25,327	-48.8		245	1.9
20	24	26,799	-46.6		242	2.5
15	10	28,659	-44.9			
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BURRWOOD, LA. 1015 MB

Standard pressure surface (mb)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind Direction	Wind Speed
SURFACE	30	3	26.0	80	81	2.7
1000	30	132	25.7	72	74	3.7
950	30	587	22.5	72	86	4.9
900	30	1,052	19.7	68	106	3.9
850	30	1,544	16.8	67	116	3.3
800	30	2,059	14.2	60	91	2.5
750	30	2,603	11.6	54	65	2.5
700	30	3,177	8.5	51	39	3.3
650	30	3,785	5.3	51	35	3.5
600	30	4,436	1.5	47	349	2.3
550	30	5,127	-2.3	43	335	4.5
500	30	5,884	-6.8	40	336	5.8
450	30	6,696	-11.6	39	335	5.8
400	30	7,594	-17.5	37	315	6.6
350	30	8,579	-24.6	32	312	6.6
300	30	9,683	-32.9		310	7.8
250	30	10,938	-42.9		322	5.8
200	30	12,405	-54.5		319	9.5
175	30	13,248	-60.5		326	8.5
150	30	14,194	-66.6		326	9.5
125	30	15,283	-71.5		331	7.8
100	30	16,594	-72.9		353	7.0
80	30	17,913	-68.8		49	8.9
70	30	18,728	-65.0		79	11.3
60	30	19,665	-61.6		90	12.8
50	30	20,804	-58.3		87	15.5
40	30	22,217	-55.4		86	18.7
30	30	24,065	-52.2		84	23.3
25	29	25,247	-50.3		91	23.1
20	28	26,710	-48.0		89	22.9
15	28	28,613	-46.0		85	22.5
10	27	31,337	-41.2		84	24.7
7	21	33,773	-38.7		98	25.8
5	11	36,051	-35.4			

CANTON IS., PACIFIC AREA 1010 MB

Standard pressure surface (mb)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind Direction	Wind Speed
SURFACE	30	4	26.6	78	81	11.9
1000	30	92	26.0	78	88	13.4
950	30	540	22.6	80	98	17.7
900	30	1,013	19.3	79	96	21.2
850	30	1,504	16.7	68	93	21.4
800	30	2,019	14.6	48	92	19.4
750	30	2,563	12.6	37	86	17.7
700	30	3,140	9.8		81	15.7
650	30	3,749	6.4		83	14.0
600	30	4,404	2.7		88	15.3
550	30	5,100	-.8		96	16.5
500	30	5,860	-5.1		98	12.4
450	30	6,678	-10.2		90	10.1
400	30	7,580	-15.9		97	8.4
350	30	8,573	-22.8		134	9.7
300	30	9,686	-31.4		189	7.4
250	30	10,950	-41.9		242	4.9
200	30	12,423	-54.2		284	6.6
175	30	13,267	-61.1		292	8.4
150	30	14,208	-68.2		275	10.1
125	30	15,281	-76.0		264	9.5
100	30	16,553	-78.5		87	2.3
80	29	17,845	-72.5		222	3.3
70	28	18,637	-69.3		263	12.4
60	27	19,560	-67.0		269	20.4
50	27	20,667	-64.6		263	8.4
40	26	22,038	-62.1		87	30.7
30	26	23,841	-56.5		90	55.4
25	25	25,004	-54.1		91	55.8
20	25	26,451	-49.9		90	58.5
15	25	28,345	-47.0		90	64.3
10	24	31,075	-38.9		91	32.8
7	17	33,542	-35.8		146	2.1
5	7	35,877	-33.6			

See reference note at end of table

RAWINSONDE DATA

Average monthly values

CAPE HATTERAS, N. C.
1016 MB

Standard pressure surface (mb)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind Direction	Wind Speed
SURFACE	30	4	20.6	83	22	3.5
1000	30	143	21.5	74	18	4.3
950	30	584	18.7	71	359	3.1
900	30	1,050	16.1	68	305	3.5
850	30	1,534	13.3	67	286	5.2
800	30	2,043	11.0	56	266	7.6
750	30	2,577	9.3	42	264	10.9
700	30	3,150	7.0	40	262	14.8
650	30	3,750	4.1	35	263	17.1
600	30	4,402	.2	38	262	18.5
550	30	5,086	- 3.5	36	265	21.0
500	30	5,843	- 8.0		266	23.9
450	30	6,649	-13.2		262	24.1
400	30	7,541	-19.4	36	260	27.2
350	30	8,520	-26.4		262	29.0
300	30	9,616	-34.7		258	30.9
250	30	10,864	-44.4		264	31.5
200	30	12,324	-54.6		268	33.2
175	30	13,169	-59.5		269	35.0
150	30	14,124	-63.8		272	32.8
125	30	15,233	-66.7		274	25.8
100	30	16,579	-66.9		268	17.1
80	29	17,934	-63.7		263	8.4
70	29	18,763	-61.3		251	5.6
60	29	19,721	-58.4		328	.8
50	28	20,875	-56.1		95	5.1
40	28	22,302	-53.5		89	8.0
30	26	24,172	-50.2		86	11.1
25	25	25,364	-48.4		90	13.2
20	24	26,845	-46.9		93	11.1
15	24	28,761	-44.7		89	11.1
10	22	31,489	-42.0		74	11.5
7	17	33,943	-37.7		81	17.1
5	9	36,236	-33.5			

CARIBOU, ME.
994 MB

Standard pressure surface (mb)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind Direction	Wind Speed
SURFACE	30	191	7.6	94	284	1.2
1000	30	137	4.5			
950	30	559	8.9	76	288	3.3
900	30	1,009	7.0	73	275	4.9
850	30	1,477	4.8	71	277	7.4
800	30	1,970	3.0	63	269	11.1
750	30	2,494	1.2	57	269	13.6
700	30	3,048	- 1.4	52	267	14.4
650	30	3,626	- 4.5	48	271	15.3
600	30	4,258	- 8.1	42	267	17.9
550	30	4,924	-11.9	37	267	22.3
500	30	5,653	-16.6	36	263	24.9
450	30	6,433	-22.0		262	26.8
400	30	7,295	-27.9		259	29.9
350	30	8,241	-34.5		258	35.0
300	30	9,303	-41.7		257	42.7
250	30	10,519	-48.6		259	47.8
200	30	11,974	-52.0		257	55.2
175	30	12,836	-53.1		256	46.4
150	30	13,826	-55.1		257	40.8
125	30	14,985	-56.6		258	37.3
100	29	16,403	-55.8		259	28.4
80	29	17,825	-54.9		255	22.2
70	29	18,678	-54.6		262	19.0
60	29	19,669	-53.7		257	13.2
50	29	20,843	-52.9		254	9.5
40	29	22,284	-52.2		257	8.2
30	29	24,154	-50.3		257	4.3
25	26	25,349	-49.0		263	6.0
20	25	26,819	-47.0		267	5.6
15	22	28,736	-45.2		267	7.8
10	19	31,466	-41.1		281	8.4
7	13	33,899	-37.6			
5						

CHARLESTON, S. C.
1015 MB

Standard pressure surface (mb)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind Direction	Wind Speed
SURFACE	29	13	19.2	91	15	2.7
1000	29	144	21.5	82	39	2.5
950	29	586	20.5	76	132	.8
900	29	1,056	17.9	73	206	.6
850	29	1,544	15.1	71	235	2.5
800	29	2,057	12.8	59	250	4.9
750	29	2,593	10.7	51	265	7.2
700	29	3,171	8.2	42	265	8.7
650	29	3,774	5.1	42	264	10.5
600	29	4,429	1.3	39	261	12.8
550	29	5,119	- 2.8	35	265	13.6
500	29	5,874	- 7.4	34	265	15.2
450	29	6,681	-12.8	35	264	16.3
400	29	7,577	-18.7	34	269	17.9
350	29	8,560	-25.8		272	20.6
300	29	9,659	-34.2		278	21.8
250	29	10,909	-44.1		281	24.1
200	29	12,371	-54.7		286	26.0
175	29	13,216	-59.8		291	25.5
150	29	14,168	-64.9		286	22.5
125	29	15,269	-68.9		288	20.2
100	28	16,602	-69.8		296	9.9
80	28	17,943	-66.0		311	2.3
70	28	18,761	-62.8		358	.6
60	28	19,717	-59.4		75	5.2
50	28	20,866	-56.9		91	9.1
40	28	22,290	-54.1		89	12.4
30	27	24,148	-51.2		94	14.4
25	26	25,337	-49.7		90	14.2
20	21	26,807	-47.7		90	17.1
15	7	28,712	-45.4			
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COLD BAY, ALASKA
1005 MB

Standard pressure surface (mb)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind Direction	Wind Speed
SURFACE	30	30	7.8	86	311	4.5
1000	30	69	7.2	81	296	4.9
950	30	487	4.9	80	296	12.4
900	30	930	2.1	79	301	12.6
850	30	1,390	.1	74	293	11.9
800	30	1,874	- 1.6	64	285	12.8
750	30	2,385	- 3.3	56	280	15.7
700	30	2,930	- 6.2	52	276	17.5
650	30	3,504	- 9.5	50	273	20.6
600	29	4,115	-13.1	50	273	21.4
550	29	4,771	-17.0	44	270	21.6
500	29	5,483	-21.6		271	26.2
450	29	6,239	-26.7	36	268	28.6
400	29	7,092	-32.7		269	28.6
350	29	8,020	-39.[illegible]		271	32.8
300	29	9,062	-45.5		261	34.6
250	29	10,263	-50.2		258	40.6
200	28	11,720	-50.9		259	42.0
175	28	12,589	-51.1		258	38.1
150	28	13,589	-52.0		258	31.3
125	28	14,766	-53.0		255	27.2
100	28	16,203	-53.1		262	23.1
80	28	17,643	-52.6		255	20.0
70	28	18,506	-52.8		259	19.2
60	28	19,500	-52.3		254	15.7
50	27	20,680	-52.7		257	15.3
40	26	22,129	-52.5		251	14.2
30	26	23,991	-51.3		252	13.2
25	22	25,185	-50.1		249	15.7
20	20	26,642	-49.1		252	13.4
15	18	28,538	-47.4		251	18.5
10	15	31,230	-43.9		261	23.3
7	8	33,647	-40.[illegible]			
5						

COLUMBIA, MO.
989 MB

Standard pressure surface (mb)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind Direction	Wind Speed
SURFACE	30	238	14.5	90	123	1.7
1000	30	142				
950	30	580	16.3	70	158	2.5
900	30	1,039	14.4	66	248	4.1
850	30	1,521	12.3	60	280	6.6
800	30	2,027	10.1	52	281	9.9
750	30	2,559	7.8	53	277	12.6
700	30	3,129	5.1	49	273	14.0
650	30	3,725	1.6	44	278	17.3
600	30	4,372	- 2.0	38	283	19.4
550	30	5,051	- 6.3		284	20.0
500	30	5,798	-10.7		284	23.3
450	30	6,593	-16.0		284	27.0
400	30	7,478	-22.4		284	32.8
350	30	8,445	-29.3		281	39.1
300	30	9,529	-37.5		279	47.0
250	30	10,764	-46.5		278	53.4
200	30	12,214	-55.4		281	60.0
175	30	13,059	-58.8		278	57.5
150	29	14,020	-62.1		282	52.1
125	29	15,140	-64.7		283	37.9
100	29	16,496	-65.5		282	25.8
80	29	17,862	-63.0		293	15.3
70	29	18,693	-61.2		292	9.9
60	28	19,651	-58.6		305	4.5
50	28	20,804	-56.4		350	1.7
40	28	22,226	-54.5		9	1.4
30	28	24,081	-51.7		320	1.0
25	26	25,271	-49.9		23	.8
20	24	26,738	-48.1		72	1.7
15	5	28,687	-45.0			
10						
7						
5						

DAYTON, OHIO
983 MB

Standard pressure surface (mb)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind Direction	Wind Speed
SURFACE	30	297	12.3	89	152	.6
1000	30	151				
950	30	586	14.8	71	230	3.9
900	30	1,043	12.7	65	271	8.0
850	30	1,521	9.9	62	272	10.9
800	30	2,023	7.9	51	272	11.1
750	30	2,552	5.7	45	276	14.0
700	30	3,116	2.8	46	280	15.9
650	30	3,708	- .2	40	278	20.4
600	30	4,350	- 3.7	39	281	22.5
550	30	5,026	- 7.8	34	282	25.1
500	30	5,768	-12.5		281	27.8
450	30	6,561	-17.8		281	32.1
400	30	7,437	-24.2		279	34.2
350	30	8,397	-31.1		278	39.4
300	30	9,473	-38.6		276	45.1
250	30	10,704	-46.2		275	54.8
200	30	12,162	-53.7		277	59.5
175	30	13,014	-57.3		279	58.9
150	30	13,981	-60.4		279	50.3
125	30	15,110	-62.7		275	38.5
100	30	16,481	-62.9		276	26.4
80	30	17,859	-61.2		280	15.9
70	30	18,699	-59.4		281	10.7
60	30	19,662	-57.4		276	5.6
50	29	20,821	-55.5		280	2.9
40	29	22,252	-53.2		278	2.1
30	28	24,114	-50.7		110	.6
25	28	25,307	-48.7		84	1.4
20	26	26,772	-47.0		176	1.0
15	14	28,689	-44.9			
10						

DENVER, COLO.
839 MB

Standard pressure surface (mb)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind Direction	Wind Speed
SURFACE	30	1,611	9.7	68	212	3.9
1000	30	122				
950	30	558				
900	30	1,020				
850	30	1,501				
800	30	2,012	14.4	47	261	4.9
750	30	2,553	12.3	41	280	8.0
700	30	3,130	8.6	36	277	9.5
650	30	3,733	4.1	38	275	9.5
600	30	4,383	- 1.2	41	278	11.3
550	30	5,063	- 6.3	40	276	13.2
500	30	5,808	-11.8	39	271	16.5
450	30	6,602	-17.0		269	22.0
400	30	7,480	-23.4		268	24.9
350	30	8,443	-30.8		267	32.8
300	30	9,520	-38.7		265	40.4
250	30	10,748	-47.4		268	48.8
200	30	12,200	-54.5		269	56.2
175	30	13,049	-57.5		269	49.9
150	30	14,014	-61.2		269	42.7
125	30	15,137	-64.4		272	35.0
100	30	16,495	-65.3		272	21.6
80	29	17,859	-63.8		274	11.9
70	29	18,686	-61.7		285	7.4
60	29	19,643	-59.4		311	1.7
50	28	20,788	-57.7		49	2.7
40	28	22,204	-55.7		54	3.1
30	28	24,053	-52.1		39	1.4
25	27	25,243	-50.5			.0
20	25	26,707	-48.2		301	.6
15	18	28,621	-45.9		21	2.7
10						

DODGE CITY, KANS.
926 MB

Standard pressure surface (mb)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind Direction	Wind Speed
SURFACE	30	792	14.5	93	157	2.3
1000	30	134				
950	30	571				
900	30	1,032	15.9	76	193	6.6
850	30	1,519	16.1	60	227	9.1
800	29	2,033	14.2	55	250	9.5
750	29	2,570	11.5	53	252	9.7
700	29	3,150	8.3	47	253	10.3
650	29	3,751	4.1	46	264	10.3
600	29	4,404	- .7	42	274	11.1
550	29	5,088	- 5.2	38	279	13.0
500	29	5,836	-10.0	35	278	15.9
450	29	6,636	-15.1		275	21.4
400	29	7,523	-21.3		269	25.3
350	29	8,494	-28.1		272	31.1
300	29	9,583	-36.2		270	38.7
250	29	10,824	-45.3		268	47.4
200	29	12,281	-54.6		271	53.6
175	28	13,124	-58.5		273	52.5
150	26	14,077	-62.5		273	47.0
125	25	15,194	-66.0		280	33.4
100	25	16,543	-66.9		285	22.9
80	25	17,901	-63.7		287	12.4
70	25	18,725	-62.3		297	6.8
60	24	19,682	-59.8		319	4.1
50	24	20,829	-57.3		2	2.7
40	23	22,244	-54.5		63	3.3
30	23	24,100	-51.4		2	1.4
25	22	25,275	-49.7		69	1.4
20	19	26,745	-47.7		51	1.7
15	7	28,664	-46.5			
10						

EL PASO, TEXAS
883 MB

Standard pressure surface (mb)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind Direction	Wind Speed
SURFACE	30	1,193	18.5	76	2	1.4
1000	30	111				
950	30	563				
900	30	1,035				
850	30	1,525	18.8	59	120	.6
800	30	2,044	16.4	55	179	3.1
750	30	2,588	12.8	59	223	4.3
700	30	3,167	8.8	61	234	4.1
650	30	3,775	4.7	59	249	6.0
600	30	4,426	.5	56	241	5.4
550	30	5,113	- 3.2	52	260	6.2
500	30	5,869	- 7.5	48	252	10.9
450	30	6,682	-12.2	40	253	13.2
400	30	7,575	-18.3		258	15.9
350	30	8,558	-25.4		258	18.5
300	30	9,659	-33.7		257	22.9
250	30	10,912	-43.4		265	27.4
200	28	12,377	-54.9		265	32.4
175	26	13,217	-61.1		266	29.7
150	26	14,161	-67.0		266	25.6
125	26	15,248	-71.8		271	19.6
100	26	16,558	-72.8		290	10.1
80	23	17,876	-68.9		38	3.5
70	22	18,682	-66.1		83	7.0
60	22	19,622	-61.9		85	8.9
50	22	20,760	-58.9		92	10.1
40	22	22,172	-55.9		89	12.6
30	21	24,017	-53.2		89	15.9
25	20	25,202	-51.4		89	15.0
20	19	26,656	-49.1		90	16.7
15	9	28,578	-46.9			
10						

ELY, NEV.
811 MB

Standard pressure surface (mb)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind Direction	Wind Speed
SURFACE	30	1,908	6.1	42	190	7.0
1000	30	144				
950	30	580				
900	30	1,039				
850	30	1,517				
800	30	2,021	12.5	34	186	7.0
750	30	2,561	12.7	29	195	7.6
700	30	3,140	8.7	31	236	9.3
650	30	3,743	4.0	34	243	11.1
600	30	4,393	- 1.1	37	245	10.1
550	29	5,073	- 5.6	30	255	13.0
500	29	5,820	-10.6		258	14.0
450	29	6,614	-16.3		259	17.7
400	29	7,498	-23.1		259	19.0
350	29	8,462	-30.6		260	22.3
300	29	9,539	-38.9		267	27.2
250	29	10,768	-47.4		264	34.6
200	29	12,221	-54.1		264	41.4
175	29	13,071	-57.3		270	34.6
150	29	14,039	-61.0		262	38.9
125	29	15,166	-63.4		266	28.4
100	29	16,529	-65.6		267	19.0
80	29	17,891	-64.2		276	8.7
70	29	18,724	-62.3		273	6.0
60	28	19,668	-59.8		264	1.4
50	28	20,813	-58.1		70	2.1
40	28	22,227	-56.0		62	4.1
30	28	24,070	-53.2		76	2.5
25	28	25,251	-51.3		47	1.7
20	27	26,706	-49.4		85	1.7
15	23	28,598	-46.9		225	1.0
10	9	31,264	-45.2			

FAIRBANKS, ALASKA
992 MB

Standard pressure surface (mb)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind Direction	Wind Speed
SURFACE	30	135	3.3	87	325	1.6
1000	30	66	1.6			
950	30	483	4.0	63	257	2.7
900	30	921	1.5	63	219	6.6
850	30	1,380	- 1.2	64	221	6.8
800	30	1,861	- 4.0	64	220	8.4
750	30	2,364	- 7.1	63	214	10.3
700	30	2,902	-10.5	64	217	12.0
650	30	3,463	-14.1	61	223	12.2
600	30	4,073	-17.9	56	223	13.6
550	30	4,710	-22.2	52	224	14.8
500	30	5,413	-26.8	47	233	16.3
450	30	6,156	-32.1	46	230	20.4
400	30	6,987	-38.3		234	22.3
350	29	7,896	-44.8		236	23.7
300	29	8,911	-51.7		238	28.4
250	29	10,081	-54.3		241	29.9
200	29	11,523	-50.8		247	26.8
175	29	12,395	-49.7		244	26.0
150	28	13,407	-50.1		244	26.2
125	28	14,595	-50.5		243	25.1
100	28	16,050	-50.5		247	20.6
80	28	17,504	-50.6		254	21.0
70	26	18,364	-51.1		253	20.8
60	26	19,366	-51.5		257	20.4
50	25	20,553	-52.3		259	19.4
40	24	21,995	-52.5		258	19.8
30	21	23,853	-52.2		261	21.2
25	19	25,050	-51.6		266	22.0
20	18	26,497	-50.3		267	23.9
15	14	28,381	-49.4		263	26.2
10	10	31,057	-44.3			
7	5	33,440	-42.3			
5						

FLINT, MICH.
991 MB

Standard pressure surface (mb)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind Direction	Wind Speed
SURFACE	30	234	10.4	94	264	1.7
1000	30	154				
950	30	587	12.6	67	284	5.2
900	30	1,038	9.9	64	296	9.1
850	30	1,511	7.3	60	291	11.3
800	30	2,008	5.0	51	288	13.4
750	30	2,534	3.5	40	283	15.7
700	30	3,091	.7	42	281	18.7
650	30	3,677	- 2.3	37	279	21.8
600	30	4,314	- 6.2		281	25.3
550	30	4,982	-10.4		280	27.8
500	29	5,721	-15.[illegible]		278	31.1
450	29	6,503	-20.3		277	35.6
400	29	7,372	-26.5		275	39.6
350	29	8,323	-33.4		277	46.2
300	29	9,388	-41.[illegible]		277	52.1
250	29	10,608	-47.9		279	58.3
200	29	12,063	-52.8		278	59.8
175	29	12,920	-55.1		278	56.3
150	29	13,898	-57.6		276	48.2
125	29	15,043	-59.5		277	35.8
100	29	16,437	-59.[illegible]		278	26.8
80	29	17,836	-58.6		282	16.1
70	29	18,682	-57.4		280	14.4
60	29	19,655	-56.0		277	8.2
50	29	20,818	-55.0		285	4.1
40	29	22,250	-53.1		276	2.3
30	28	24,117	-50.7		263	2.3
25	28	25,310	-48.9		284	2.5
20	28	26,783	-46.9		290	1.7
15	26	28,710	-44.5		264	1.9
10	10	31,426	-41.7			
7						
5						

FORT WORTH, TEXAS
995 MB

Standard pressure surface (mb)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind Direction	Wind Speed
SURFACE	30	180	21.0	87	154	1.0
1000	30	135				
950	30	582	21.3	77	185	8.9
900	30	1,051	19.6	75	197	10.9
850	30	1,542	17.0	72	203	8.2
800	30	2,058	14.1	68	211	5.6
750	30	2,596	11.2	59	231	5.1
700	30	3,175	8.0	54	238	4.5
650	30	3,777	4.5	47	241	5.6
600	30	4,431	.8	45	249	7.6
550	30	5,119	- 3.1	42	261	10.3
500	30	5,874	- 7.3	38	271	11.9
450	30	6,684	-12.7	36	275	13.6
400	30	7,576	-18.4	35	276	16.7
350	30	8,560	-25.2		274	20.4
300	30	9,661	-33.5		278	23.3
250	30	10,914	-43.3		276	28.4
200	30	12,380	-54.6		280	29.9
175	30	13,223	-60.5		281	29.5
150	30	14,170	-66.3		281	26.0
125	30	15,262	-71.0		291	22.2
100	29	16,573	-71.7		305	12.2
80	27	17,898	-67.8		5	3.7
70	27	18,716	-64.7		64	5.6
60	26	19,652	-61.0		83	6.0
50	26	20,793	-57.8		89	7.0
40	26	22,207	-55.1		85	10.1
30	26	24,056	-52.0		91	13.0
25	26	25,241	-50.2		92	12.4
20	26	26,705	-48.0		85	11.7
15	23	28,607	-46.0		71	9.5
10	6	31,364	-40.1			
7						
5						

GLASGOW, MONT.
935 MB

Standard pressure surface (mb)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind Direction	Wind Speed
SURFACE	30	696	8.3	66	66	2.3
1000	30	128				
950	30	556				
900	30	1,010	12.7	52	227	4.5
850	30	1,488	11.0	49	279	8.9
800	30	1,991	7.8	51	294	11.5
750	30	2,519	4.3	51	292	11.7
700	30	3,079	1.3	45	289	13.8
650	30	3,669	- 2.0	41	281	15.5
600	30	4,304	- 5.6	40	284	18.1
550	30	4,972	- 9.6	38	278	21.6
500	30	5,710	-14.4		282	22.9
450	30	6,493	-20.0		289	26.0
400	30	7,365	-26.4	36	283	29.0
350	30	8,315	-33.9		283	30.3
300	30	9,376	-42.2		284	34.0
250	30	10,584	-50.9		283	36.9
200	30	12,016	-55.4		286	38.7
175	30	12,866	-56.1		285	38.7
150	30	13,843	-57.0		286	35.0
125	30	14,993	-58.2		286	32.6
100	30	16,395	-58.5		287	25.8
80	29	17,801	-57.3		290	18.3
70	29	18,650	-57.1		290	12.4
60	29	19,622	-56.2		294	8.4
50	29	20,783	-55.2		290	7.2
40	24	22,216	-54.0		294	7.8
30	24	24,065	-52.9		317	4.7
25	23	25,243	-51.5		302	4.5
20	18	26,712	-48.7		321	5.8
15	5	28,574	-46.9			
10						
7						
5						

GRAND JUNCTION, COLO.
853 MB

Standard pressure surface (mb)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind Direction	Wind Speed
SURFACE	30	1,474	14.1	43	125	4.9
1000	30	110				
950	30	550				
900	30	1,017				
850	30	1,507	15.1	38	126	5.2
800	30	2,023	15.5	37	146	8.4
750	30	2,567	12.8	38	229	4.3
700	30	3,143	8.5	40	260	8.0
650	30	3,750	3.6	43	257	10.7
600	30	4,394	- 1.6	50	259	12.6
550	30	5,075	- 6.3	46	264	15.9
500	30	5,820	-10.8	39	269	19.0
450	30	6,614	-16.3		267	19.4
400	30	7,498	-22.8		273	26.2
350	30	8,463	-29.9		274	33.2
300	29	9,541	-38.3		272	41.8
250	29	10,770	-46.9		271	47.6
200	29	12,223	-54.2		269	52.8
175	29	13,072	-57.6		271	50.9
150	28	14,037	-61.4		268	43.5
125	28	15,157	-64.8		268	35.6
100	28	16,512	-66.2		279	21.0
80	28	17,869	-64.1		287	9.1
70	28	18,698	-62.1		278	3.3
60	28	19,647	-60.0		347	1.0
50	27	20,792	-57.6		30	3.3
40	27	22,206	-55.6		85	4.1
30	27	24,050	-52.9		53	3.1
25	26	25,236	-50.8		63	4.9
20	25	26,692	-48.7		58	2.3
15	22	28,594	-46.4		49	2.1
10	21	31,312	-43.0		62	4.7
7	17	33,733	-39.8		37	5.2
5	7	36,032	-37.0			

See reference note at end of table

RAWINSONDE DATA

Average monthly values

SEPTEMBER 1962

GREAT FALLS, MONT.
889 MB

Standard pressure surface (mb.)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind	
					Direction	Speed
SURFACE	30	1,123	8.3	63	238	5.8
1000	30	132				
950	30	561				
900	30	1,018				
850	30	1,494	11.2	46	241	11.3
800	30	1,997	8.9	47	258	8.2
750	30	2,524	5.1	50	261	11.3
700	30	3,088	1.8	46	270	14.8
650	30	3,679	- 1.7	43	275	18.8
600	30	4,314	- 5.4	38	278	21.6
550	30	4,983	- 9.4	36	276	21.4
500	30	5,722	-13.9		273	21.8
450	30	6,507	-19.4		260	24.7
400	30	7,379	-26.0	35	271	26.4
350	30	8,331	-33.0		264	31.9
300	30	9,396	-41.3		271	35.0
250	30	10,610	-49.9		276	37.1
200	28	12,061	-54.7		274	38.3
175	28	12,912	-56.7		273	38.5
150	28	13,886	-58.1		274	41.4
125	26	15,035	-58.7		277	35.4
100	26	16,434	-59.4		277	29.5
80	26	17,833	-58.1		280	19.6
70	25	18,679	-57.2		274	14.4
60	24	19,648	-56.8		270	10.5
50	24	20,805	-55.8		278	9.1
40	24	22,227	-54.3		278	9.1
30	22	24,077	-52.9		273	6.2
25	20	25,257	-51.4		268	5.8
20	18	26,714	-49.5		293	6.4
15	17	28,614	-47.1		273	9.9
10	14	31,315	-42.8		277	13.2
7	8	33,692	-39.6			
5	5	36,085	-35.9			

GREEN BAY, WIS.
992 MB

Standard pressure surface (mb.)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind	
					Direction	Speed
SURFACE	30	210	9.9	91	282	1.7
1000	30	141				
950	30	572	12.1	69	277	6.2
900	30	1,022	9.4	69	286	8.4
850	30	1,494	6.4	70	282	9.9
800	30	1,990	4.5	55	285	11.9
750	30	2,514	2.3	48	284	15.3
700	30	3,068	- .6	40	284	18.7
650	30	3,653	- 3.7	34	285	20.8
600	30	4,285	- 7.3		285	24.3
550	30	4,950	-11.2		287	25.8
500	30	5,685	-15.5		289	28.4
450	30	6,463	-21.1		293	31.7
400	30	7,330	-27.3		292	35.8
350	30	8,278	-34.4		291	40.0
300	30	9,339	-42.2		289	44.3
250	30	10,554	-48.6		288	52.7
200	30	12,006	-52.6		285	52.8
175	30	12,866	-54.2		283	49.0
150	30	13,849	-56.3		282	44.3
125	30	15,003	-58.2		283	35.2
100	30	16,405	-58.7		284	27.6
80	30	17,809	-57.7		283	19.4
70	30	18,655	-56.8		287	16.1
60	30	19,632	-55.5		294	12.4
50	30	20,796	-54.9		299	6.8
40	29	22,222	-53.4		292	5.1
30	29	24,081	-51.2		277	4.9
25	29	25,270	-49.5		286	4.1
20	26	26,742	-47.7		284	3.9
15	21	28,662	-45.3		264	3.3
10	6	31,412	-40.3			
7						
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GREENSBORO, N. C.
987 MB

Standard pressure surface (mb.)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind	
					Direction	Speed
SURFACE	29	273	15.3	91	15	1.4
1000	29	160				
950	29	599	16.9	74	335	2.1
900	29	1,059	15.2	69	283	4.9
850	29	1,542	12.5	71	268	8.4
800	29	2,050	10.2	69	271	10.7
750	29	2,582	7.9	58	260	12.6
700	29	3,153	5.3	49	267	15.0
650	29	3,751	2.6		263	18.5
600	29	4,399	- 1.1		266	22.2
550	29	5,082	- 5.1		263	23.3
500	29	5,832	- 9.3		264	28.2
450	29	6,633	-14.5		266	29.0
400	29	7,523	-20.6		265	34.2
350	29	8,497	-27.5		264	37.7
300	29	9,588	-35.7		266	38.3
250	29	10,830	-45.2		268	42.6
200	29	12,287	-55.0		278	43.3
175	29	13,131	-59.2		278	41.6
150	28	14,086	-63.4		275	35.9
125	28	15,195	-67.1		275	27.4
100	28	16,539	-66.9		273	20.0
80	28	17,898	-63.9		282	7.4
70	28	18,727	-61.8		285	5.4
60	28	19,682	-59.2		330	1.9
50	28	20,833	-56.7		123	2.5
40	28	22,258	-53.8		89	8.0
30	27	24,118	-51.3		90	8.7
25	25	25,304	-49.7		77	10.1
20	24	26,780	-47.9		95	7.2
15	20	28,701	-45.2		80	11.7
10	11	31,468	-42.4			
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GUAM, MARIANA IS.
997 MB

Standard pressure surface (mb.)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind	
					Direction	Speed
SURFACE	30	111	24.8	95	102	1.4
1000	30	85				
950	30	538	23.9	81	100	6.0
900	30	1,009	21.3	79	104	5.4
850	30	1,504	18.7	76	92	5.4
800	30	2,023	16.1	73	81	5.4
750	30	2,570	13.2	70	79	6.2
700	30	3,149	10.0	66	86	7.4
650	30	3,761	6.5	65	81	6.6
600	30	4,415	2.7	66	78	8.2
550	30	5,110	- 1.2	58	80	8.5
500	30	5,870	- 5.6	58	79	7.8
450	29	6,686	-10.6	54	95	8.2
400	29	7,588	-16.1	53	94	7.6
350	29	8,581	-22.7	41	81	7.2
300	29	9,693	-31.0		64	4.1
250	29	10,959	-41.4		39	2.5
200	29	12,433	-53.9		33	.8
175	28	13,276	-61.0		82	1.2
150	28	14,216	-68.6		82	5.1
125	28	15,285	-76.1		87	10.1
100	26	16,559	-78.0		86	15.3
80	24	17,853	-72.6		83	19.8
70	22	18,644	-69.2		86	23.9
60	20	19,576	-65.8		90	25.3
50	18	20,690	-62.8		91	30.9
40	18	22,079	-58.7		88	37.7
30	15	23,899	-55.8		88	51.9
25	14	25,078	-52.6		87	56.3
20	12	26,532	-49.3		87	64.5
15	12	28,434	-45.8		79	71.5
10	7	31,177	-41.4			
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HILO, HAWAII
1015 MB

Standard pressure surface (mb.)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind	
					Direction	Speed
SURFACE	30	11	21.1	88	239	4.5
1000	30	143	22.0	82	244	2.9
950	30	589	19.4	83	90	5.1
900	30	1,052	16.0	84	83	8.2
850	30	1,536	13.0	86	80	7.2
800	30	2,045	10.6	82	84	6.4
750	30	2,588	9.1	48	96	7.6
700	30	3,153	8.7		89	5.2
650	30	3,763	5.8		80	2.9
600	30	4,414	2.5		69	2.1
550	30	5,104	- 1.6			.0
500	30	5,866	- 6.0		230	1.9
450	30	6,678	-11.3		249	3.3
400	30	7,576	-17.7		243	8.0
350	29	8,561	-25.0		241	11.9
300	29	9,663	-33.6		233	18.1
250	29	10,915	-43.8		236	24.5
200	29	12,375	-55.6		233	29.1
175	29	13,214	-61.6		233	29.5
150	29	14,156	-67.0		229	25.1
125	29	15,243	-71.9		221	16.7
100	28	16,549	-73.7		161	6.6
80	27	17,864	-70.2		97	14.0
70	27	18,661	-67.5		99	20.0
60	27	19,596	-64.1		94	23.5
50	26	20,724	-60.9		91	27.8
40	26	22,124	-57.6		90	33.0
30	25	23,960	-53.5		89	39.8
25	25	25,139	-51.5		91	42.4
20	23	26,596	-49.0		92	45.5
15	20	28,489	-46.4		93	44.3
10	8	31,164	-43.3			
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HUNTINGTON, W. VA.
990 MB

Standard pressure surface (mb.)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind	
					Direction	Speed
SURFACE	30	246	13.1	91	205	1.2
1000	30	157				
950	30	592	15.6	71	242	4.3
900	30	1,051	13.6	65	273	6.6
850	30	1,529	10.8	64	283	10.1
800	30	2,033	8.5	58	286	12.6
750	30	2,560	6.3	49	282	14.0
700	30	3,128	3.7	45	280	15.7
650	30	3,723	.6	42	279	17.5
600	30	4,366	- 2.9	41	277	20.6
550	30	5,042	- 6.9		278	22.7
500	30	5,789	-11.5		277	26.2
450	30	6,581	-16.8		279	27.0
400	30	7,463	-23.0	39	273	29.7
350	30	8,429	-29.9	37	268	36.5
300	30	9,511	-37.6		272	40.8
250	30	10,748	-45.8		274	47.4
200	30	12,205	-54.2		280	50.3
175	30	13,055	-57.7		279	48.2
150	30	14,019	-61.5		282	40.8
125	30	15,140	-64.7		278	31.5
100	30	16,501	-64.3		277	21.8
80	29	17,871	-61.9		283	14.4
70	29	18,707	-60.2		286	9.1
60	29	19,668	-58.1		281	5.1
50	28	20,820	-55.3		273	3.3
40	28	22,251	-53.3		291	1.6
30	28	24,116	-50.6		338	1.6
25	28	25,310	-48.8		17	1.4
20	25	26,781	-47.0		82	3.1
15	[illegible]	28,698	-45.2			
10						
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INTERNAT. FALLS, MINN.
974 MB

Standard pressure surface (mb.)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind	
					Direction	Speed
SURFACE	30	360	7.1	88	242	1.4
1000	30	138				
950	30	558	9.2	77	244	4.7
900	30	1,010	7.7	71	286	9.5
850	30	1,479	5.3	66	283	9.9
800	30	1,973	4.1	45	287	11.3
750	30	2,494	1.9	42	285	13.6
700	30	3,050	- 1.0	42	287	15.0
650	30	3,629	- 4.5	42	287	17.7
600	30	4,263	- 8.4		291	21.0
550	30	4,922	-12.4		295	23.1
500	30	5,655	-17.0		292	24.9
450	30	6,430	-22.6		293	29.9
400	30	7,293	-28.8		292	30.9
350	30	8,235	-35.8		286	29.9
300	30	9,290	-43.4		281	37.9
250	30	10,498	-50.4		281	41.2
200	30	11,938	-54.3		278	45.1
175	30	12,794	-54.4		284	44.1
150	30	13,780	-55.2		282	39.2
125	30	14,941	-56.4		282	32.4
100	30	16,356	-57.0		282	25.3
80	30	17,771	-56.0		282	18.7
70	30	18,623	-55.8		285	15.9
60	30	19,603	-54.7		291	12.6
50	29	20,775	-53.9		291	10.1
40	29	22,209	-53.4		310	5.8
30	28	24,065	-51.8		299	6.6
25	28	25,250	-50.7		310	5.2
20	24	26,703	-48.7		297	7.8
15	21	28,599	-45.9		293	7.6
10	17	31,334	-41.7		272	8.9
7	15	33,776	-38.0		286	10.3
5	6	36,144	-34.1			

JACKSON, MISS.
1005 MB

Standard pressure surface (mb.)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind	
					Direction	Speed
SURFACE	30	94	19.7	88	68	1.4
1000	30	141	20.2	85	87	1.9
950	30	587	21.2	70	158	2.7
900	30	1,054	18.6	69	171	2.1
850	30	1,544	16.2	67	251	1.4
800	30	2,058	13.6	63	323	1.2
750	30	2,598	11.1	57	311	2.7
700	30	3,174	7.7	56	315	5.1
650	30	3,779	4.1	50	313	6.4
600	30	4,429	.5	47	308	8.4
550	30	5,119	- 3.2	42	297	10.1
500	30	5,871	- 7.6	37	289	11.3
450	30	6,682	-12.5	31	292	13.0
400	30	7,574	-18.5		292	15.5
350	30	8,557	-25.5		286	18.1
300	30	9,657	-33.9		288	20.2
250	30	10,910	-43.7		289	24.5
200	30	12,374	-54.7		290	28.4
175	30	13,217	-60.4		291	28.8
150	30	14,166	-66.0		295	24.1
125	30	15,259	-70.7		296	19.6
100	30	16,581	-70.5		311	10.9
80	30	17,914	-66.9		15	3.5
70	30	18,735	-63.8		67	4.7
60	30	19,679	-60.2		86	6.4
50	30	20,825	-56.9		87	8.7
40	30	22,245	-54.9		82	11.7
30	29	24,097	-51.6		84	15.2
25	28	25,283	-49.5		85	15.9
20	27	26,750	-48.1		88	15.5
15	23	28,654	-45.8		79	16.1
10	9	31,355	-42.6			
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JACKSONVILLE, FLA.
1016 MB

Standard pressure surface (mb.)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind	
					Direction	Speed
SURFACE	30	5	21.9	95	351	2.1
1000	30	145	22.8	85	309	1.2
950	30	592	21.1	79	187	2.5
900	30	1,060	18.7	75	185	2.9
850	30	1,550	16.1	74	215	3.9
800	30	2,064	13.5	73	231	3.3
750	30	2,607	10.8	70	251	3.9
700	30	3,179	7.7	61	254	3.5
650	30	3,781	4.7	52	256	4.5
600	30	4,437	1.1	50	266	4.7
550	30	5,124	- 2.7	42	266	4.7
500	30	5,883	- 7.2	36	286	5.8
450	30	6,690	-12.4	37	282	7.2
400	30	7,588	-18.3	36	290	8.5
350	30	8,571	-25.3		300	9.7
300	30	9,671	-33.9		302	13.4
250	30	10,922	-43.6		304	15.7
200	30	12,386	-54.9		309	18.8
175	30	13,228	-60.3		311	16.7
150	30	14,175	-66.0		306	14.0
125	30	15,268	-70.2		308	14.0
100	30	16,588	-71.0		339	5.1
80	30	17,920	-66.3		56	2.9
70	29	18,741	-63.7		91	5.8
60	29	19,690	-60.3		92	11.9
50	29	20,834	-57.3		96	12.8
40	29	22,252	-54.8		88	19.0
30	29	24,104	-51.7		88	21.6
25	25	25,293	-49.7		90	21.0
20	24	26,764	-47.3		87	20.6
15	23	28,681	-44.3		84	22.3
10	19	31,432	-40.7		81	26.4
7	12	33,869	-37.5		92	31.5
5	5	36,199	-36.7			

KING SALMON, ALASKA
1005 MB

Standard pressure surface (mb.)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind	
					Direction	Speed
SURFACE	30	15	4.8	87	72	2.9
1000	30	52	6.0	79	82	2.1
950	30	472	4.7	72	99	2.3
900	30	911	1.9	73	156	1.4
850	30	1,370	- .8	71	202	1.4
800	30	1,853	- 3.3	65	220	3.5
750	30	2,360	- 5.6	61	244	6.0
700	30	2,900	- 8.2	58	244	8.7
650	30	3,469	-11.4	55	243	9.9
600	30	4,082	-15.2	54	247	12.4
550	30	4,731	-19.2	45	246	13.8
500	30	5,438	-23.9	44	249	15.2
450	30	6,192	-29.5	43	250	17.1
400	30	7,031	-35.5		249	19.8
350	30	7,947	-42.1		251	24.7
300	30	8,976	-48.6		255	27.4
250	30	10,166	-51.4		260	32.3
200	30	11,617	-50.5		263	32.6
175	30	12,488	-50.0		263	30.7
150	30	13,494	-50.6		261	29.0
125	29	14,682	-50.9		258	25.5
100	26	16,146	-51.6		261	22.9
80	26	17,594	-52.1		262	22.3
70	26	18,465	-51.7		263	20.8
60	26	19,460	-52.3		259	18.8
50	26	20,638	-52.7		260	18.1
40	26	22,082	-52.0		263	16.3
30	25	23,941	-51.2		262	18.8
25	24	25,133	-50.4		265	20.2
20	22	26,587	-49.4		264	18.3
15	13	28,485	-47.5		267	24.1
10						
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KOTZEBUE, ALASKA
1006 MB

Standard pressure surface (mb.)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind	
					Direction	Speed
SURFACE	29	5	3.6	86	117	2.7
1000	29	50	2.5	85	199	2.7
950	29	464	1.2	79	167	4.7
900	29	898	- 1.6	79	209	5.6
850	29	1,351	- 4.6	80	195	6.2
800	29	1,826	- 7.4	77	195	7.8
750	29	2,325	-10.3	72	197	8.9
700	29	2,854	-13.3	67	199	9.3
650	29	3,407	-16.7	61	210	9.1
600	29	4,011	-20.6	57	210	9.9
550	29	4,639	-24.8	49	218	11.3
500	29	5,336	-29.4	51	231	11.3
450	29	6,072	-34.7	52	236	11.1
400	29	6,892	-40.4		231	12.4
350	29	7,790	-46.5		245	13.4
300	29	8,799	-52.4		242	15.9
250	29	9,971	-53.3		241	19.0
200	29	11,420	-49.9		248	20.6
175	29	12,295	-49.3		251	20.4
150	29	13,305	-49.5		251	19.6
125	29	14,497	-50.0		253	18.3
100	29	15,953	-50.3		252	16.7
80	29	17,409	-50.5		257	16.9
70	29	18,273	-51.4		256	15.7
60	29	19,277	-52.1		257	16.3
50	29	20,456	-52.6		258	17.5
40	29	21,896	-52.9		259	17.1
30	29	23,751	-52.6		257	19.2
25	29	24,930	-52.0		260	22.2
20	28	26,380	-51.0		264	23.7
15	21	28,236	-49.7		260	24.1
10	6	30,843	-47.3			
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LAKE CHARLES, LA.
1015 MB

Standard pressure surface (mb.)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind	
					Direction	Speed
SURFACE	29	5	21.9	95	70	3.5
1000	29	136	24.2	80	101	9.3
950	29	589	22.8	71	152	6.2
900	29	1,056	19.9	68	161	6.0
850	29	1,548	17.2	61	140	3.9
800	29	2,064	14.6	56	113	2.5
750	29	2,606	11.8	53	86	1.7
700	29	3,182	8.8	48	27	1.9
650	29	3,791	5.3	50	338	.8
600	29	4,443	1.6	47	322	1.9
550	29	5,135	- 2.2	39	309	3.7
500	29	5,892	- 6.4		302	4.5
450	29	6,707	-11.5		297	6.4
400	29	7,602	-17.6		294	8.2
350	29	8,588	-24.5		294	8.9
300	29	9,692	-32.9		295	11.5
250	29	10,949	-42.8		297	14.4
200	29	12,415	-54.6		290	15.2
175	29	13,258	-60.8		299	16.1
150	29	14,203	-66.8		302	12.6
125	29	15,289	-72.1		306	11.1
100	29	16,598	-72.8		343	6.4
80	29	17,921	-68.1		58	7.6
70	29	18,743	-64.6		88	8.5
60	29	19,680	-61.1		93	10.9
50	29	20,819	-58.2		89	14.0
40	29	22,235	-54.9		87	17.9
30	28	24,088	-51.8		90	20.4
25	26	25,270	-49.7		93	20.6
20	24	26,731	-48.0		93	21.8
15	13	28,650	-45.6		90	17.7
10						
7						
5						

LANDER, WYO.
831 MB

Standard pressure surface (mb.)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind	
					Direction	Speed
SURFACE	30	1,696	9.1	57	263	1.9
1000	30	126				
950	30	560				
900	30	1,020				
850	30	1,505				
800	30	2,011	11.4	46	295	2.3
750	30	2,546	8.9	45	291	3.9
700	30	3,116	5.7	42	275	8.7
650	30	3,712	1.9	39	274	14.0
600	30	4,358	- 2.8	39	269	19.6
550	30	5,031	- 7.5	36	271	22.0
500	30	5,778	-12.5	35	269	24.5
450	30	6,567	-18.1	32	271	25.3
400	30	7,445	-24.6		277	26.6
350	30	8,403	-31.9		279	29.1
300	30	9,473	-40.4		276	32.8
250	30	10,692	-48.6		273	37.5
200	30	12,139	-54.3		274	41.4
175	30	12,991	-56.5		271	42.4
150	30	13,964	-58.5		272	39.2
125	29	15,101	-61.2		274	35.8
100	29	16,483	-62.3		276	27.6
80	29	17,863	-61.5		278	15.0
70	29	18,688	-60.1		285	8.9
60	28	19,660	-58.3		289	5.6
50	28	20,812	-56.7		275	2.9
40	28	22,232	-55.0		24	1.4
30	26	24,083	-53.4		45	2.5
25	22	25,271	-51.4		12	2.7
20	17	26,729	-49.0		327	3.5
15	5	28,648	-46.3			
10						
7						
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LAS VEGAS, NEV.
936 MB

Standard pressure surface (mb.)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind	
					Direction	Speed
SURFACE	30	660	21.7	27	224	5.1
1000	30	76				
950	30	525				
900	30	1,000	25.3	23	231	4.1
850	30	1,499	22.5	25	231	6.0
800	30	2,022	18.5	30	226	7.6
750	30	2,571	14.2	33	212	6.4
700	30	3,148	9.6	35	204	8.7
650	30	3,753	5.1	33	202	9.9
600	30	4,406	.6		220	8.9
550	30	5,090	- 3.9		241	10.3
500	30	5,845	- 8.5		254	14.4
450	30	6,644	-14.5		261	17.3
400	30	7,533	-21.0		261	21.6
350	30	8,506	-28.0		261	28.0
300	30	9,595	-35.9		263	34.4
250	30	10,838	-44.6		263	40.4
200	30	12,301	-53.5		264	44.9
175	30	13,151	-57.9		259	43.1
150	30	14,114	-62.2		259	38.5
125	30	15,227	-66.4		262	28.4
100	30	16,571	-67.7		270	16.1
80	30	17,918	-65.7		278	5.2
70	28	18,736	-64.0		5	1.2
60	28	19,684	-61.0		82	2.9
50	28	20,824	-58.3		84	6.0
40	28	22,238	-55.6		80	7.0
30	28	24,084	-52.6		79	7.2
25	27	25,267	-50.7		79	7.4
20	26	26,721	-48.7		76	6.8
15	12	28,618	-47.1			
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LIHUE, HAWAII
1013 MB

Standard pressure surface (mb.)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind	
					Direction	Speed
SURFACE	30	36	24.2	75	56	9.5
1000	30	150	23.3	75	61	12.0
950	30	596	19.6	78	68	14.6
900	30	1,060	15.8	81	74	15.9
850	30	1,544	12.7	77	77	15.7
800	30	2,051	10.7	66	80	15.0
750	30	2,590	9.5	38	87	13.2
700	30	3,159	7.7		96	8.7
650	30	3,765	5.1		102	4.9
600	30	4,416	1.5		124	1.2
550	30	5,106	- 2.7		240	1.4
500	30	5,860	- 7.4		238	5.1
450	30	6,669	-13.1		233	7.2
400	30	7,560	-19.7		243	11.1
350	30	8,537	-26.8		243	16.5
300	30	9,630	-35.4		245	21.0
250	30	10,875	-45.0		241	27.2
200	29	12,330	-56.0		245	34.4
175	28	13,168	-61.5		245	33.2
150	28	14,114	-65.5		237	27.8
125	27	15,215	-68.6		241	22.5
100	27	16,541	-71.0		224	12.4
80	27	17,867	-69.2		121	7.8
70	26	18,668	-66.9		100	13.4
60	25	19,603	-63.6		91	20.6
50	25	20,729	-60.5		90	25.5
40	25	22,131	-57.3		87	30.3
30	25	23,966	-53.4		90	34.6
25	25	25,147	-50.8		92	37.3
20	24	26,611	-49.1		93	38.7
15	22	28,509	-46.4		93	35.0
10	19	31,220	-43.2		87	37.3
7	12	33,647	-40.0		86	43.1
5	7	35,946	-36.7			

See reference note at end of table

RAWINSONDE DATA

Average monthly values

LITTLE ROCK, ARK.
1008 MB

Standard pressure surface (mb.)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind Direction	Wind Speed
SURFACE	30	79	18.8	87	28	1.7
1000	30	145	19.3	84	48	2.7
950	30	586	19.5	72	154	2.9
900	30	1,054	17.4	73	221	4.9
850	30	1,542	15.1	73	246	7.0
800	30	2,055	12.8	68	265	6.6
750	30	2,591	10.1	59	278	7.2
700	30	3,167	7.1	55	283	7.6
650	30	3,765	3.6	52	282	9.7
600	30	4,420	- .3	50	288	11.9
550	30	5,101	- 4.0	40	285	15.2
500	30	5,860	- 8.2	38	281	17.1
450	30	6,664	-13.3	36	282	20.2
400	30	7,560	-19.3	37	284	23.9
350	30	8,540	-26.2		280	31.1
300	30	9,635	-34.5		285	31.7
250	28	10,882	-44.5		286	35.9
200	28	12,343	-54.8		289	39.6
175	28	13,186	-59.9		288	35.9
150	27	14,141	-65.4		290	32.4
125	27	15,240	-69.2		289	23.1
100	27	16,570	-69.2		301	15.3
80	27	17,914	-65.8		335	5.1
70	27	18,732	-63.1		14	2.9
60	27	19,687	-60.0		49	3.7
50	27	20,833	-57.3		70	4.9
40	27	22,254	-54.8		84	7.0
30	26	24,107	-52.0		82	9.7
25	25	25,296	-50.0		82	11.3
20	22	26,763	-47.7		86	10.7
15	18	28,659	-45.8		82	7.4
10	9	31,320	-42.1			
7						
5						

MCGRATH, ALASKA
996 MB

Standard pressure surface (mb.)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind Direction	Wind Speed
SURFACE	29	103	2.5	86	234	.6
1000	29	69	3.9		245	2.1
950	29	484	3.1	69	215	2.7
900	29	921	.7	68	210	5.2
850	29	1,378	- 2.2	68	213	6.4
800	29	1,857	- 4.9	65	221	7.6
750	29	2,357	- 7.8	62	224	7.6
700	29	2,895	-11.0	59	229	8.7
650	29	3,451	-14.4	58	232	9.1
600	29	4,064	-18.2	48	234	11.5
550	29	4,698	-22.6	44	232	13.2
500	29	5,401	-26.9	43	229	16.7
450	29	6,141	-32.1	39	229	18.1
400	29	6,975	-38.0		227	18.5
350	29	7,882	-44.5		232	19.0
300	28	8,905	-50.8		238	25.5
250	28	10,086	-52.1		248	28.0
200	28	11,538	-49.5		254	25.5
175	28	12,413	-49.2		255	24.9
150	28	13,423	-49.5		249	25.1
125	28	14,615	-50.0		255	20.2
100	27	16,063	-49.9		255	20.8
80	27	17,520	-50.6		255	20.6
70	27	18,386	-50.7		254	21.2
60	26	19,381	-51.1		255	19.2
50	26	20,566	-51.5		258	18.3
40	24	22,024	-51.7		261	19.6
30	24	23,889	-51.6		262	21.4
25	23	25,080	-50.7		270	18.8
20	20	26,544	-49.9		268	25.6
15	13	28,429	-48.1			
10						
7						
5						

MAJURO, MARSHALL IS.
1010 MB

Standard pressure surface (mb.)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind Direction	Wind Speed
SURFACE	30	3	27.0	83	70	5.2
1000	30	92	26.4	82	79	6.0
950	30	539	23.6	80	97	8.9
900	30	1,016	20.7	79	101	11.5
850	30	1,509	17.9	76	100	12.2
800	30	2,027	15.2	75	98	12.4
750	30	2,569	12.4	74	96	13.4
700	30	3,150	9.4	72	91	14.2
650	30	3,760	6.1	69	88	14.6
600	30	4,416	2.4	70	85	13.8
550	30	5,111	- 1.3	68	91	14.0
500	28	5,871	- 5.6	64	96	12.0
450	28	6,689	-10.2	60	96	8.7
400	28	7,592	-15.7	48	100	11.1
350	28	8,586	-22.6	48	90	11.5
300	28	9,699	-30.8	43	87	10.7
250	28	10,966	-41.2		78	9.1
200	28	12,443	-53.9		76	6.2
175	28	13,286	-61.0		71	3.1
150	28	14,227	-68.5		13	2.5
125	28	15,299	-76.1		279	2.1
100	26	16,579	-77.7		77	1.9
80	26	17,874	-72.5		107	7.6
70	26	18,663	-69.2		99	6.2
60	25	19,592	-66.3		88	9.1
50	25	20,705	-63.0		89	17.7
40	24	22,086	-60.6		88	34.0
30	24	23,892	-56.8		89	55.4
25	24	25,055	-54.2		88	58.1
20	24	26,496	-50.8		89	69.8
15	24	28,389	-46.6		88	72.9
10	18	31,114	-42.2		89	62.8
7	5	33,487	-36.6			
5						

MEDFORD, OREG.
968 MB

Standard pressure surface (mb.)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind Direction	Wind Speed
SURFACE	30	401	10.7	78	250	.8
1000	30	130				
950	30	566	15.1	61	276	2.7
900	30	1,020	15.4	53	243	1.0
850	30	1,504	14.2	48	154	2.9
800	30	2,014	12.1	39	185	3.5
750	30	2,549	9.1	37	215	8.0
700	30	3,120	5.8	32	233	10.9
650	30	3,718	2.1	31	239	12.6
600	30	4,365	- 2.2		243	14.0
550	30	5,040	- 6.6		248	13.4
500	30	5,789	-11.8		248	13.8
450	30	6,578	-17.6		254	15.5
400	30	7,459	-24.4		257	17.7
350	30	8,419	-31.8		258	18.1
300	30	9,490	-40.1		260	18.7
250	30	10,712	-48.5		261	19.6
200	30	12,159	-54.2		260	25.1
175	30	13,011	-56.5		261	28.6
150	30	13,984	-58.8		259	30.3
125	30	15,122	-61.1		267	24.7
100	30	16,502	-62.6		261	20.6
80	30	17,981	-61.0		271	13.0
70	29	18,721	-59.5		270	7.8
60	29	19,686	-58.3		271	5.8
50	29	20,836	-56.9		293	3.5
40	29	22,255	-55.2		273	2.1
30	27	24,105	-52.5		326	1.7
25	27	25,288	-50.7		319	1.4
20	27	26,747	-49.0		308	1.9
15	25	28,659	-46.7		355	2.9
10	24	31,377	-43.3		67	1.4
7	23	33,792	-40.4		223	2.3
5	18	36,086	-37.3			

MIAMI, FLA.
1015 MB

Standard pressure surface (mb.)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind Direction	Wind Speed
SURFACE	30	4	24.8	86	43	1.4
1000	30	134	26.0	81	90	3.1
950	30	587	23.2	79	126	7.8
900	30	1,057	20.0	77	138	7.0
850	30	1,550	17.0	71	153	5.8
800	30	2,066	14.1	66	160	4.9
750	30	2,602	11.0	61	167	4.5
700	30	3,183	7.7	58	178	4.3
650	30	3,787	4.4	57	173	3.7
600	30	4,439	.7	56	172	2.3
550	30	5,123	- 3.2	51	132	2.5
500	30	5,884	- 7.5	45	94	1.2
450	30	6,691	-12.4	41	64	3.5
400	30	7,590	-18.2	35	55	4.1
350	30	8,573	-25.2	36	38	6.2
300	30	9,674	-33.7		27	9.5
250	29	10,924	-43.7		14	14.8
200	29	12,387	-55.3		12	15.3
175	29	13,227	-61.3		357	16.1
150	29	14,171	-66.8		15	15.3
125	29	15,261	-71.2		30	11.5
100	29	16,577	-71.5		46	11.3
80	28	17,904	-68.5		81	12.0
70	28	18,715	-65.6		91	15.2
60	28	19,654	-62.7		89	19.6
50	28	20,788	-59.1		91	23.7
40	27	22,201	-54.9		90	25.6
30	23	24,060	-51.3		87	27.2
25	21	25,250	-49.0		84	28.6
20	18	26,727	-47.2		86	27.6
15	17	28,639	-44.8		79	26.2
10	15	31,373	-40.2		86	31.9
7	6	33,826	-36.7			
5						

MIDLAND, TEXAS
916 MB

Standard pressure surface (mb.)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind Direction	Wind Speed
SURFACE	30	874	18.0	85	127	3.7
1000	30	117				
950	30	566				
900	30	1,029	19.2	73	154	8.9
850	30	1,521	18.2	64	182	15.2
800	30	2,039	16.0	57	189	9.5
750	30	2,582	12.7	54	185	4.7
700	30	3,161	9.1	50	213	4.1
650	30	3,766	5.1	50	239	5.1
600	30	4,421	1.1	47	251	5.6
550	30	5,109	- 2.6	39	262	7.6
500	30	5,867	- 7.0	41	264	9.7
450	30	6,677	-12.2	41	261	12.4
400	30	7,572	-18.1	38	268	16.5
350	30	8,556	-25.1		272	19.4
300	30	9,657	-33.3		275	22.9
250	30	10,912	-43.0		278	27.4
200	29	12,380	-54.4		282	27.4
175	29	13,224	-60.7		282	26.4
150	29	14,169	-67.0		279	23.3
125	29	15,256	-71.5		282	19.2
100	28	16,574	-72.0		305	10.1
80	25	17,894	-68.5		69	4.1
70	24	18,711	-65.6		88	8.9
60	22	19,646	-61.7		93	9.9
50	22	20,782	-58.8		87	9.9
40	22	22,193	-55.8		87	13.2
30	22	24,038	-52.8		94	15.9
25	22	25,219	-50.7		90	14.6
20	22	26,681	-48.4		87	15.3
15	19	28,573	-46.6		86	16.1
10	18	31,288	-42.2		98	18.8
7	11	33,714	-39.0		96	21.0
5	9	36,051	-37.0			

MONTGOMERY, ALA.
1010 MB

Standard pressure surface (mb.)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind Direction	Wind Speed
SURFACE	30	61	20.4	86	75	2.7
1000	30	146	20.7	82	77	3.9
950	30	590	20.8	72	109	5.1
900	30	1,058	18.4	71	155	1.7
850	30	1,547	15.5	70	269	1.0
800	30	2,060	13.3	58	273	2.9
750	30	2,598	10.7	52	279	3.9
700	30	3,174	7.7	50	291	6.0
650	30	3,778	4.4	49	292	6.6
600	30	4,430	.8	48	282	8.5
550	30	5,119	- 3.1	44	286	9.5
500	30	5,874	- 7.5	40	284	11.9
450	30	6,683	-12.7	38	283	13.8
400	30	7,577	-18.2		291	15.7
350	30	8,560	-25.5		289	19.8
300	30	9,660	-33.9		286	22.0
250	30	10,912	-43.8		288	24.5
200	30	12,374	-55.0		292	26.4
175	30	13,216	-60.5		299	26.2
150	29	14,166	-65.8		295	22.7
125	28	15,261	-70.5		297	17.3
100	27	16,583	-70.8		308	9.5
80	27	17,916	-67.0		6	3.9
70	27	18,733	-63.9		72	4.5
60	27	19,680	-60.5		85	8.2
50	27	20,826	-56.8		90	9.7
40	27	22,248	-54.5		92	12.0
30	27	24,103	-51.8		84	14.8
25	27	25,290	-49.8		85	16.1
20	26	26,757	-47.9		90	16.7
15	19	28,658	-45.7		87	13.0
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5						

NANTUCKET, MASS.
1016 MB

Standard pressure surface (mb.)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind Direction	Wind Speed
SURFACE	29	14	14.5	87	332	2.7
1000	29	148	14.6	80	303	3.5
950	29	575	13.0	70	304	5.8
900	29	1,034	10.5	65	300	7.0
850	29	1,508	8.3	59	284	11.1
800	29	2,008	7.2	48	277	15.5
750	29	2,535	5.4	46	272	19.4
700	29	3,099	2.5	45	266	22.0
650	29	3,690	- .8	44	264	27.6
600	28	4,333	- 4.1	37	263	33.6
550	28	5,009	- 7.8		260	36.1
500	28	5,750	-12.4		259	38.9
450	28	6,537	-17.5		257	45.3
400	28	7,420	-23.3		256	51.9
350	28	8,384	-30.4		256	58.5
300	28	9,462	-38.5		253	66.6
250	28	10,692	-47.2		258	63.5
200	28	12,143	-54.8		259	62.6
175	28	12,992	-57.4		262	58.9
150	28	13,960	-59.8		266	48.0
125	28	15,093	-61.9		263	40.2
100	28	16,472	-61.6		262	29.7
80	28	17,862	-59.3		265	15.2
70	28	18,700	-58.1		267	8.9
60	27	19,677	-56.4		254	7.2
50	25	20,843	-55.2		275	3.3
40	25	22,272	-53.5		40	1.4
30	24	24,134	-50.7		67	4.1
25	24	25,326	-49.2		64	4.3
20	24	26,797	-46.8		56	6.2
15	23	28,713	-44.5		71	8.9
10	19	31,434	-41.3		44	2.7
7	7	33,862	-36.7			
5						

NASHVILLE, TENN.
997 MB

Standard pressure surface (mb.)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind Direction	Wind Speed
SURFACE	30	177	16.1	91	127	.6
1000	30	149				
950	30	587	17.4	70	212	2.3
900	30	1,050	15.6	66	266	5.6
850	30	1,534	13.3	61	283	9.5
800	30	2,043	10.9	59	287	12.8
750	30	2,578	8.1	57	285	12.6
700	30	3,147	5.2	53	284	13.8
650	30	3,748	2.2	46	284	16.7
600	30	4,392	- 1.4	44	284	18.1
550	30	5,078	- 5.3	44	283	21.0
500	30	5,825	- 9.4	37	282	24.7
450	30	6,629	-14.7	36	280	28.4
400	30	7,515	-20.7	42	280	32.3
350	30	8,490	-27.6	38	280	37.7
300	30	9,581	-35.7		280	44.1
250	30	10,825	-45.1		284	51.9
200	30	12,284	-55.0		284	52.3
175	30	13,128	-59.6		281	48.2
150	30	14,083	-63.9		282	42.9
125	30	15,190	-67.7		283	35.4
100	30	16,532	-67.7		287	23.7
80	30	17,883	-64.7		292	12.0
70	30	18,711	-62.1		305	5.2
60	30	19,661	-59.8		15	2.1
50	30	20,810	-56.6		64	1.0
40	30	22,234	-53.9		82	1.6
30	29	24,088	-51.6		78	4.1
25	28	25,273	-50.0		95	5.2
20	28	26,738	-48.1		74	7.2
15	26	28,645	-45.7		86	9.1
10	26	31,363	-42.6		72	11.1
7	19	33,811	-39.1		65	11.5
5	15	36,156	-35.9			

N. Y. INT. AP. IDLEWILD
1018 MB

Standard pressure surface (mb.)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind Direction	Wind Speed
SURFACE	29	5	14.7	75	315	3.3
1000	29	158	14.9	71	301	4.9
950	29	596	12.8	65	309	6.4
900	29	1,044	10.6	64	299	6.6
850	29	1,518	8.3	62	276	11.1
800	29	2,017	6.2	56	273	14.0
750	29	2,546	4.7	45	270	18.1
700	29	3,105	2.3		265	20.8
650	29	3,701	- .4		266	23.7
600	29	4,337	- 4.2	33	266	26.4
550	29	5,014	- 8.2		266	30.1
500	29	5,752	-12.9		262	34.2
450	29	6,543	-18.2		261	38.3
400	29	7,417	-24.2		262	43.7
350	29	8,378	-30.7		257	49.7
300	29	9,455	-38.5		256	56.7
250	29	10,685	-47.0		255	62.4
200	29	12,138	-53.9		264	54.2
175	28	12,985	-56.8		266	53.8
150	28	13,956	-59.2		267	45.3
125	27	15,083	-61.4		264	37.1
100	27	16,466	-61.5		263	27.0
80	26	17,852	-59.8		261	17.5
70	26	18,701	-57.8		258	11.1
60	25	19,669	-55.9		243	5.4
50	24	20,832	-54.8		246	4.3
40	21	22,266	-52.9		250	4.1
30	21	24,132	-50.4		176	.6
25	19	25,319	-49.3		104	1.6
20	16	26,786	-47.1		83	1.6
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NOME, ALASKA
1005 MB

Standard pressure surface (mb.)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind Direction	Wind Speed
SURFACE	30	7	3.8	85	340	1.9
1000	30	47	3.1	80	294	4.1
950	30	462	1.7	75	238	.6
900	30	896	- 1.3	79	208	3.9
850	30	1,350	- 4.1	78	232	5.6
800	30	1,826	- 6.9	72	238	6.6
750	30	2,324	- 9.7	64	233	7.8
700	30	2,858	-12.7	64	245	8.0
650	30	3,415	-16.3	58	239	9.5
600	30	4,018	-19.9	52	235	11.9
550	30	4,652	-23.8	46	233	12.4
500	30	5,349	-28.4	45	245	9.5
450	30	6,087	-33.5	46	237	14.8
400	30	6,914	-39.5		239	17.3
350	30	7,815	-45.9		245	19.6
300	30	8,827	-51.9		246	17.3
250	30	10,004	-52.3		255	19.8
200	30	11,459	-49.1		263	22.7
175	30	12,335	-49.2		262	22.9
150	30	13,345	-49.6		264	21.8
125	30	14,537	-50.2		259	22.3
100	30	15,994	-50.5		259	20.8
80	30	17,447	-51.0		263	19.4
70	30	18,316	-51.6		260	18.5
60	30	19,313	-51.9		259	18.7
50	30	20,493	-52.2		262	18.8
40	28	21,934	-52.5		256	17.7
30	28	23,793	-52.4		258	20.0
25	26	24,982	-51.7		261	20.8
20	23	26,420	-50.5		263	22.2
15	20	28,302	-49.1		267	24.3
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NORFOLK, VA.
1017 MB

Standard pressure surface (mb.)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind Direction	Wind Speed
SURFACE	30	9	17.9	84	50	1.9
1000	30	154	18.7	75	36	2.3
950	30	591	16.8	71	335	3.3
900	30	1,053	14.2	71	291	5.2
850	30	1,534	11.6	69	277	9.3
800	30	2,041	9.7	54	268	12.0
750	30	2,572	7.6	43	265	16.5
700	30	3,142	5.2	42	266	20.2
650	30	3,739	2.1	41	266	22.7
600	30	4,387	- 1.6	42	260	24.3
550	30	5,068	- 5.4		259	27.8
500	30	5,818	- 9.7		257	30.9
450	30	6,615	-14.8		259	34.6
400	30	7,506	-20.8	36	259	37.3
350	30	8,478	-27.9		259	38.5
300	30	9,567	-36.1		259	41.0
250	30	10,806	-45.7		261	43.5
200	30	12,259	-55.2		263	45.9
175	30	13,103	-59.0		264	44.5
150	30	14,060	-62.9		267	40.6
125	30	15,173	-66.0		266	35.0
100	30	16,527	-67.3		265	20.0
80	30	17,894	-63.1		260	11.9
70	30	18,730	-60.1		263	7.6
60	30	19,689	-57.4		263	3.5
50	30	20,847	-55.4		88	2.5
40	30	22,278	-53.3		98	5.1
30	29	24,148	-50.3		87	8.4
25	26	25,350	-48.6		88	9.3
20	24	26,819	-46.5		80	10.3
15	17	28,710	-44.7		94	11.1
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NORTH PLATTE, NEBR.
919 MB

Standard pressure surface (mb.)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind Direction	Wind Speed
SURFACE	30	848	10.9	85	96	1.9
1000	30	133				
950	30	569				
900	30	1,021	12.3	79	175	2.9
850	30	1,501	12.7	69	219	10.7
800	30	2,010	11.6	53	239	10.5
750	30	2,549	9.4	47	259	9.3
700	30	3,118	5.7	47	268	11.9
650	30	3,716	1.9	44	276	15.3
600	30	4,361	- 2.7	44	281	18.3
550	30	5,033	- 7.4	42	281	21.6
500	30	5,781	-12.7	35	279	24.5
450	30	6,571	-18.0		277	24.9
400	30	7,449	-24.2		279	28.4
350	30	8,408	-31.6		274	32.3
300	30	9,481	-39.6		270	38.1
250	30	10,705	-47.9		272	46.4
200	30	12,154	-54.5		273	51.9
175	30	13,003	-57.4		272	49.4
150	30	13,971	-60.5		275	45.3
125	30	15,099	-63.1		276	40.6
100	30	16,467	-64.1		278	28.0
80	30	17,837	-62.0		284	19.2
70	30	18,669	-60.3		295	9.1
60	30	19,631	-58.6		313	4.7
50	30	20,783	-56.7		357	3.7
40	30	22,205	-54.6		346	2.9
30	30	24,059	-51.9		2	1.9
25	30	25,245	-50.0		325	1.7
20	27	26,708	-47.8		291	2.5
15	25	28,625	-45.8		291	1.0
10	24	31,341	-42.1		5	1.2
7	13	33,824	-37.5		46	2.3
5						

OAKLAND, CALIF.
1013 MB

Standard pressure surface (mb.)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind Direction	Wind Speed
SURFACE	30	6	13.6	85	267	4.3
1000	30	112	13.5	85	254	4.9
950	30	554	14.2	72	261	4.9
900	30	1,007	18.5	36	290	6.4
850	30	1,497	18.0	28	286	4.1
800	30	2,012	15.2	24	269	3.7
750	30	2,552	12.0		250	4.5
700	30	3,130	8.7		256	4.7
650	30	3,736	4.8		255	7.2
600	30	4,386	.7		258	9.5
550	30	5,070	- 3.6		268	14.4
500	30	5,826	- 8.8		263	18.1
450	30	6,628	-15.0		262	23.5
400	30	7,515	-21.7		266	26.0
350	30	8,484	-29.3		267	30.5
300	30	9,567	-37.7		264	34.0
250	30	10,802	-46.4		261	40.0
200	30	12,259	-53.8		260	41.6
175	30	13,112	-57.2		259	41.4
150	30	14,080	-60.7		258	35.6
125	30	15,205	-64.2		259	30.1
100	30	16,568	-65.2		260	19.0
80	30	17,929	-64.0		277	7.2
70	30	18,758	-62.1		345	.8
60	30	19,707	-59.8		86	2.1
50	30	20,852	-57.6		78	4.3
40	29	22,265	-55.3		79	5.1
30	29	24,113	-52.0		75	4.7
25	29	25,298	-50.3		80	4.7
20	28	26,760	-48.4		83	3.5
15	26	28,665	-46.5		85	4.5
10	25	31,381	-43.4		78	4.3
7	21	33,784	-40.5		83	1.7
5	16	36,060	-37.4			

OKLAHOMA CITY, OKLA.
971 MB

Standard pressure surface (mb.)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind Direction	Wind Speed
SURFACE	30	392	18.1	91	142	4.1
1000	30	138				
950	30	583	18.9	80	172	8.2
900	30	1,046	18.7	71	210	12.8
850	30	1,536	16.6	66	230	10.1
800	30	2,051	13.5	64	242	9.7
750	30	2,590	10.3	59	248	7.0
700	30	3,164	6.9	56	243	6.8
650	30	3,767	3.2	52	243	8.0
600	30	4,414	- .6	47	262	8.9
550	30	5,098	- 4.6	45	262	11.1
500	30	5,852	- 8.8		268	15.3
450	30	6,657	-13.9		269	19.8
400	30	7,546	-19.7		273	24.9
350	30	8,524	-26.4		272	32.6
300	30	9,619	-34.8		269	37.9
250	30	10,867	-44.5		271	42.7
200	30	12,328	-55.0		275	51.1
175	30	13,171	-60.5		272	47.6
150	29	14,121	-66.0		269	39.6
125	29	15,220	-68.6		282	31.5
100	29	16,554	-68.9		287	16.1
80	27	17,902	-65.6		307	5.6
70	27	18,728	-63.4		329	1.7
60	27	19,673	-60.7		67	1.6
50	26	20,817	-57.6		71	3.7
40	26	22,237	-55.0		88	6.2
30	25	24,094	-51.7		82	7.8
25	23	25,289	-50.1		93	9.7
20	21	26,753	-48.2		92	10.7
15	13	28,687	-45.5			
10	5	31,416	-41.9			
7						
5						

See reference note at end of table

RAWINSONDE DATA

Average monthly values

OLYMPIA, WASH.
1008 MB

Standard pressure surface (mb)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind Direction	Wind Speed
SURFACE	30	58	9.8	90	217	2.1
1000	30	127	11.8	80	194	.8
950	30	559	13.2	68	144	1.6
900	30	1,012	11.6	61	179	3.1
850	30	1,490	10.9	48	227	4.7
800	30	1,993	8.6	43	237	6.6
750	30	2,523	5.4	43	246	8.5
700	30	3,085	2.6	37	256	10.7
650	30	3,680	- .6	37	256	13.4
600	30	4,316	- 4.5	39	262	14.4
550	30	4,990	- 8.8	38	262	15.3
500	30	5,728	-13.6		264	15.5
450	30	6,516	-18.8		271	18.7
400	30	7,388	-25.4		274	22.3
350	30	8,342	-33.0		276	23.1
300	30	9,406	-41.6		280	23.5
250	30	10,618	-50.4		276	28.4
200	29	12,046	-55.8		275	28.2
175	29	12,894	-56.5		268	28.8
150	29	13,869	-57.7		263	29.3
125	29	15,013	-59.6		264	27.8
100	29	16,408	-59.8		266	23.3
80	28	17,810	-58.5		265	16.1
70	28	18,658	-57.9		267	12.0
60	28	19,624	-57.3		272	10.1
50	28	20,780	-55.9		273	6.6
40	27	22,208	-54.7		278	4.3
30	27	24,059	-52.1		287	4.3
25	27	25,243	-50.9		302	5.6
20	23	26,699	-48.6		281	5.4
15	13	28,593	-47.1			
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OMAHA, NEBR.
970 MB

Standard pressure surface (mb)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind Direction	Wind Speed
SURFACE	30	403	12.4	87	157	1.4
1000	30	143				
950	30	577	14.6	70	184	3.3
900	30	1,034	13.3	61	238	6.2
850	30	1,514	11.9	51	277	8.0
800	30	2,021	10.1	44	284	10.9
750	30	2,556	7.6	43	289	12.2
700	30	3,121	4.7	36	290	15.5
650	30	3,714	1.2	35	285	15.5
600	30	4,362	- 2.8	32	287	16.3
550	30	5,037	- 7.3		284	19.4
500	30	5,782	-12.3		278	22.3
450	30	6,572	-17.6		278	26.2
400	30	7,453	-23.9		276	30.3
350	30	8,414	-30.9		273	32.8
300	30	9,490	-39.0		275	38.5
250	30	10,715	-48.1		271	47.2
200	30	12,162	-54.7		272	51.1
175	29	13,006	-57.7		273	49.0
150	29	13,974	-59.9		275	44.5
125	28	15,106	-62.5		278	37.7
100	27	16,478	-63.1		284	28.2
80	27	17,857	-61.7		286	18.5
70	27	18,696	-59.7		285	13.8
60	27	19,656	-57.7		289	8.0
50	27	20,812	-56.0		306	6.4
40	27	22,237	-54.3		315	4.3
30	26	24,097	-51.4		307	2.7
25	26	25,287	-49.6		298	3.1
20	26	26,756	-47.5		283	4.3
15	17	28,651	-44.9		314	4.5
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PEORIA, ILL.
995 MB

Standard pressure surface (mb)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind Direction	Wind Speed
SURFACE	30	200	11.9	85	354	.6
1000	30	156	6.4			
950	30	590	14.3	63	248	2.1
900	30	1,045	12.4	62	287	5.4
850	30	1,523	9.9	57	292	8.7
800	30	2,026	8.2	44	295	12.0
750	30	2,557	6.3	37	287	15.3
700	30	3,121	3.7	28	287	18.1
650	30	3,716	.6		284	20.8
600	30	4,358	- 3.3		281	22.9
550	30	5,038	- 7.7		285	24.9
500	30	5,776	-12.4		287	28.6
450	30	6,567	-17.8		287	30.9
400	30	7,444	-24.2		284	35.9
350	30	8,404	-31.2		283	42.9
300	30	9,478	-39.2		283	52.7
250	30	10,705	-47.3		281	58.5
200	30	12,153	-55.1		282	60.8
175	30	12,999	-57.9		282	60.0
150	29	13,965	-60.6		283	51.5
125	28	15,097	-63.0		283	42.0
100	27	16,462	-62.8		281	29.1
80	27	17,841	-61.0		285	18.5
70	27	18,686	-59.3		285	11.9
60	27	19,644	-57.6		306	6.6
50	27	20,802	-55.8		309	3.3
40	27	22,229	-53.9		324	.6
30	25	24,091	-51.3		291	1.9
25	25	25,282	-49.4		337	1.7
20	22	26,752	-47.5		314	2.1
15	20	28,659	-45.4		39	.8
10	17	31,384	-41.9		336	1.7
7	16	33,833	-38.3		300	1.4
5	11	36,143	-33.9			

PITTSBURGH, PA.
977 MB

Standard pressure surface (mb)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind Direction	Wind Speed
SURFACE	30	353	10.6	87	39	1.0
1000	30	158				
950	30	589	13.4	71	240	3.9
900	30	1,043	11.1	72	271	8.0
850	30	1,518	8.6	68	284	9.5
800	30	2,018	6.4	61	283	11.3
750	30	2,542	4.2	54	278	14.2
700	30	3,105	1.5	50	279	19.2
650	30	3,695	- 1.4	51	276	22.7
600	30	4,335	- 4.8	50	276	26.6
550	30	5,009	- 8.8	49	276	29.0
500	30	5,748	-13.4	46	275	30.3
450	30	6,536	-18.9		275	33.8
400	30	7,409	-25.1		272	38.1
350	30	8,366	-32.0		273	43.7
300	30	9,439	-39.4		271	53.0
250	30	10,667	-47.2		271	58.5
200	30	12,120	-53.6		275	63.7
175	30	12,974	-56.5		277	57.5
150	30	13,945	-59.7		275	46.6
125	30	15,077	-62.3		272	40.0
100	30	16,455	-61.9		272	26.4
80	30	17,839	-60.4		272	13.8
70	30	18,684	-58.7		269	9.9
60	30	19,646	-57.1		284	4.1
50	30	20,802	-55.6		234	1.6
40	29	22,228	-52.9		250	.8
30	28	24,092	-50.9		96	2.1
25	27	25,282	-49.3		117	.8
20	27	26,750	-47.6		94	2.9
15	26	28,659	-44.8		82	7.0
10	23	31,384	-42.2		83	2.3
7	10	33,899	-38.2			
5						

PORTLAND, ME.
1015 MB

Standard pressure surface (mb)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind Direction	Wind Speed
SURFACE	30	20	11.3	89	297	2.5
1000	30	146	12.8	76	308	4.7
950	30	578	11.8	66	315	6.4
900	30	1,027	9.4	65	312	6.0
850	30	1,499	6.8	62	290	7.6
800	30	1,996	4.5	52	284	11.7
750	30	2,522	3.1	41	274	15.0
700	30	3,077	.3	38	272	19.0
650	30	3,661	- 2.6	36	269	21.8
600	30	4,299	- 6.3	36	264	24.7
550	30	4,965	-10.0		263	27.8
500	30	5,705	-14.5		260	31.3
450	30	6,487	-19.9		256	36.5
400	30	7,361	-25.9		256	41.4
350	30	8,316	-32.4		256	49.7
300	29	9,383	-39.8		254	53.0
250	29	10,609	-47.4		256	63.0
200	29	12,065	-53.0		256	59.3
175	29	12,922	-55.0		261	55.8
150	29	13,902	-57.4		258	46.4
125	29	15,048	-59.2		255	39.2
100	29	16,446	-58.4		261	27.0
80	29	17,851	-58.0		259	17.9
70	29	18,699	-56.4		258	13.6
60	29	19,679	-55.3		254	10.3
50	28	20,848	-54.4		248	8.2
40	25	22,277	-52.6		244	5.1
30	20	24,139	-51.0		246	2.9
25	16	25,317	-49.9		256	3.5
20	15	26,788	-47.1		255	4.3
15	10	28,697	-45.1			
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RAPID CITY, S. DAK.
906 M[illegible]

Standard pressure surface (mb)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind Direction	Wind Speed
SURFACE	30	966	9.6	70	320	3.1
1000	30	133				
950	30	566				
900	30	1,020	11.5	64	319	3.3
850	30	1,499	12.3	52	273	6.6
800	30	2,005	10.1	49	278	8.0
750	30	2,536	7.2	47	275	9.7
700	30	3,104	3.9	44	287	11.9
650	30	3,693	.3	45	278	15.9
600	30	4,339	- 4.2	46	273	18.1
550	30	5,007	- 8.7	44	275	22.0
500	30	5,751	-13.5	40	278	24.7
450	30	6,536	-19.1	35	274	26.2
400	30	7,409	-25.6		274	29.7
350	30	8,363	-33.0		273	32.3
300	30	9,428	-41.4		274	33.4
250	29	10,643	-49.0		275	38.7
200	29	12,087	-54.7		275	43.5
175	29	12,937	-56.9		276	43.9
150	29	13,909	-58.8		279	42.6
125	29	15,049	-60.6		279	34.8
100	29	16,434	-61.5		285	26.8
80	28	17,825	-60.0		285	17.1
70	28	18,670	-58.6		291	12.2
60	27	19,636	-57.2		301	7.4
50	27	20,792	-56.3		316	4.5
40	27	22,217	-54.6		346	3.7
30	24	24,061	-52.5		333	3.7
25	22	25,249	-50.7		335	3.7
20	22	26,713	-48.2		324	3.9
15	13	28,653	-45.6			
10						
7						

ST. CLOUD, MINN.
979 MB

Standard pressure surface (mb)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind Direction	Wind Speed
SURFACE	30	316	9.1	91		.0
1000	30	142				
950	30	571	11.9	75	270	2.5
900	30	1,022	10.5	64	275	8.4
850	30	1,496	8.1	60	276	9.7
800	30	1,995	6.4	45	284	10.9
750	30	2,520	4.1	45	291	13.8
700	30	3,081	1.4	46	299	15.7
650	30	3,669	- 2.2	44	298	19.0
600	30	4,306	- 5.8	37	293	22.9
550	30	4,977	-10.1	35	294	25.3
500	30	5,711	-15.0		294	29.0
450	30	6,493	-20.6		295	30.3
400	30	7,360	-26.8		295	31.3
350	30	8,309	-34.2		295	34.8
300	30	9,369	-42.3		295	38.5
250	30	10,580	-50.0		292	42.6
200	30	12,020	-54.5		286	45.7
175	29	12,870	-55.9		284	43.7
150	29	13,847	-57.1		285	41.8
125	29	14,997	-58.9		287	32.3
100	29	16,394	-58.7		286	26.0
80	29	17,797	-57.9		288	19.4
70	29	18,652	-56.9		292	14.0
60	29	19,621	-55.8		297	10.5
50	29	20,786	-54.6		305	7.4
40	29	22,219	-53.7		331	4.1
30	28	24,081	-51.3		313	4.5
25	28	25,270	-49.7		313	5.6
20	28	26,739	-47.7		303	6.6
15	22	28,652	-45.0		275	5.4
10	19	31,391	-41.7		288	6.2
7	9	33,810	-39.2			

ST. PAUL IS., ALASKA
1010 MB

Standard pressure surface (mb)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind Direction	Wind Speed
SURFACE	26	10	5.2	87	277	8.0
1000	26	88	5.8	80	249	6.2
950	26	505	3.4	81	246	8.5
900	26	943	.8	78	257	10.9
850	26	1,401	- 1.3	70	261	11.7
800	26	1,883	- 2.9	61	263	13.4
750	26	2,391	- 4.9	53	269	15.9
700	26	2,933	- 7.9	47	270	16.9
650	26	3,502	-11.2	40	269	20.4
600	26	4,117	-14.3	39	263	23.7
550	26	4,768	-18.4	40	273	24.5
500	26	5,477	-22.9		265	29.3
450	26	6,238	-27.9	41	267	34.4
400	25	7,088	-33.4		264	40.2
350	24	8,016	-40.1		262	44.7
300	24	9,053	-46.6		256	50.1
250	24	10,247	-51.9		252	56.0
200	24	11,691	-51.2		273	40.2
175	24	12,559	-50.9		254	51.1
150	22	13,550	-51.0			
125	22	14,733	-51.9			
100	21	16,188	-52.1		259	35.4
80	21	17,632	-52.1		264	26.8
70	21	18,506	-52.0		255	25.5
60	21	19,493	-52.1		259	21.0
50	21	20,674	-51.9		260	19.2
40	20	22,123	-51.7		273	18.5
30	19	23,978	-51.0			
25	18	25,160	-49.8			
20	17	26,604	-48.5			
15	15	28,479	-46.8			
10						
7						

SALEM, OREG.
1008 MB

Standard pressure surface (mb)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind Direction	Wind Speed
SURFACE	30	61	11.4	86	189	2.5
1000	30	126	13.2	77	182	1.0
950	30	559	14.1	64		.0
900	30	1,016	13.4	55	199	2.7
850	30	1,495	12.2	46	217	4.1
800	30	2,002	10.2	39	237	7.0
750	30	2,532	7.2	37	241	10.3
700	30	3,100	4.2	34	247	12.0
650	30	3,694	.8	34	249	13.6
600	30	4,338	- 3.3	35	251	14.4
550	30	5,013	- 7.5		256	15.5
500	30	5,756	-12.4		259	18.1
450	30	6,546	-18.1		261	18.8
400	30	7,422	-24.8		263	19.6
350	30	8,379	-32.4		263	21.0
300	30	9,447	-40.7		270	22.2
250	30	10,665	-49.4		273	23.7
200	30	12,105	-55.5		267	26.8
175	30	12,953	-57.0		260	28.6
150	30	13,926	-58.6		262	28.4
125	30	15,067	-60.5		264	26.2
100	28	16,462	-61.1		265	20.4
80	28	17,851	-60.2		264	13.0
70	28	18,690	-59.4		273	9.9
60	28	19,653	-58.0		264	8.0
50	26	20,813	-56.6		274	5.2
40	26	22,233	-55.1		271	4.3
30	26	24,081	-52.3		284	3.5
25	26	25,263	-51.1		298	3.1
20	26	26,718	-49.5		311	3.5
15	18	28,635	-46.8		338	3.1
10	6	31,399	-41.9			
7						

SALT LAKE CITY, UTAH
872 MB

Standard pressure surface (mb)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind Direction	Wind Speed
SURFACE	30	1,288	12.0	51	161	6.2
1000	30	120				
950	30	559				
900	30	1,023				
850	30	1,505	18.1	31	166	7.8
800	30	2,023	16.4	26	187	8.5
750	30	2,567	12.5	26	228	7.0
700	30	3,142	8.1	28	260	9.5
650	30	3,746	3.2	30	263	13.2
600	30	4,392	- 2.1	34	258	14.8
550	30	5,072	- 7.1	35	258	16.5
500	30	5,814	-12.1		265	18.7
450	30	6,610	-17.5		267	21.4
400	30	7,484	-24.0		266	23.9
350	30	8,444	-31.4		267	27.0
300	30	9,517	-39.6		266	33.4
250	30	10,740	-48.3		265	41.0
200	30	12,188	-54.5		266	45.9
175	30	13,037	-57.2		266	44.1
150	30	14,005	-60.4		267	42.4
125	30	15,133	-63.2		272	32.4
100	30	16,499	-64.6		272	22.9
80	30	17,866	-63.2		278	12.2
70	30	18,678	-61.7		287	7.2
60	29	19,650	-59.3		306	3.1
50	29	20,797	-57.9		35	1.2
40	29	22,211	-55.8		59	3.7
30	28	24,047	-53.5		2	1.0
25	28	25,226	-51.4		353	1.7
20	27	26,678	-49.5		288	2.1
15	24	28,559	-47.7		288	4.1
10	5	31,145	-46.8			
7						

SAN ANTONIO, TEXAS
987 MB

Standard pressure surface (mb)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind Direction	Wind Speed
SURFACE	30	243	22.5	87	97	.6
1000	30	127				
950	30	577	21.8	78	147	7.6
900	30	1,044	19.2	71	165	11.5
850	30	1,535	17.2	59	159	9.7
800	30	2,051	14.8	54	156	7.0
750	30	2,593	12.0	50	135	4.9
700	30	3,171	8.8	45	117	4.1
650	30	3,776	5.4	44	87	1.9
600	30	4,431	1.7	40	111	1.6
550	30	5,120	- 2.3	37	167	1.0
500	30	5,880	- 6.7	35	223	3.3
450	30	6,688	-11.7		251	4.1
400	30	7,589	-17.7		271	6.0
350	30	8,575	-24.5		283	6.8
300	30	9,678	-32.8		273	9.1
250	30	10,935	-42.9		282	10.7
200	30	12,401	-54.7		293	12.8
175	30	13,243	-60.9		296	14.0
150	30	14,186	-67.4		300	9.5
125	30	15,269	-72.4		308	8.9
100	30	16,575	-73.4		351	7.8
80	29	17,896	-69.0		64	9.7
70	28	18,709	-65.3		85	13.2
60	28	19,648	-62.0		95	13.4
50	28	20,786	-58.3		88	13.8
40	27	22,200	-55.4		84	18.8
30	26	24,052	-51.8		85	20.0
25	25	25,240	-50.1		90	21.2
20	20	26,715	-48.1		90	23.9
15	7	28,619	-45.7			
10						
7						
5						

SAN DIEGO, CALIF.
997 MB

Standard pressure surface (mb)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind Direction	Wind Speed
SURFACE	30	124	16.3	90	326	.8
1000	30	100	16.7			
950	30	540	17.7	67	28	.6
900	30	1,004	21.9	34	148	1.2
850	30	1,500	20.6	28	213	2.5
800	30	2,021	17.5	33	205	5.2
750	30	2,559	13.7	36	184	6.0
700	30	3,146	9.8	34	184	4.9
650	30	3,750	6.1		202	4.3
600	30	4,411	2.7		238	4.5
550	30	5,100	- 1.7		275	8.0
500	30	5,862	- 6.8		262	11.9
450	30	6,669	-12.5		270	13.4
400	30	7,567	-18.7		266	16.5
350	30	8,548	-25.9		263	22.3
300	30	9,647	-34.1		261	29.5
250	30	10,899	-43.3		257	32.8
200	30	12,367	-53.9		256	35.6
175	30	13,215	-59.1		258	35.0
150	30	14,168	-64.6		252	32.3
125	30	15,269	-69.2		258	24.5
100	30	16,594	-70.1		270	12.6
80	30	17,926	-68.1		343	1.0
70	30	18,738	-65.8		94	3.7
60	30	19,678	-61.6		101	7.8
50	29	20,816	-58.7		92	9.5
40	29	22,227	-55.7		87	11.7
30	29	24,073	-52.5		89	12.4
25	29	25,254	-51.1		90	13.2
20	29	26,711	-49.3		90	12.6
15	29	28,607	-47.3		85	11.9
10	15	31,306	-44.0		84	9.7
7						
5						

SAN JUAN, P. R.
1014 MB

Standard pressure surface (mb)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind Direction	Wind Speed
SURFACE	30	6	24.8	87	132	1.2
1000	30	132	24.8	83	101	5.8
950	30	582	22.4	78	95	12.4
900	30	1,051	19.7	74	99	14.0
850	30	1,542	16.9	68	105	13.8
800	30	2,057	14.4	57	104	14.4
750	30	2,595	11.8	47	103	14.2
700	30	3,175	8.5	44	99	13.2
650	30	3,778	5.0	40	91	10.7
600	30	4,433	1.4	39	87	9.1
550	30	5,121	- 2.6	37	86	6.8
500	30	5,879	- 7.0	34	83	6.4
450	30	6,686	-12.1		100	6.0
400	30	7,584	-17.9		110	4.1
350	30	8,568	-25.1		134	2.9
300	30	9,669	-33.4		144	2.1
250	30	10,922	-43.4		228	5.2
200	30	12,385	-55.4		259	8.2
175	30	13,224	-61.6		269	6.2
150	29	14,164	-68.1		289	4.5
125	29	15,245	-72.3		47	1.2
100	29	16,555	-72.6		73	8.0
80	29	17,867	-71.5		86	17.3
70	29	18,662	-68.1		86	24.5
60	29	19,597	-64.5		87	28.2
50	28	20,723	-60.7		87	29.1
40	27	22,124	-57.3		89	35.2
30	26	23,964	-52.5		89	42.4
25	26	25,147	-50.6		90	47.0
20	26	26,608	-48.7		92	49.9
15	25	28,516	-44.8		90	52.1
10	21	31,246	-41.3		89	52.8
7	15	33,656	-39.5		84	55.8
5						

SANTA MONICA, CALIF.
1008 MB

Standard pressure surface (mb)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind Direction	Wind Speed
SURFACE	30	38	17.0	85		.0
1000	30	106	16.8	84		.0
950	30	549	19.3	60	108	2.1
900	30	1,012	21.7	32	104	1.6
850	30	1,506	20.4	24	212	2.3
800	30	2,027	17.4	26	212	4.5
750	30	2,570	13.7		194	6.2
700	30	3,151	10.0		186	6.4
650	30	3,759	6.1		217	4.9
600	30	4,414	2.1		257	5.6
550	30	5,104	- 2.3		273	8.7
500	30	5,861	- 7.4		282	12.8
450	30	6,666	-13.3		277	14.2
400	30	7,558	-20.4		280	17.9
350	30	8,532	-27.6		268	22.9
300	30	9,623	-35.6		261	29.9
250	30	10,868	-44.4		260	36.9
200	30	12,329	-54.6		259	41.2
175	30	13,174	-59.6		258	38.1
150	30	14,127	-64.5		254	34.2
125	30	15,230	-68.5		256	27.8
100	30	16,561	-69.5		272	13.4
80	30	17,898	-67.1		330	1.0
70	30	18,712	-64.6		97	4.1
60	30	19,658	-61.3		93	7.0
50	30	20,797	-58.3		94	8.9
40	30	22,211	-55.6		83	8.9
30	29	24,061	-52.4		87	12.0
25	29	25,245	-50.6		85	11.5
20	29	26,705	-48.9		86	11.7
15	19	28,595	-47.1		[illegible]	7.4
10						
7						
5						

SAULT STE. MARIE, MICH.
990 MB

Standard pressure surface (mb)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind Direction	Wind Speed
SURFACE	30	221	8.5	92	22	1.6
1000	30	139				
950	30	562	9.4	74	268	3.1
900	30	1,012	7.4	68	291	8.0
850	30	1,481	4.8	66	294	11.5
800	30	1,973	2.5	56	292	14.8
750	30	2,495	.6	44	290	16.3
700	30	3,045	- 1.9	43	291	18.3
650	30	3,629	- 4.7	42	292	21.6
600	30	4,257	- 8.5	40	291	22.3
550	30	4,921	-13.0	38	289	22.2
500	30	5,646	-17.6	34	285	24.1
450	30	6,425	-23.4		286	28.0
400	30	7,279	-29.4		287	28.8
350	30	8,219	-36.3		284	33.4
300	30	9,272	-43.5		287	36.1
250	30	10,482	-49.1		286	43.5
200	29	11,943	-51.9		283	45.3
175	29	12,806	-53.4		279	42.6
150	29	13,796	-55.0		278	38.3
125	29	14,957	-56.6		280	31.1
100	28	16,374	-56.7		280	24.3
80	28	17,790	-56.2		284	17.9
70	28	18,643	-55.6		288	13.0
60	28	19,624	-54.8		291	9.1
50	28	20,792	-54.2		285	6.0
40	28	22,228	-52.6		287	3.9
30	28	24,094	-51.0		274	3.9
25	28	25,284	-49.5		287	4.1
20	28	26,752	-47.8		263	5.6
15	25	28,658	-44.8		271	8.5
10	22	31,400	-41.0		269	9.9
7	16	33,852	-38.3		268	15.9
5	11	36,125	-36.5			

See reference note at end of table

RAWINSONDE DATA

Average monthly values

SEPTEMBER 1962

SHEMYA, ALASKA
1013 MB

Standard pressure surface (mb)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind	
					Direction	Speed
SURFACE	30	38	7.9	89	262	5.1
1000	30	145	7.3	84	265	5.2
950	30	564	4.9	79	271	10.1
900	30	1,007	2.7	76	278	11.1
850	30	1,467	1.1	65	280	12.4
800	30	1,954	- .6	61	282	14.4
750	30	2,467	- 2.4	52	282	17.7
700	30	3,014	- 5.1	50	283	19.[illegible]
650	30	3,589	- 8.0	45	283	22.3
600	30	4,213	-11.3	42	280	26.0
550	30	4,867	-15.4	41	279	28.8
500	30	5,593	-19.8	41	277	32.1
450	30	6,358	-24.8		276	38.9
400	30	7,214	-30.5		275	42.6
350	30	8,152	-37.2		275	48.4
300	30	9,198	-44.6		274	55.4
250	30	10,400	-50.9		277	54.8
200	30	11,846	-51.9		275	56.2
175	30	12,710	-53.0		272	50.7
150	30	13,700	-54.2		271	47.6
125	30	14,865	-55.4		271	41.4
100	30	16,286	-55.9		275	32.6
80	30	17,707	-55.2		274	27.0
70	30	18,562	-54.8		272	23.9
60	30	19,546	-54.6		275	21.8
50	30	20,714	-54.2		274	20.4
40	30	22,148	-53.2		273	18.1
30	29	24,007	-51.6		265	15.0
25	29	25,192	-50.6		265	15.9
20	28	26,658	-48.9		265	15.5
15	23	28,562	-46.5		269	16.7
10	5	31,266	-42.6			

SHREVEPORT, LA.
1008 MB

Standard pressure surface (mb)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind	
					Direction	Speed
SURFACE	30	79	21.3	90	101	1.9
1000	30	144	21.6	85	111	2.3
950	30	590	20.9	72	165	6.0
900	30	1,058	18.7	68	191	5.8
850	30	1,547	16.0	69	210	4.5
800	30	2,061	13.2	66	242	3.5
750	30	2,599	10.6	57	253	3.7
700	30	3,174	7.2	55	260	3.7
650	30	3,778	3.8	54	262	4.3
600	30	4,427	- .1	54	263	6.2
550	30	5,112	- 3.6	41	273	8.9
500	30	5,866	- 8.0	32	277	10.5
450	30	6,673	-13.1	31	282	13.2
400	30	7,565	-19.0	32	284	15.3
350	30	8,546	-26.0		285	17.9
300	30	9,643	-34.4		285	21.6
250	30	10,891	-44.4		284	25.6
200	28	12,353	-55.2		287	29.1
175	26	13,191	-61.1		288	28.8
150	25	14,134	-67.0		293	28.0
125	24	15,219	-71.3		295	19.4
100	23	16,530	-71.2		304	11.5
80	23	17,861	-67.6		3	4.7
70	23	18,689	-64.3		78	6.4
60	23	19,625	-60.3		93	6.4
50	22	20,773	-57.5		91	7.0
40	22	22,191	-54.9		84	10.1
30	22	24,039	-52.2		89	14.4
25	21	25,[illegible]	-50.1		93	16.5
20	20	26,683	-48.4		94	13.6
15	19	28,589	-45.5		84	13.0
10	16	31,310	-42.1		81	21.0

SPOKANE, WASH.
931 MB

Standard pressure surface (mb)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind	
					Direction	Speed
SURFACE	30	722	10.7	60	123	2.4
1000	30	122				
950	30	558				
900	30	1,011	14.5	48	172	4.1
850	30	1,492	12.4	45	215	4.3
800	30	1,998	9.0	48	231	5.2
750	30	2,527	5.7	47	249	7.2
700	30	3,091	2.1	50	257	11.1
650	30	3,680	- 1.6	44	266	10.3
600	30	4,318	- 5.2	41	262	14.0
550	30	4,990	- 9.4		266	17.9
500	30	5,728	-13.7		265	19.4
450	30	6,517	-19.2		273	22.2
400	30	7,386	-25.4		274	25.1
350	30	8,342	-32.7		274	28.0
300	30	9,409	-41.3		273	29.9
250	30	10,623	-50.2		271	31.3
200	30	12,061	-54.9		274	34.4
175	30	12,914	-55.8		273	34.4
150	30	13,892	-57.6		270	33.8
125	30	15,040	-58.8		273	28.4
100	30	16,440	-58.9		272	23.5
80	30	17,843	-58.3		274	16.3
70	30	18,687	-57.5		271	13.8
60	30	19,661	-56.3		271	11.7
50	30	20,820	-55.5		269	8.0
40	30	22,246	-54.3		267	6.4
30	29	24,093	-52.6		241	4.5
25	27	25,279	-51.2		275	4.7
20	26	26,734	-49.7		286	3.3
15	22	28,637	-47.3		294	7.2
10	6	31,347	-43.2			

SWAN ISLAND, W. I.
1011 MB

Standard pressure surface (mb)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind	
					Direction	Speed
SURFACE	30	[illegible]	26.8	85	81	7.0
1000	30	107	26.5	82	84	9.3
950	30	558	23.8	79	104	14.[illegible]
900	30	1,032	21.0	75	113	15.2
850	30	1,526	18.4	69	111	15.[illegible]
800	30	2,044	15.4	66	113	14.4
750	30	2,586	12.3	63	114	14.2
700	30	3,166	9.0	59	117	12.4
650	30	3,772	5.5	57	122	10.7
600	30	4,428	1.7	58	121	9.4
550	30	5,117	- 2.4	52	116	8.5
500	30	5,876	- 6.8	52	11[illegible]	8.4
450	30	6,685	-11.3	48	114	5.6
400	30	7,586	-16.9	42	93	4.9
350	30	8,574	-24.0	38	88	2.7
300	30	9,680	-32.4	34	35	2.1
250	30	10,938	-42.7		319	4.3
200	30	12,400	-55.4		294	7.2
175	30	13,238	-62.[illegible]		292	8.5
150	30	14,174	-69.[illegible]		316	7.6
125	30	15,247	-74.[illegible]		21	8.5
100	30	16,543	-74.1		74	13.8
80	30	17,853	-71.[illegible]		87	17.7
70	29	18,654	-68.8		88	21.2
60	29	19,580	-65.1		87	25.8
50	29	20,700	-61.7		87	32.1
40	29	22,196	-58.0		92	38.[illegible]
30	29	23,928	-53.4		95	45.7
25	28	25,108	-50.6		96	51.7
20	21	26,570	-43.7		91	51.1
15	10	28,489	-46.0			

TAMPA, FLA.
1015 MB

Standard pressure surface (mb)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind	
					Direction	Speed
SURFACE	30	8	23.1	[illegible]	[illegible]	4.5
1000	30	139	23.8	84	121	6.8
950	30	588	22.3	77	151	8.[illegible]
900	30	1,058	19.7	75	16[illegible]	7.4
850	29	1,550	16.[illegible]	72	17[illegible]	[illegible]
800	29	2,066	14.[illegible]	69	17[illegible]	4.3
750	29	2,607	10.9	67	154	[illegible]
700	29	3,182	7.9	63	153	1.[illegible]
650	29	3,788	4.7	[illegible]	181	[illegible]
600	29	4,440	1.0	57	301	.8
550	29	5,130	- 2.8	51	347	[illegible]
500	29	5,885	- 7.0	38	2	[illegible]
450	29	6,697	-11.9		6	[illegible]
400	29	7,593	-17.9		1	5.6
350	29	8,577	-24.9		353	6.2
300	28	9,677	-33.3		344	8.4
250	28	10,931	-43.3		346	11.1
200	28	12,395	-54.7		353	14.[illegible]
175	28	13,237	-60.5		1[illegible]	14.8
150	28	14,183	-66.3		357	[illegible]
125	28	15,272	-71.1		2	8.9
100	28	16,585	-71.5		22	7.6
80	27	17,911	-67.6		69	8.4
70	27	18,7[illegible]	-64.5		[illegible]	11.[illegible]
60	26	19,672	-61.5		[illegible]	[illegible]
50	26	20,810	-58.4		[illegible]	[illegible]
40	26	22,226	-54.8		91	22.0
30	25	24,080	-51.9		87	24.5
25	22	25,264	-49.[illegible]		85	25.6
20	19	26,733	-46.8		87	[illegible]
15	[illegible]	28,652	-44.5			

TATOOSH IS., WASH
1011 MB

Standard pressure surface (mb)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind	
					Direction	Speed
SURFACE	30	31	11.4	89	120	6.0
1000	30	123	12.8	80	118	5.8
950	30	553	13.2	66	148	4.5
900	30	1,008	12.0	59	191	2.1
850	30	1,486	10.3	52	226	3.9
800	30	1,988	8.0	47	237	6.0
750	30	2,516	5.7	44	247	7.8
700	30	3,080	2.5	43	254	8.4
650	30	3,670	- 1.0	43	250	10.1
600	30	4,309	- 4.9	38	253	11.5
550	30	4,980	- 9.2	34	260	13.8
500	30	5,718	-14.1	31	262	16.9
450	30	6,502	-19.4		260	19.2
400	30	7,375	-25.6		262	21.4
350	30	8,329	-32.8		268	22.9
300	30	9,394	-41.5		275	24.5
250	30	10,605	-50.4		279	27.6
200	30	12,040	-55.9		275	29.1
175	30	12,887	-56.7		271	30.3
150	30	13,862	-57.6		263	30.1
125	30	15,009	-58.6		266	29.0
100	30	16,409	-58.8		264	24.3
80	29	17,817	-57.5		263	18.5
70	29	18,660	-57.0		265	14.8
60	29	19,638	-56.2		267	12.0
50	29	20,798	-55.3		268	9.3
40	28	22,228	-54.5		273	6.2
30	28	24,078	-52.5		276	5.4
25	26	25,259	-50.8		273	5.1
20	22	26,731	-49.2		306	5.6
15	22	28,627	-46.7		319	5.2
10	22	31,334	-43.5		310	4.9
7	17	33,737	-40.6		299	5.6
5	11	36,034	-37.0			

TOPEKA, KANS.
986 MB

Standard pressure surface (mb)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind	
					Direction	Speed
SURFACE	29	269	15.1	91	85	3.1
1000	29	145				
950	29	583	15.9	74	132	4.5
900	29	1,040	14.3	70	214	4.5
850	29	1,522	12.6	65	253	6.0
800	29	2,030	10.8	60	275	8.7
750	29	2,570	8.3	53	283	10.3
700	29	3,133	5.1	52	288	13.6
650	29	3,732	1.6	46	281	15.2
600	29	4,376	- 2.1	39	279	18.1
550	29	5,058	- 6.5	36	291	20.8
500	29	5,801	-11.0		278	23.3
450	29	6,598	-16.4		276	25.8
400	29	7,480	-22.3		273	29.5
350	29	8,448	-29.5		272	35.9
300	29	9,530	-37.6		271	43.1
250	29	10,765	-46.7		271	53.8
200	29	12,215	-55.7		272	60.6
175	29	13,059	-59.2		273	58.1
150	29	14,018	-62.6		274	52.1
125	28	15,135	-65.3		283	40.0
100	28	16,492	-65.9		287	27.4
80	28	17,852	-64.0		291	14.2
70	28	18,680	-61.8		297	9.3
60	28	19,635	-59.1		320	7.2
50	28	20,783	-57.2		10	3.7
40	27	22,206	-54.9		63	3.1
30	25	24,065	-52.2		76	1.7
25	23	25,253	-50.4		82	3.5
20	17	26,734	-48.0		83	4.3
15						
10						
7						
5						

TUCSON, ARIZ.
923 MB

Standard pressure surface (mb)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind	
					Direction	Speed
SURFACE	30	789	22.6	62	151	5.8
1000	30	80				
950	30	528				
900	30	1,006	24.4	53	149	6.6
850	30	1,506	22.0	52	145	3.5
800	30	2,030	18.3	54	153	2.9
750	30	2,576	14.4	57	159	3.5
700	30	3,159	10.7	56	166	3.7
650	30	3,768	5.7	59	183	5.6
600	30	4,422	1.5	56	187	6.4
550	30	5,111	- 2.8	51	215	6.8
500	30	5,869	- 6.8	42	247	8.4
450	30	6,681	-11.7		263	12.0
400	30	7,578	-17.6		262	15.0
350	30	8,564	-24.8		267	15.3
300	30	9,666	-33.2		263	24.5
250	30	10,921	-42.9		254	31.5
200	30	12,389	-53.8		255	36.1
175	30	13,235	-59.6		258	31.1
150	30	14,186	-65.4		261	32.1
125	30	15,282	-70.0		264	20.0
100	30	16,602	-71.4		276	12.0
80	30	17,928	-68.1		24	1.7
70	30	18,741	-65.7		79	6.4
60	29	19,681	-62.0		90	9.9
50	29	20,816	-59.2		94	10.9
40	29	22,226	-55.8		87	13.0
30	29	24,071	-52.8		88	14.8
25	29	25,252	-51.1		88	15.5
20	27	26,705	-49.6		93	16.3
15	26	28,597	-47.1		81	15.2
10	24	31,306	-43.4		8[illegible]	18.8
7	19	33,724	-40.7		98	20.8
5	13	36,036	-35.9			

WAKE IS., PACIFIC AREA
1013 MB

Standard pressure surface (mb)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind	
					Direction	Speed
SURFACE	30	5	27.5	82	77	8.2
1000	30	118	26.7	81	[illegible]	[illegible]
950	30	571	[illegible]	8[illegible]	[illegible]	[illegible]
900	30	1,042	[illegible]	78	112	11.[illegible]
850	30	1,535	17.4	75	113	10.1
800	30	2,052	14.5	73	110	8.9
750	30	2,592	11.9	65	109	8.4
700	30	3,172	8.9	57	104	7.4
650	30	3,778	5.4	49	103	7.0
600	30	4,433	1.4	51	145	8.[illegible]
550	30	5,119	- 2.4	44	116	4.[illegible]
500	30	5,880	- 6.8	42	100	3.9
450	30	6,690	-11.1	39	62	2.1
400	30	7,592	-16.8	39	58	1.7
350	30	8,581	-23.7	36	340	.6
300	30	9,689	-32.1		282	4.3
250	30	10,949	-42.4		296	7.8
200	30	12,417	-54.8		278	8.0
175	29	13,260	-61.7		288	9.3
150	29	14,198	-68.7		284	10.7
125	28	15,275	-73.8		308	7.6
100	28	16,573	-73.9		53	5.8
80	26	17,888	-70.5		82	14.4
70	23	18,689	-67.8		86	20.0
60	22	19,625	-64.2		82	24.7
50	21	20,752	-60.8		86	30.9
40	21	22,147	-58.1		88	35.8
30	21	23,978	-53.5		86	41.2
25	20	25,159	-51.6		91	45.1
20	19	26,612	-49.4		88	47.2
15	18	28,513	-45.7		89	49.2
10	17	31,231	-42.7		89	45.3
7	12	33,669	-38.5		88	46.6
5	7	35,936	-37.7			

WASHINGTON, D. C.
1008 MB

Standard pressure surface (mb)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind	
					Direction	Speed
SURFACE	30	84	11.8	86	[illegible]	[illegible]
1000	30	156	14.4	8[illegible]	315	1.7
950	30	593	14.[illegible]	67	294	[illegible]
900	30	1,047	12.[illegible]	58	289	[illegible]
850	30	1,524	9.6	67	28[illegible]	10.1
800	30	2,026	7.[illegible]	58	279	13.8
750	30	2,559	[illegible]	54	273	17.1
700	30	3,118	3.[illegible]	47	270	19.8
650	30	3,714	[illegible]	42	[illegible]	[illegible]
600	30	4,353	- 3.4	42	265	27.[illegible]
550	30	5,032	- 7.5	41	262	27.4
500	30	5,772	-12.2		264	[illegible]
450	30	6,567	-17.5	37	265	35.8
400	30	7,443	-23.2		264	39.2
350	30	8,407	-30.3		262	44.5
300	30	9,487	-38.[illegible]		261	[illegible]
250	30	10,719	-46.8		263	54.4
200	30	12,172	-54.2		269	54.4
175	30	13,021	-57.6		264	48.6
150	30	13,985	-61.0		267	42.0
125	30	15,109	-64.4		267	33.6
100	30	16,472	-64.[illegible]		268	[illegible]
80	29	17,849	-61.6		26[illegible]	13.8
70	29	18,688	-59.8		264	9.1
60	29	19,647	-57.8		258	4.3
50	29	20,802	-55.8		275	.8
40	29	22,229	-53.8			.0
30	28	24,091	-51.0		82	[illegible]
25	26	25,273	-49.7		85	3.5
20	25	26,746	-47.2		86	4.5
15	17	28,649	-45.1		96	5.4
10	9	31,352	-41.9			
7						
5						

WINNEMUCCA, NEV.
869 MB

Standard pressure surface (mb)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind	
					Direction	Speed
SURFACE	30	1,310	8.1	35	132	3.3
1000	30	130				
950	30	562				
900	30	1,022				
850	30	1,500	16.3	27	110	1.2
800	30	2,015	15.0	27	326	1.4
750	30	2,551	11.1	30	260	4.5
700	30	3,129	7.3	32	263	7.0
650	30	3,728	3.0	37	244	10.7
600	30	4,376	- 2.0	39	247	13.6
550	30	5,057	- 6.4	32	257	14.8
500	30	5,801	-11.4		255	19.6
450	30	6,595	-17.2		262	17.9
400	30	7,474	-23.7		262	19.8
350	30	8,436	-31.2		264	23.7
300	30	9,509	-39.5		261	25.6
250	30	10,734	-47.9		262	33.6
200	29	12,184	-54.2		263	36.7
175	29	13,035	-56.7		261	37.7
150	29	14,005	-59.7		263	31.7
125	28	15,138	-62.4		266	27.6
100	27	16,508	-64.1		270	19.4
80	26	17,882	-62.8		276	8.2
70	25	18,706	-61.6		277	4.5
60	25	19,667	-58.9		269	1.9
50	25	20,816	-57.3		359	1.4
40	25	22,232	-55.4		23	3.3
30	22	24,076	-53.1		66	2.7
25	20	25,250	-51.2		40	2.3
20	19	26,706	-49.0		68	.8
15	18	28,605	-47.1		308	2.9
10						

WINSLOW, ARIZ.
853 MB

Standard pressure surface (mb)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind	
					Direction	Speed
SURFACE	29	1,492	14.5	68	176	2.9
1000	29	121				
950	29	567				
900	29	1,029				
850	29	1,523	14.9	65	185	2.9
800	29	2,040	16.7	47	242	7.2
750	29	2,584	13.3	48	248	8.2
700	29	3,164	8.9	51	238	9.1
650	29	3,771	4.7	51	233	10.3
600	29	4,421	.0	54	224	10.7
550	29	5,107	- 4.7	50	234	12.8
500	29	5,857	- 8.8		261	14.4
450	29	6,661	-13.9		263	15.9
400	29	7,550	-20.5		263	21.0
350	29	8,525	-27.5		260	27.6
300	29	9,615	-35.6		263	36.7
250	29	10,859	-44.5		259	41.4
200	28	12,319	-55.0		259	47.6
175	27	13,159	-59.6		261	48.0
150	27	14,112	-64.1		260	41.2
125	27	15,217	-68.1		266	27.8
100	27	16,549	-69.8		273	15.9
80	26	17,884	-66.9		252	2.3
70	26	18,706	-64.5		119	1.6
60	25	19,644	-61.6		102	4.9
50	25	20,781	-59.2		88	8.4
40	23	22,188	-55.9		86	8.4
30	19	24,038	-52.3		88	8.2
25	19	25,221	-51.1		84	7.0
20	18	26,675	-49.1		88	7.4
15	14	28,552	-47.5		95	4.9
10						

YAKUTAT, ALASKA
1007 MB

Standard pressure surface (mb)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind	
					Direction	Speed
SURFACE	30	12	6.8	95	89	4.7
1000	30	71	8.7	88	10[illegible]	6.6
950	30	493	7.2	78	116	10.1
900	30	938	4.4	76	13[illegible]	11.3
850	30	1,401	1.4	75	140	10.9
800	30	1,887	- 1.2	71	172	7.6
750	30	2,398	- 4.2	71	187	9.3
700	30	2,941	- 6.9	67	2[illegible]	11.5
650	30	3,510	-10.3	65	208	13.4
600	30	4,127	-14.1	57	216	15.7
550	30	4,775	-18.5	51	219	16.9
500	30	5,487	-23.1	43	220	21.2
450	30	6,242	-28.3	43	225	22.5
400	30	7,087	-34.3	40	226	28.8
350	30	8,008	-41.2		229	30.3
300	30	9,037	-48.5		233	34.2
250	30	10,224	-52.6		246	36.5
200	30	11,669	-51.5		248	37.7
175	30	12,537	-51.3		256	34.0
150	30	13,539	-51.5		254	29.9
125	30	14,721	-51.9		256	29.3
100	30	16,167	-52.0		260	26.0
80	29	17,608	-51.7		260	19.8
70	29	18,472	-52.1		257	20.2
60	28	19,474	-52.2		254	19.0
50	28	20,651	-52.8		257	18.3
40	27	22,086	-52.8		255	17.3
30	26	23,950	-52.0		262	17.9
25	25	25,134	-51.2		259	17.3
20	24	26,592	-50.2		264	17.7
15	19	28,472	-49.2		274	18.7
10	10	31,181	-45.9			

YUMA, ARIZ.
993 MB

Standard pressure surface (mb)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind	
					Direction	Speed
SURFACE	30	131	25.8	48	87	1.4
1000	30	65				
950	30	519	27.9	40	191	1.9
900	30	997	25.5	37	195	[illegible]
850	30	1,496	22.1	37	197	4.3
800	30	2,019	18.3	41	173	4.7
750	30	2,561	14.2	46	166	7.0
700	30	3,147	10.0	48	164	7.8
650	30	3,754	5.9	42	174	9.3
600	30	4,409	2.0	36	185	7.[illegible]
550	30	5,100	- 2.0	28	224	6.8
500	30	5,857	- 6.6	18	248	10.3
450	30	6,664	-12.1	16	253	13.0
400	30	7,561	-18.6	15	248	18.7
350	30	8,542	-25.8	16	249	23.9
300	30	9,640	-33.9	17	251	29.1
250	30	10,892	-43.4		251	34.2
200	30	12,357	-54.3		248	35.6
175	30	13,201	-59.8		248	34.8
150	29	14,151	-65.2		248	31.1
125	26	15,249	-69.3		254	25.6
100	25	16,571	-70.1		273	13.4
80	22	17,898	-68.0		312	3.1
70	22	18,712	-65.6		61	1.4
60	21	19,650	-62.4		114	4.7
50	20	20,784	-59.3		94	7.4
40	19	22,191	-57.0		90	11.1
30	15	24,022	-53.6		90	11.1
25	15	25,200	-51.7		94	13.6
20	14	26,658	-49.5		88	13.0
15	12	28,537	-48.5		78	14.8
10	10	31,210	-44.9			

Note: All observations scheduled at 1200, G.C.T. Pressures [illegible] are the average monthly station pressures for the month of record corrected to the height of the floors of the instrument shelters used for rawinsonde purposes. Number of observations refers to those of dynamic height only. Although the number of temperature observations at any given pressure surface is usually the same as for height, it is possible for temperature to be missing for one or more pressure surfaces of some observations. Relative humidity averages are limited to those observations with temperatures warmer than -40°C. Observations of wind speed and direction are sometimes lost due to limiting angles, i.e., elevation angles less than 6° above the horizon, or any obstruction above the horizon.

The temperature and wind values are based on 15 or more observations at the surface [illegible] at a standard pressure level for temperature and 10 for wind. Relative humidity data are not published for standard pressure surfaces for which less than 16 observations are available.

Relative humidity data are computed and expressed on the basis of vapor [illegible]. Unless otherwise indicated, they are obtained from lithium chloride hygr[illegible]

These average values for standard pressure surfaces were obtained by rawinsondes, dynamic height (geopotential) in units of .98 dynamic meter, temperature in degrees Celsius, relative humidity in percent and resultant winds in degrees and knots

SOLAR RADIATION DATA

Solar radiation intensities, tabulated in langleys per minute on a surface normal to the direction of the sun.

SEPTEMBER 1962

ALBUQUERQUE, N. MEX.

Date	Sun's zenith distance A.M. 78.7°	75.7°	70.7°	60.0°	*	P.M. 60.0°	70.7°	75.7°	78.7°
Air mass	4.19	3.35	2.51	1.67	*	1.67	2.51	3.35	4.19
Sep.									
4	0.63	0.77	----	1.06	1.23	----	----	----	----
5	----	----	----	----	1.22	----	----	----	----
6	.71	.84	0.94	1.13	1.29	----	----	----	----
7	----	----	----	1.08	----	----	0.94	0.83	0.74
8	.75	.85	.97	1.11	----	----	----	----	----
9	.62	.73	.89	1.08	1.31	1.09	.88	.77	.63
10	.77	.87	1.00	1.16	1.30	1.11	.91	.79	.64
11	.78	.89	.98	1.12	1.32	.98	.77	----	(.47)
13	----	.66	.80	----	----	1.03	.86	----	----
14	----	----	----	----	----	1.05	.91	.78	----
15	.74	.82	.94	1.11	1.24	----	.97	.86	.75
16	.71	.82	.94	1.04	1.25	----	----	----	----
17	----	----	----	1.12	1.30	----	.99	.87	.78
18	----	----	----	----	1.25	1.09	.92	.82	.68
19	.62	.70	.81	.99	1.25	----	----	----	----
21	----	----	----	----	1.27	1.10	.87	----	----
29	.79	.92	1.02	1.15	----	1.23	1.10	1.00	.89
30	.87	.97	1.09	1.25	1.40	1.23	1.10	1.01	.90
Averages	0.73	0.82	0.94	1.11	1.28	1.10	0.94	0.83	0.75

TUCSON, ARIZ.

Date	Sun's zenith distance A.M. 78.7°	75.7°	70.7°	60.0°	*	P.M. 60.0°	70.7°	75.7°	78.7°
Air mass	4.56	3.65	2.74	1.83	*	1.83	2.74	3.65	4.56
Sep.									
1	0.63	----	0.96	1.15	----	1.11	0.95	0.83	0.70
5	----	----	----	----	----	1.14	.97	----	----
7	.53	0.64	.78	.93	----	----	----	----	----
9	.73	.84	.97	1.14	----	1.18	1.04	.94	.85
10	.66	.76	.90	----	----	1.04	.86	.72	.65
11	.58	.66	.78	1.01	----	----	----	----	----
16	.73	.85	.96	1.14	----	----	----	----	----
17	.73	.83	.93	1.10	----	----	----	----	----
18	.58	.68	.78	.96	----	----	----	----	----
19	.41	.54	.66	.86	----	----	----	----	----
20	.61	.72	.83	1.04	----	----	----	----	----
21	----	.78	.91	1.06	----	----	----	----	----
25	----	.82	.94	1.12	----	----	----	----	----
27	----	----	----	----	----	----	----	.96	.87
28	.91	.98	1.11	----	----	----	----	----	----
29	.91	1.01	1.11	1.26	----	1.27	1.13	1.00	.90
30	----	----	----	----	----	1.14	1.01	.87	.78
Averages	0.67	0.78	0.90	1.06	----	1.15	0.94	0.88	0.79

OMAHA, NEBR.

Date	Sun's zenith distance A.M. 78.7°	75.7°	70.7°	60.0°	*	P.M. 60.0°	70.7°	75.7°	78.7°
Air mass	4.78	3.82	2.87	1.91	*	1.91	2.87	3.82	4.78
Sep.									
1	----	----	----	----	----	----	1.13	0.82	0.73
5	HS0.89	HS1.00	HS1.10	HS1.27	HS1.34	----	----	----	----
6	----	----	----	----	HS1.28	HS1.09	HS .90	----	----
10	.38	.70	1.07	1.21	1.37	HS1.27	HS1.10	HS .98	----
11	.78	.87	1.00	1.15	1.32	HM1.13	----	----	----
12	----	----	----	HS1.01	HM1.19	HM1.00	----	----	----
14	HI .43	HM .86	HS .98	HS1.15	HS1.28	----	----	----	----
15	----	----	----	----	HS1.25	HS1.07	HS .86	HS .69	HS .54
20	HS .90	HS .99	HS1.10	HS1.20	----	----	----	----	----
24	----	----	----	----	HM1.26	----	----	----	----
27	HS .89	HS1.00	HS1.11	HS1.25	HM1.38	S 1.24	.67	HS .97	HS .84
28	HI .69	HI .74	HM .88	HM1.08	----	----	----	----	----
Averages	0.71	0.88	1.04	1.17	1.30	1.13	0.93	0.84	0.69

HS	Slight haze
HM	Moderate haze
HI	Intense haze
S	Slight haze - indeterminable
M	Moderate haze - indeterminable
I	Intense haze - indeterminable
*	Values corresponding to true solar noon.
( )	Clouds present

MAUNA LOA OBS., HAWAII

Date	Sun's zenith distance A.M. 78.7°	75.7°	70.7°	60.0°	*	P.M. 60.0°	70.7°	75.7°	78.7°
Air mass	3.36	2.69	2.01	1.34	*	1.34	2.01	2.69	3.36
Sep.									
4	1.22	1.30	1.38	1.48	1.61	1.49	1.38	1.29	1.21
5	1.27	1.37	1.43	1.53	1.63	1.51	1.41	1.32	1.25
6	1.27	1.35	1.42	1.52	----	----	----	----	----
7	1.26	1.34	1.42	1.52	----	----	----	----	----
8	1.22	1.30	1.38	1.49	1.58	----	----	----	----
9	1.20	1.27	1.36	1.47	----	----	----	----	----
10	1.14	1.21	1.30	1.41	----	----	----	----	----
11	1.22	1.28	1.35	1.48	1.60	1.48	1.35	1.25	1.18
12	1.24	1.29	1.38	1.50	----	----	----	----	----
13	1.25	1.32	1.42	1.51	----	----	----	----	----
14	1.19	1.27	1.36	1.46	1.57	----	----	----	----
15	1.22	1.30	1.40	1.50	----	----	----	----	----
16	1.20	1.26	1.35	1.45	----	----	----	----	----
18	----	----	----	----	----	1.46	1.35	1.26	1.19
19	1.18	1.26	1.35	1.46	1.60	----	----	----	----
20	1.19	----	----	1.47	1.58	1.46	1.34	----	1.18
21	1.18	1.26	1.35	1.46	1.59	1.45	1.34	1.25	1.18
22	----	----	----	----	1.56	1.42	1.32	1.23	1.15
23	----	----	----	----	1.58	1.44	1.34	1.25	1.18
26	----	----	----	1.46	1.56	----	----	----	----
28	----	----	----	----	----	1.41	1.29	1.20	1.13
29	1.16	1.25	1.33	1.44	1.55	1.43	1.32	1.22	1.15
30	1.21	1.27	1.36	1.46	1.58	1.45	1.32	1.23	1.16
Averages	1.21	1.29	1.37	1.48	1.58	1.45	1.34	1.25	1.18

BLUE HILL OBS., MASS.

Date	Sun's zenith distance A.M. 78.7°	75.7°	70.7°	60.0°	*	P.M. 60.0°	70.7°	75.7°	78.7°
Air mass	4.89	3.92	2.94	1.96	*	1.96	2.94	3.92	4.89
Sep.									
3	----	----	----	----	1.17	1.01	0.89	0.72	0.62
4	0.72	0.79	0.89	1.04	----	----	----	----	----
6	----	----	----	----	1.24	1.12	.95	.85	.75
7	.83	.91	1.01	1.13	1.22	1.04	.90	.79	.68
8	.71	.81	.91	1.07	1.22	1.04	.90	.77	.67
12	.57	.65	.77	.95	----	----	----	----	----
13	.66	.75	.86	.98	----	.93	.64	.53	.42
15	.91	.99	1.10	1.23	1.39	1.22	1.03	.90	.82
16	.81	.90	1.01	1.18	----	----	----	----	----
18	.59	.71	.93	1.18	1.37	----	----	----	----
19	.87	.96	1.10	1.27	1.37	----	----	----	----
20	.88	.97	1.09	1.24	1.38	1.20	1.04	.86	.77
21	.97	1.06	1.17	1.32	1.44	1.28	1.12	1.00	.89
25	.62	.70	.82	.98	----	----	----	----	----
30	.81	.98	1.11	1.22	1.37	1.20	.96	.81	.65
Averages	0.77	0.86	0.98	1.14	1.32	1.12	0.94	0.80	0.70

MADISON, WIS.

Date	Sun's zenith distance A.M. 78.7°	75.7°	70.7°	60.0°	*	P.M. 60.0°	70.7°	75.7°	78.7°
Air mass	4.69	3.75	2.81	1.88	*	1.88	2.81	3.75	4.69
Sep.									
5	S 0.75	S 0.85	S 0.95	S 1.07	----	----	----	----	----
14	.74	.86	.98	1.04	1.22	----	----	----	----
20	----	----	----	----	----	S 1.19	----	----	----
29	I .80	I .89	I 1.01	M 1.14	M 1.25	----	----	----	----
Averages	0.76	0.87	0.98	1.08	1.14	1.19	----	----	----

GUAM, M. I.

Date	Sun's zenith distance A.M. 78.7°	75.7°	70.7°	60.0°	*	P.M. 60.0°	70.7°	75.7°	78.7°
Air mass	4.92	3.93	2.95	1.97	*	1.97	2.95	3.93	4.92
Sep.									
14	----	----	----	S 1.14	----	----	----	----	----

Langley is the unit used to denote one gram calorie per square centimeter. An explanation of the formula used in computing the air mass values for each station listed above appears in the February 1957 issue, Vol. 8, No. 2, page 63, of this publication.

SOLAR RADIATION DATA

Daily totals and weekly averages of solar radiation (direct and diffuse) received on a horizontal surface, tabulated in langleys.

1962	Albuquerque, N.Mex.	Ames, Iowa	Annette, Alaska	Apalachicola, Fla.	Astoria, Oreg.	Atlanta, Ga.	Barrow, Alaska	Bethel, Alaska	Bismarck, N. Dak.	Blue Hill Obs., Mass.	Boise, Idaho	Boston, Mass.	Brownsville, Tex.	Canton Island, Pacific Area	Caribou, Maine	Charleston, S. C.	Cleveland, Ohio	Columbia, Mo.
Sept. 3----	627	478	507	599	514	571	105	379	160	478	572	550	---	(601)	562	536	406	118
Sept. 4----	593	262	491	468	575	418	116	402	(591)	440	593	505	496	490	516	565	131	289
Sept. 5----	520	556	135	588	366	548	112	306	556	77	595	98	330	617	190	474	214	624
Sept. 6----	481	525	494	560	197	553	146	458	493	446	599	469	380	606	113	321	346	492
Sept. 7----	434	134	169	336	515	80	87	200	534	504	572	564	549	(631)	462	381	511	454
Sept. 8----	477	75	43	257	538	124	105	204	---	497	584	546	393	580	296	525	389	---
Sept. 9----	632	160	314	363	489	314	152	248	85	408	578	438	487	625	411	267	277	---
Average------	538	313	308	453	456	373	118	314	(403)	407	585	453	439	(593)	364	438	353	395
Sept. 10----	633	484	383	518	197	463	141	92	546	350	266	410	456	452	55	239	261	---
Sept. 11----	623	522	460	578	487	512	258	241	476	311	537	391	404	527	121	544	429	540
Sept. 12----	405	489	246	576	220	350	208	264	367	368	505	436	614	599	183	411	469	545
Sept. 13----	555	277	203	416	243	394	187	314	478	480	505	494	548	629	489	562	409	448
Sept. 14----	539	476	251	363	420	246	309	139	504	346	508	334	449	645	50	578	230	282
Sept. 15----	615	394	71	567	479	485	---	411	399	533	529	522	438	595	412	533	322	161
Sept. 16----	568	316	83	566	483	383	---	311	446	464	539	468	379	598	232	580	---	448
Average------	563	423	242	512	361	405	221	253	459	408	484	437	470	578	220	492	353	404
Sept. 17----	600	501	62	505	488	400	87	127	498	315	540	342	379	617	224	371	279	404
Sept. 18----	564	447	272	312	294	541	212	105	482	469	466	463	473	658	135	402	366	548
Sept. 19----	583	514	462	250	150	584	152	180	499	449	510	435	499	647	357	476	203	487
Sept. 20----	343	500	241	504	204	563	---	77	410	435	483	469	---	651	247	420	227	566
Sept. 21----	551	275	159	331	101	585	65	205	486	532	446	489	497	642	365	572	333	197
Sept. 22----	314	448	85	154	358	338	---	59	400	380	472	333	536	616	260	93	250	167
Sept. 23----	161	270	27	95	417	498	96	99	406	376	475	292	505	---	440	360	354	124
Average------	445	422	187	307	288	501	122	122	454	422	485	403	482	638	290	385	287	356
Sept. 24----	134	148	250	334	418	430	42	80	374	249	480	255	514	607	301	559	379	138
Sept. 25----	298	416	176	209	113	339	66	140	412	382	478	383	509	609	282	389	73	382
Sept. 26----	178	351	180	334	209	68	87	104	453	343	415	350	422	643	53	183	157	523
Sept. 27----	329	471	151	301	367	561	60	174	442	41	269	26	276	652	83	354	174	523
Sept. 28----	430	452	175	---	228	591	50	---	319	85	99	56	339	644	179	503	36	506
Sept. 29----	567	362	50	581	318	570	42	265	234	219	473	125	542	657	71	455	189	461
Sept. 30----	596	203	270	252	393	560	88	137	302	415	456	390	517	672	88	497	404	52
Average------	362	343	179	335	292	445	62	150	362	248	381	227	446	640	151	420	202	369

1962	Dodge City, Kans.	East Lansing, Mich.	El Paso, Tex.	Ely, Nev.	Fairbanks, Alaska	Flaming Gorge, Utah	Fort Worth, Tex.	Fresno, Calif.	Gainesville, Fla.	Glasgow, Mont.	Grand Junction, Colo.	Great Falls, Mont.	Greensboro, N. C.	Griffin, Ga.	Cape Hatteras, N.C.	Indianapolis, Ind.	Lake Charles, La.	Lander, Wyo.	Laramie, Wyo.	Las Vegas, Nev.
Sept. 3----	503	388	518	665	314	301	603	629	---	430	733	443	336	599	---	229	340	499	521	642
Sept. 4----	481	350	168	(504)	248	399	521	635	---	578	683	540	245	498	297	281	320	549	490	636
Sept. 5----	219	556	100	594	233	568	176	633	371	566	652	526	527	605	443	514	391	577	537	632
Sept. 6----	448	611	531	642	329	543	(116)	597	552	445	432	475	241	640	365	569	374	578	509	633
Sept. 7----	125	580	654	442	227	---	159	611	222	230	483	95	393	92	324	579	212	567	331	611
Sept. 8----	549	395	531	637	353	583	447	599	364	102	574	410	358	192	592	397	488	236	279	604
Sept. 9----	383	147	656	621	---	623	362	565	381	458	706	517	296	372	574	133	528	577	528	616
Average------	387	432	451	(587)	284	503	(341)	610	378	401	609	430	342	428	433	386	379	512	456	625
Sept. 10----	548	340	560	599	263	583	526	576	595	420	700	176	448	583	599	410	500	450	537	597
Sept. 11----	569	383	621	604	182	579	539	584	495	277	648	445	612	447	516	568	397	445	439	612
Sept. 12----	568	529	618	602	118	584	578	597	432	399	644	407	666	369	616	511	338	507	528	608
Sept. 13----	543	239	592	612	189	582	590	594	501	288	569	199	564	525	616	396	388	528	523	478
Sept. 14----	274	556	505	600	175	460	583	589	403	430	588	253	525	291	595	332	486	498	373	590
Sept. 15----	409	417	616	594	127	516	510	587	400	458	607	435	329	613	437	184	386	481	465	588
Sept. 16----	351	466	618	581	108	560	564	577	475	411	---	450	46	415	233	484	281	526	473	578
Average------	466	419	590	599	166	552	555	586	472	383	626	338	456	463	516	412	396	491	477	579
Sept. 17----	558	445	602	579	---	562	446	571	560	488	---	461	262	445	240	541	439	523	505	572
Sept. 18----	519	429	538	552	312	534	535	589	503	482	---	453	592	574	568	539	495	510	476	530
Sept. 19----	156	351	601	562	---	440	543	586	221	475	---	391	574	639	551	450	516	490	458	549
Sept. 20----	114	371	606	567	149	365	477	573	216	463	274	428	440	605	101	---	492	273	263	552
Sept. 21----	413	434	551	567	269	166	537	563	147	429	310	222	596	651	594	---	528	187	257	589
Sept. 22----	110	210	447	561	237	526	489	553	260	309	612	393	227	357	98	---	481	472	487	539
Sept. 23----	127	436	297	543	155	529	497	541	84	332	446	367	147	601	438	---	466	483	468	493
Average------	285	382	520	562	224	446	504	568	284	425	411	388	406	553	370	---	488	420	416	546
Sept. 24----	258	416	215	367	114	525	523	527	326	453	554	413	497	529	545	---	453	333	415	545
Sept. 25----	484	87	(378)	407	60	488	202	507	334	433	555	413	296	297	421	---	455	475	432	497
Sept. 26----	474	248	(236)	396	153	495	436	523	376	444	571	413	100	114	546	290	240	177	469	368
Sept. 27----	464	290	417	409	221	220	556	501	416	443	253	315	271	602	26	423	467	302	389	411
Sept. 28----	429	251	563	475	215	320	481	485	319	415	198	291	423	591	574	---	468	388	289	533
Sept. 29----	444	475	596	535	105	210	347	534	462	173	529	405	540	602	466	507	456	449	196	520
Sept. 30----	389	361	584	533	64	519	370	516	360	342	603	416	468	610	514	503	396	481	448	527
Average------	420	304	(427)	446	133	397	417	513	370	386	466	381	371	478	442	431	419	415	377	486

Note.--Langley is the unit used to denote one gram calorie per square centimeter.
Values in parentheses are interpolated.

SOLAR RADIATION DATA

Daily totals and weekly averages of solar radiation (direct and diffuse) received on a horizontal surface, tabulated in langleys.

SEPTEMBER 1962

	Lemont, Ill.	Little Rock, Ark.	Los Angeles, Calif.	Los Angeles, Calif. (Urban)	Manhattan, Kans.	Matanuska, Alaska	Mauna Loa Obs., Hawaii	Medford, Oreg.	Miami, Fla.	Midland, Tex.	Nashville, Tenn.
1962											
Sept. 3----	177	503	277	611	333	317	---	570	600	631	432
Sept. 4----	388	380	578	582	261	428	682	551	541	577	412
Sept. 5----	530	---	548	620	541	437	695	535	517	107	156
Sept. 6----	573	103	604	634	332	250	683	528	472	166	358
Sept. 7----	532	322	576	533	108	202	577	550	486	490	517
Sept. 8----	203	277	522	304	226	(39)	599	559	620	649	109
Sept. 9----	367	155	368	387	58	---	611	569	598	551	320
Average------	396	290	496	524	266	(279)	641	552	548	453	329
Sept. 10----	517	347	338	419	555	356	236	298	527	499	---
Sept. 11----	542	479	513	554	483	104	677	426	562	618	518
Sept. 12----	485	413	479	526	474	98	465	349	456	621	510
Sept. 13----	400	446	559	544	458	174	354	469	522	601	302
Sept. 14----	509	422	558	587	394	308	661	415	(332)	604	291
Sept. 15----	312	238	520	571	347	66	592	516	556	603	376
Sept. 16----	485	324	541	561	314	255	356	520	590	580	153
Average------	464	381	501	537	432	194	477	427	(506)	589	358
Sept. 17----	503	439	448	553	354	322	257	510	533	557	361
Sept. 18----	408	396	521	538	477	332	611	498	322	516	512
Sept. 19----	460	391	539	527	333	(16)	648	419	128	594	321
Sept. 20----	527	535	541	558	452	95	646	379	132	542	523
Sept. 21----	487	519	514	535	23	222	646	474	79	563	433
Sept. 22----	437	456	498	536	89	---	633	462	513	527	205
Sept. 23----	470	338	503	506	152	---	631	471	347	568	444
Average------	470	439	509	536	268	(197)	582	459	294	552	400
Sept. 24----	120	239	505	497	298	---	575	446	483	541	158
Sept. 25----	145	99	446	462	426	---	601	390	602	---	72
Sept. 26----	276	434	349	296	444	---	618	441	486	167	177
Sept. 27----	280	480	(313)	271	487	---	612	(231)	567	512	411
Sept. 28----	419	479	(381)	338	449	---	606	---	319	567	479
Sept. 29----	474	418	450	466	108	---	618	416	302	559	442
Sept. 30----	287	344	466	483	233	---	632	438	331	557	412
Average------	286	356	(416)	402	349	---	609	(394)	441	484	307

	Newport, R. I.	North Omaha, Nebr.	Oak Ridge, Tenn.	Oklahoma City, Okla.	Page, Ariz.	Phoenix, Ariz.	Portland, Maine	Prosser, Wash.	Rapid City, S. Dak.	Riverside, Calif.	St. Cloud, Minn.
1962											
Sept. 3----	506	347	358	282	606	608	594	556	---	675	256
Sept. 4----	506	466	347	101	581	586	609	569	580	675	497
Sept. 5----	99	603	363	124	548	553	190	568	547	670	563
Sept. 6----	490	543	506	136	514	567	314	558	540	651	541
Sept. 7----	523	202	390	58	558	589	599	503	494	612	444
Sept. 8----	553	93	231	297	532	596	596	554	112	500	197
Sept. 9----	493	110	351	108	599	596	486	523	184	501	106
Average------	453	338	363	158	562	585	484	547	410	612	372
Sept. 10----	256	589	243	569	569	588	276	124	536	462	153
Sept. 11----	422	559	464	544	559	579	512	524	438	565	492
Sept. 12----	467	528	533	526	539	476	528	373	509	542	489
Sept. 13----	501	255	473	534	500	380	529	342	500	592	514
Sept. 14----	393	506	302	522	525	553	331	514	443	619	255
Sept. 15----	518	520	293	273	514	544	551	536	456	601	439
Sept. 16----	513	290	54	436	529	529	435	507	377	588	451
Average------	439	464	337	486	533	521	452	417	466	567	399
Sept. 17----	321	497	409	287	521	526	312	515	485	583	466
Sept. 18----	395	394	527	518	511	516	527	402	483	561	458
Sept. 19----	437	467	483	410	454	417	625	437	371	541	478
Sept. 20----	317	520	511	208	286	513	415	469	364	586	504
Sept. 21----	491	113	498	449	466	536	635	462	453	600	388
Sept. 22----	471	391	404	476	513	210	342	461	274	543	402
Sept. 23----	311	183	483	414	359	119	446	---	450	---	153
Average------	392	366	473	395	444	405	472	458	412	569	407
Sept. 24----	155	483	408	262	505	363	188	---	172	---	188
Sept. 25----	335	475	102	77	493	136	---	435	423	524	409
Sept. 26----	393	466	118	480	471	402	152	434	440	417	436
Sept. 27----	55	503	413	449	356	445	49	360	431	388	408
Sept. 28----	96	448	429	478	362	408	49	251	386	379	461
Sept. 29----	369	173	470	333	488	529	56	88	208	519	363
Sept. 30----	437	322	408	165	496	526	323	---	64	538	34
Average------	263	410	335	321	453	401	136	314	303	461	328

	Salt Lake City, Utah	San Antonio, Tex.	Santa Maria, Calif.	S. Ste. Marie, Mich.	Sayville, New York	Seattle, Wash.	Seattle-Tacoma, Wash.	Shreveport, La.	Spokane, Wash.	State College, Pa.	Stillwater, Okla.	Swan Island, W. I.	Tampa, Fla.	Tucson, Ariz.	Washington, D. C. (Obs & Test Dev Ctr)
1962															
Sept. 3----	647	502	538	490	372	490	(529)	497	604	456	287	517	538	607	178
Sept. 4----	619	540	550	132	392	516	557	486	591	65	222	474	482	387	66
Sept. 5----	478	440	565	499	66	494	543	134	589	97	183	541	409	585	185
Sept. 6----	633	412	---	347	519	481	516	159	578	643	148	501	319	445	---
Sept. 7----	574	474	427	478	456	363	385	271	557	621	53	122	360	542	527
Sept. 8----	642	422	446	310	488	473	541	206	571	567	296	226	486	568	529
Sept. 9----	636	196	495	84	451	421	488	271	559	278	94	461	587	608	321
Average------	604	427	504	334	392	463	(508)	289	578	390	183	406	454	535	301
Sept. 10----	623	362	326	114	290	131	159	241	129	361	567	451	518	588	437
Sept. 11----	549	---	453	167	430	352	467	419	492	573	548	339	480	529	581
Sept. 12----	618	535	430	374	431	378	409	467	---	578	536	504	500	412	580
Sept. 13----	596	515	552	170	429	125	175	509	175	552	524	289	522	467	542
Sept. 14----	572	531	592	523	326	318	392	499	334	226	512	480	418	560	297
Sept. 15----	581	583	614	523	458	438	483	325	474	461	246	534	476	546	437
Sept. 16----	579	608	599	128	454	460	473	434	---	564	440	198	598	509	277
Average------	588	522	509	286	403	315	365	413	321	473	482	399	502	516	450
Sept. 17----	573	294	472	173	137	453	483	458	446	80	523	253	591	542	106
Sept. 18----	577	537	588	444	346	383	391	495	412	305	507	444	586	546	524
Sept. 19----	549	531	568	396	256	209	190	500	364	78	437	514	234	453	289
Sept. 20----	451	537	591	289	263	209	229	508	414	326	227	298	22	524	500
Sept. 21----	544	541	516	150	438	127	(101)	512	387	565	348	517	246	481	536
Sept. 22----	566	573	526	180	210	112	(124)	503	357	245	460	522	272	303	423
Sept. 23----	570	529	520	317	269	224	277	438	379	416	374	478	152	431	336
Average------	547	506	540	278	274	245	(256)	487	394	288	411	432	300	469	388
Sept. 24----	526	459	471	93	314	350	350	448	363	468	86	382	493	271	481
Sept. 25----	539	448	354	440	185	337	407	392	343	98	153	332	562	427	143
Sept. 26----	535	94	265	237	275	146	135	279	305	253	467	394	557	95	94
Sept. 27----	260	154	394	354	29	275	273	507	210	61	459	533	432	483	35
Sept. 28----	449	556	457	458	141	94	147	501	44	90	459	528	284	511	229
Sept. 29----	---	445	531	267	344	159	180	418	328	113	265	509	341	551	355
Sept. 30----	---	440	511	438	348	353	392	380	370	452	119	505	374	536	457
Average------	462	371	426	327	234	245	269	418	280	219	287	455	435	411	256

Note.--Langley is the unit used to denote one gram calorie per square centimeter.
Values in parentheses are interpolated.

NET RADIATION

Net radiation in langleys per day (midnight to midnight) at Huntley, Mont., during the month

SEPTEMBER 1962

Date.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	Avg.
Langleys. . .	311	312	61	290	277	271	240	#	256	186	198	49	101	269	232	239	238	247	221	231	51	126	199	231	214	236	235	246	160	161		

The measurement is made with a Beckman and Whitley net exchange radiometer over a plot of sod. . The value represents the total incoming minus the total outgoing radiation of all wave lengths.
# rain

These data are of an experimental nature and are published as received from the Huntley Exp. Station . The instrument with which they were measured has not been checked by the Weather Bureau.

TOTAL OZONE DATA

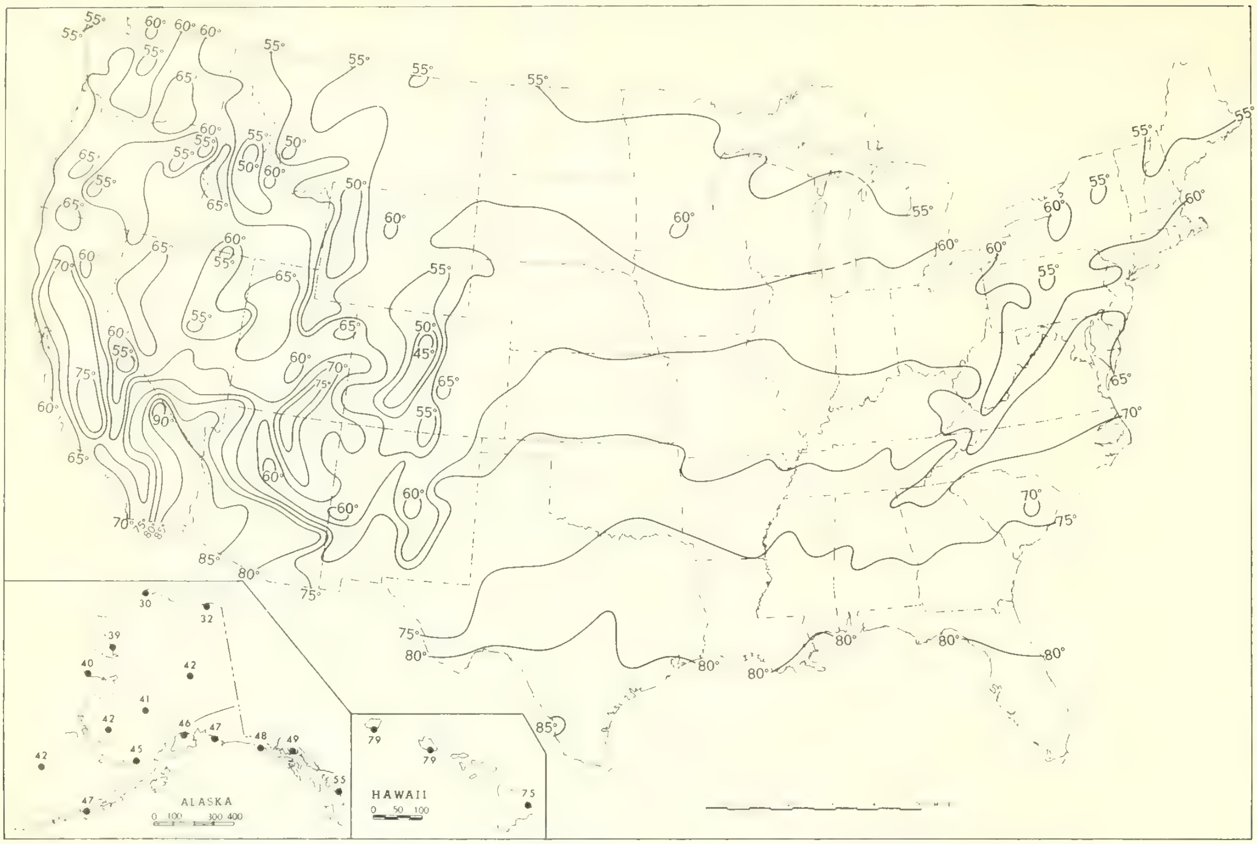
The total amount of ozone is expressed in 10^{-3} cm at STP. These data are provisional values applicable to local noon, and are obtained from measurements with a Dobson ozone spectrophotometer using the sun or zenith sky as a light source (see explanation below).

Station	Day of month																														
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31
Bismarck, N. Dak.	302	311	—	286	286	285	285	---	—	285	284	281	277	274	263	---	281	256	268	279	264	282	---	255	261	255	264	---	---	—	
Caribou, Maine	281	279	293	295	290	---	289	312	316	322	336	343	289	323	326	325	331	341	---	337	331	335	333	302	304	---	334	318	---	320	
Green Bay, Wis.	262	278	255	---	276	277	275	---	—	---	272	254	---	259	249	---	---	268	311	294	---	309	---	---	291	309	291	298	295	292	
Hallett, Antarctica	---	---	---	---	---	---	---	---	---	271	277	288	273	*000	*000	*000	356	*000	*000	416	394	382	377	*000	345	321	286	*000	*000	*000	
Mauna Loa, Hawaii	---	—	—	275	275	273	269	271	278	274	279	284	279	---	267	266	---	270	266	267	267	269	—	---	---	258	262	266	270	268	
Midland, Texas	---	---	---	263	---	---	278	283	272	276	272	—	277	278	276	271	270	265	254	272	292	255	266	271	—	---	291	282	298	277	
Nashville, Tenn.	279	282	285	288	291	292	292	—	287	291	296	290	290	289	291	---	292	292	300	300	298	---	300	---	---	305	310	314	320	313	
Sterling, Va.	—	---	---	—	327	298	317	---	---	308	---	283	287	290	---	—	---	---	290	320	306	—	---	309	305	330	---	333	---	---	

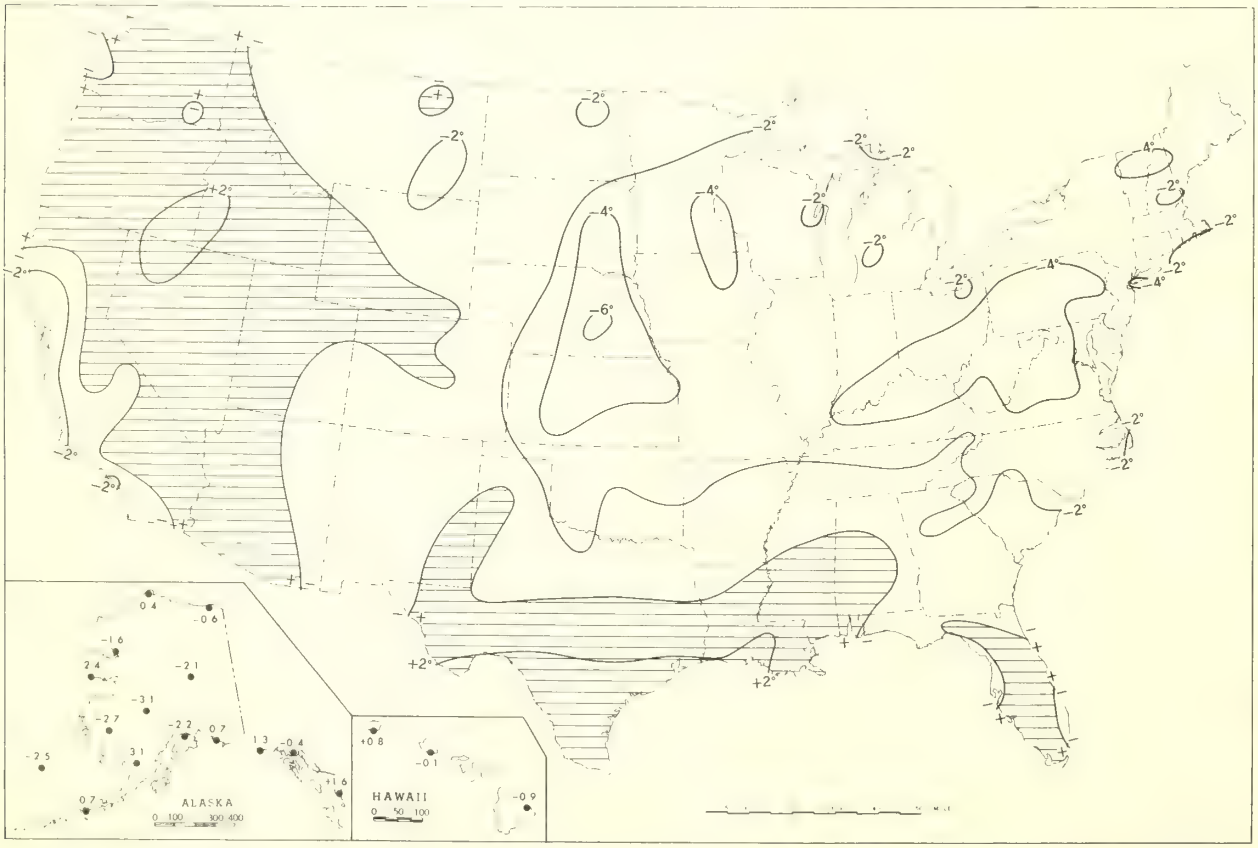
The spectrophotometer measures the total amount of ozone in the atmosphere, i. e., the amount contained in a vertical column of air extending from the ground to the top of the atmosphere in the vicinity of the station The amount of ozone in this column is expressed in terms of thickness of a layer it would occupy at standard temperature and pressure.

The standard method of measurement is that on direct sun using A(3055Å and 3254Å) and D(3176Å and 3398Å) wavelength pairs. Observations made on the clear zenith sky are slightly less accurate, and are marked with a dagger (†). Observations made on zenith cloud are least reliable, and are marked with an asterisk (*). A detailed description of the spectrophotometer and observational procedures may be found in the "Observers' Handbook For the Ozone Spectrophotometer", Annals of the International Geophysical Year, Volume V, Pergaman Press, 1957.

Chart I. A. Average Temperature (°F.) at Surface, September 1962.



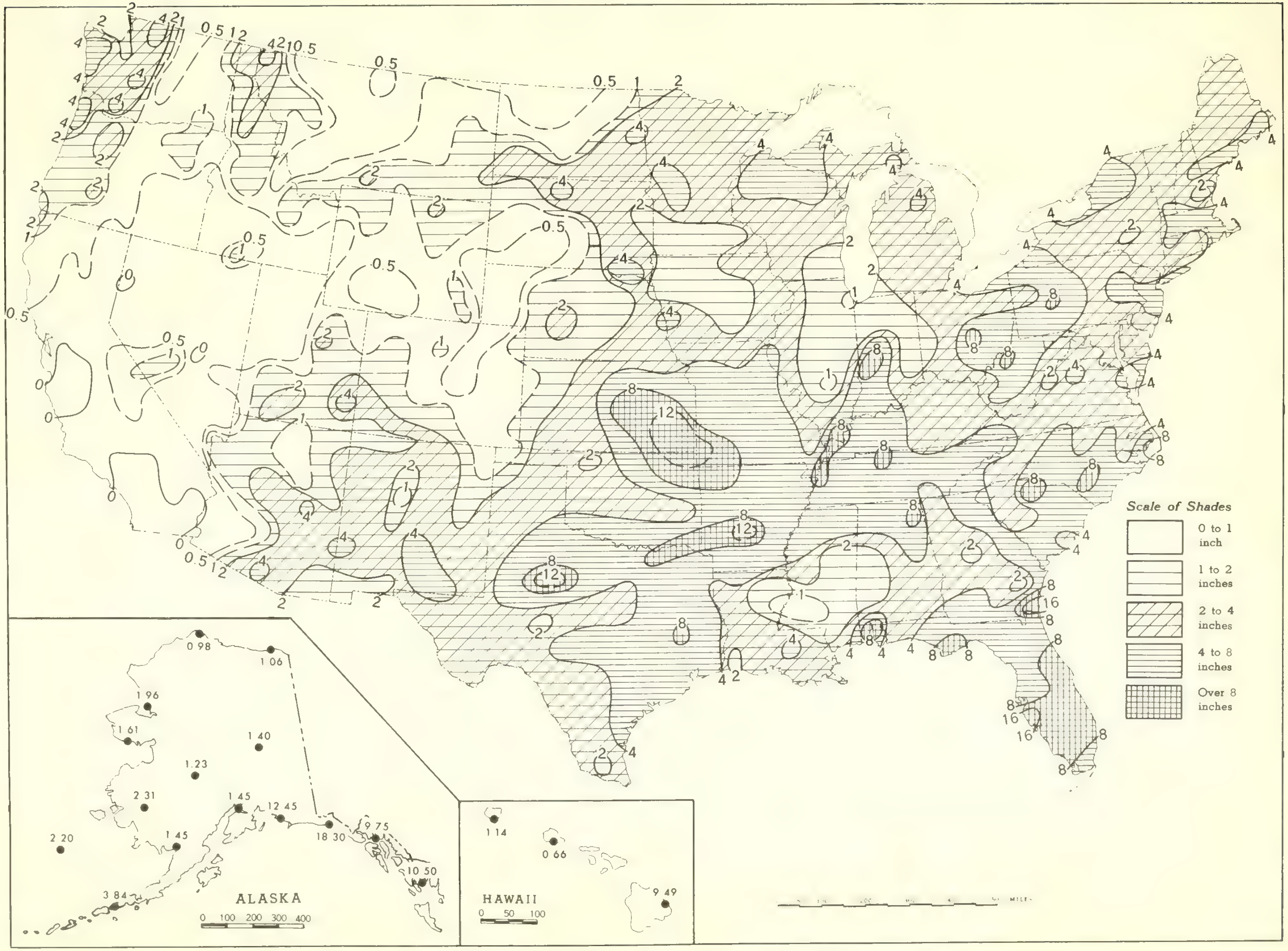
B. Departure of Average Temperature from Normal (°F.), September 1962.



A. Based on reports from over 870 Weather Bureau and cooperative stations. The monthly average is half the sum of the monthly average maximum and monthly average minimum, which are the average of the daily maxima and daily minima, respectively.

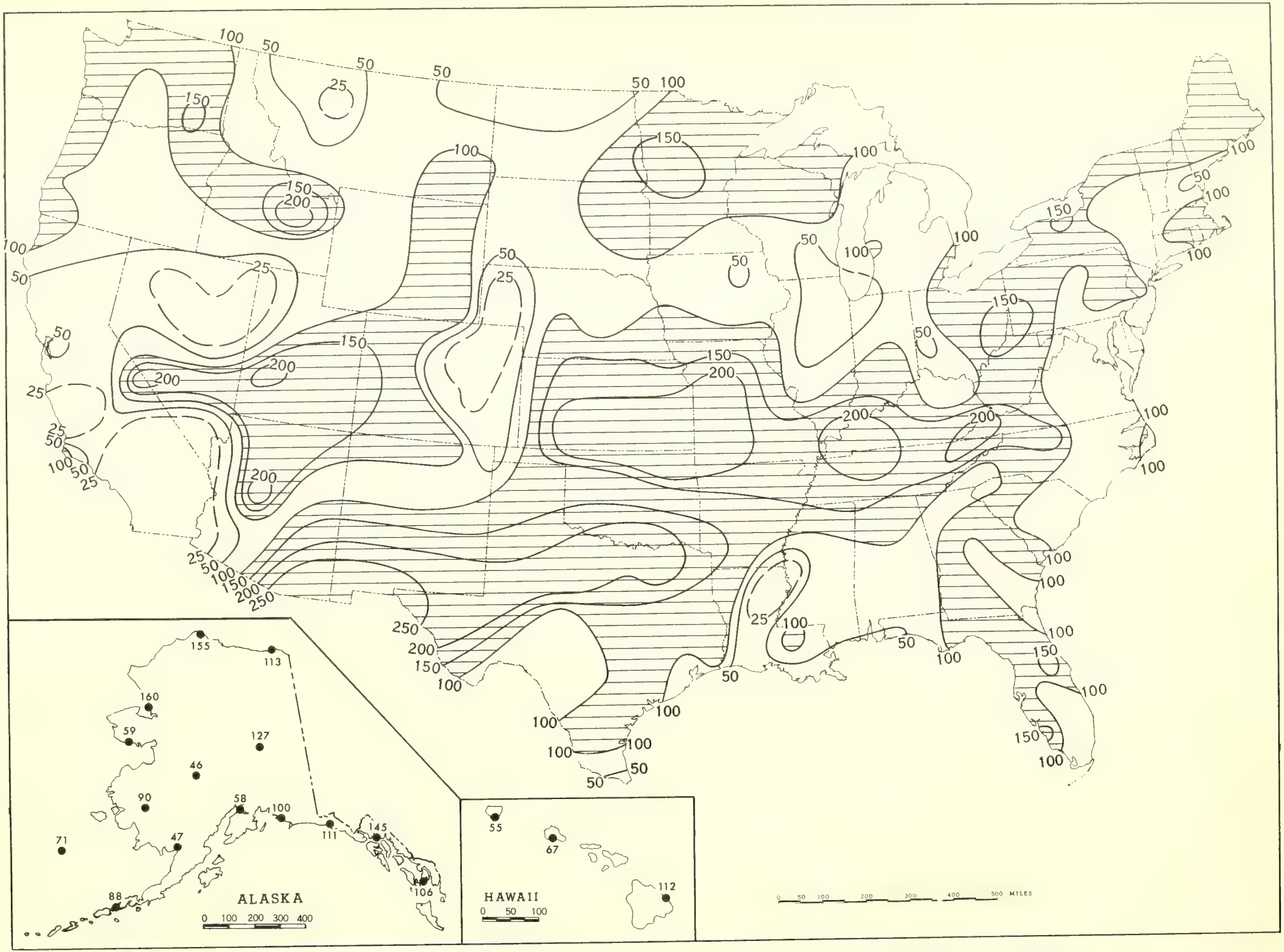
B. Departures from normal are based on the 30-yr. normals (1931-60) for first-order Weather Bureau stations.

Chart II. Total Precipitation (Inches), September 1962.



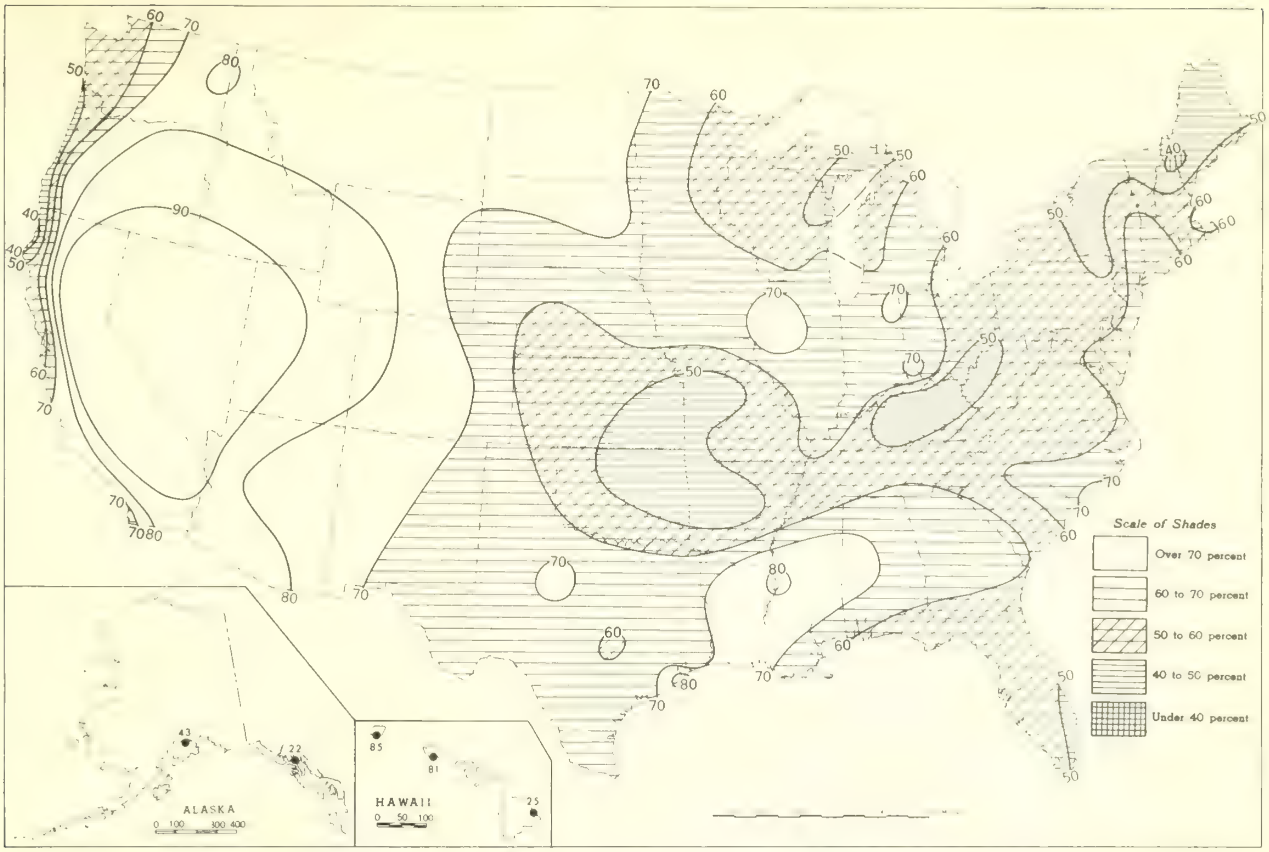
Based on daily precipitation records at about 870 Weather Bureau and cooperative stations.

Chart III. Percentage of Normal Precipitation, September 1962.

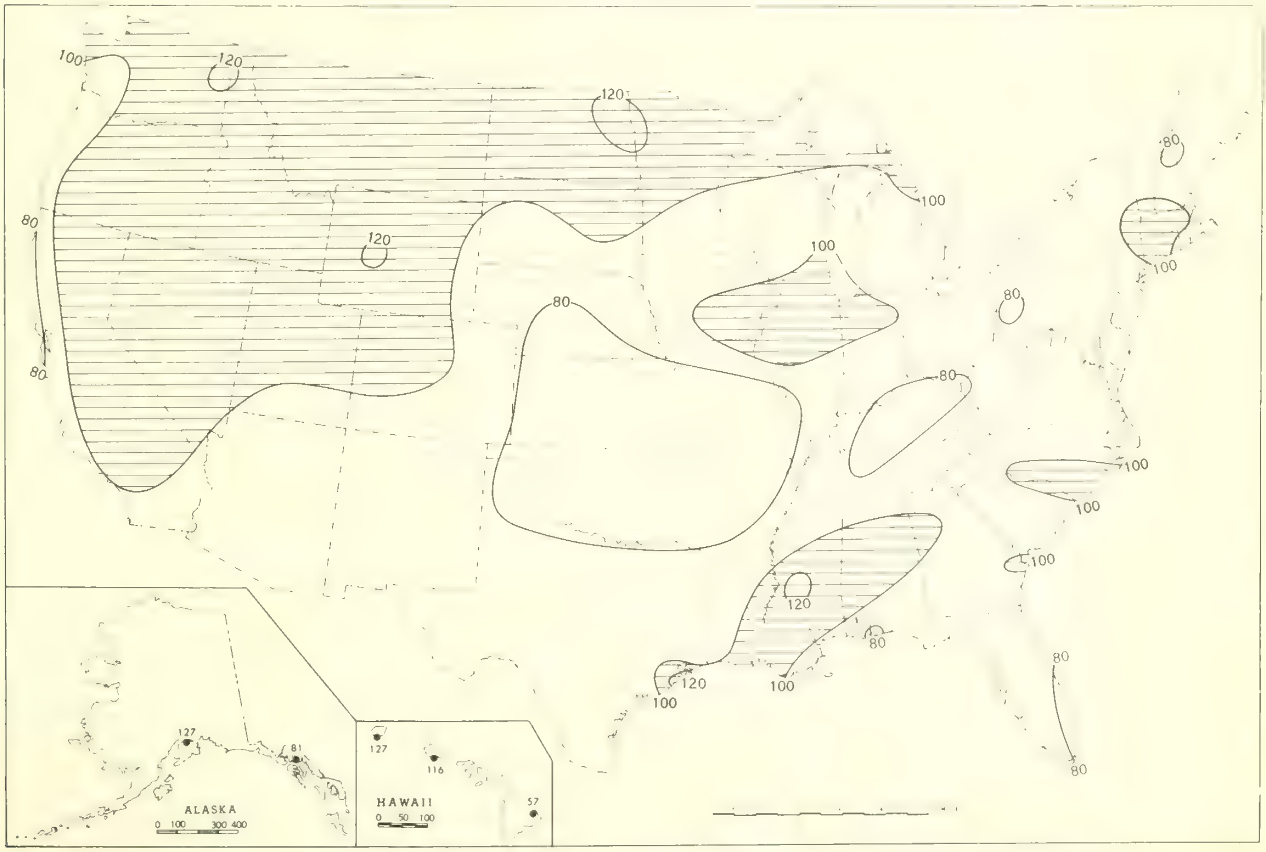


Normal monthly precipitation amounts are computed from 30-yr. normals (1931-60) for first-order Weather Bureau stations.

Chart VI. A. Percentage of Possible Sunshine, September 1962.

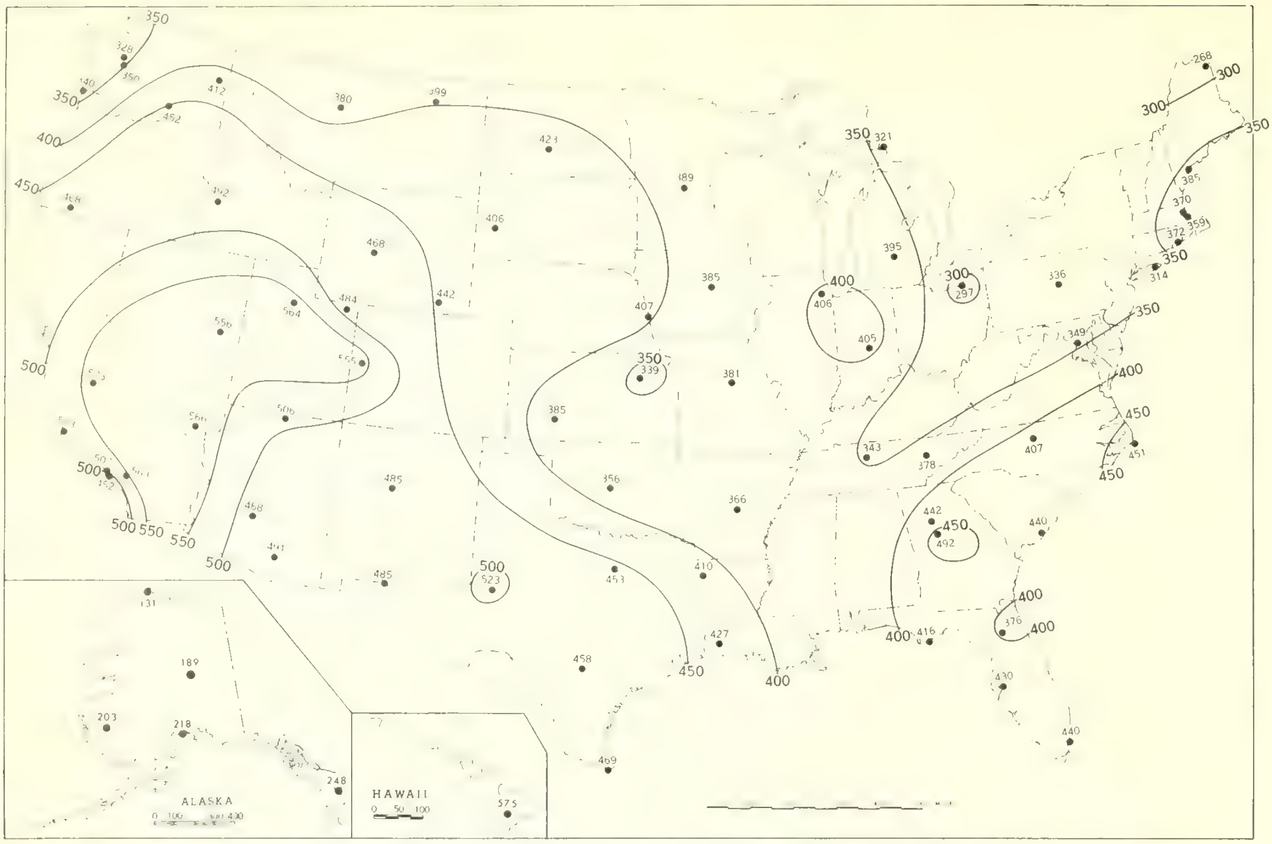


B. Percentage of Mean Monthly Sunshine, September 1962.

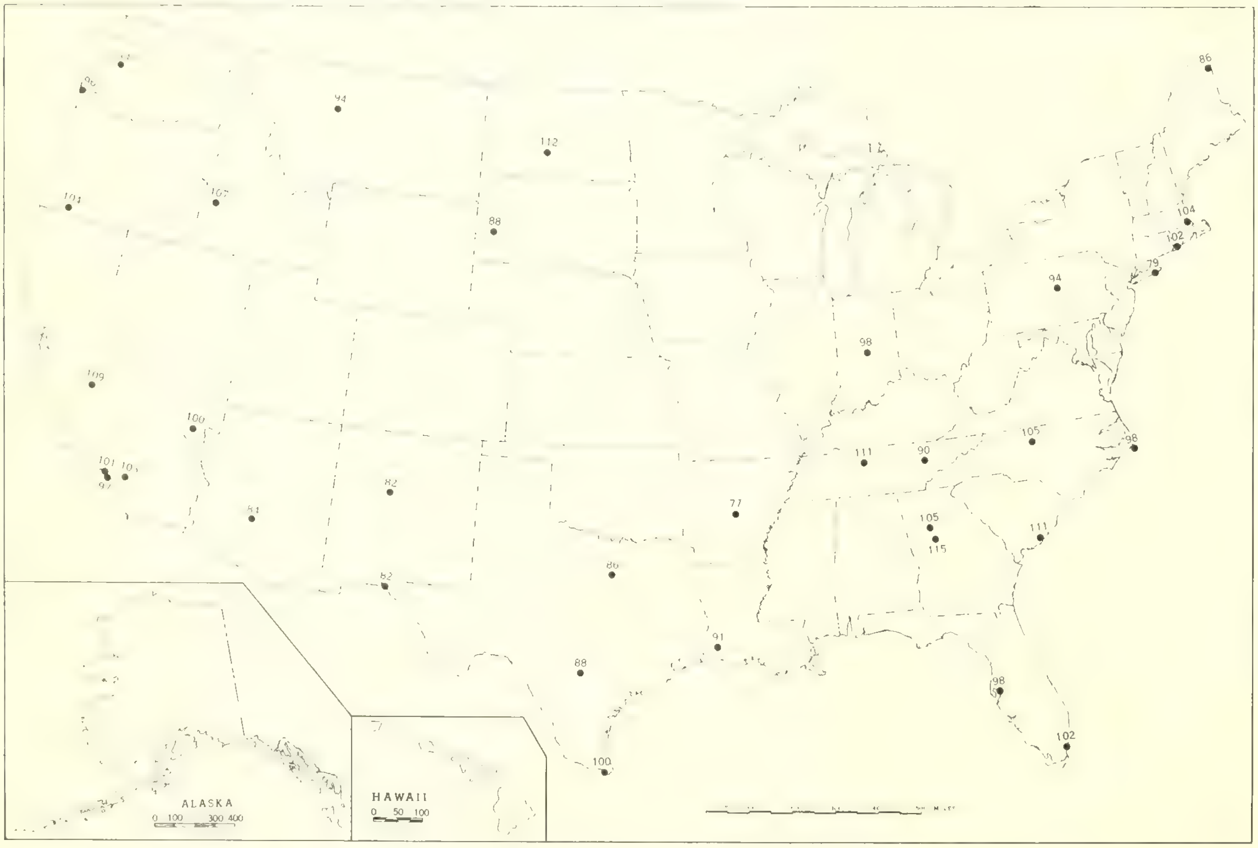


A. Computed from total number of hours of observed sunshine in relation to total number of possible hours of sunshine during month. B. Means are computed for stations having at least 10 years of record.

Chart VII. A. Average Daily Values of Solar Radiation, Langleys, September 1962.



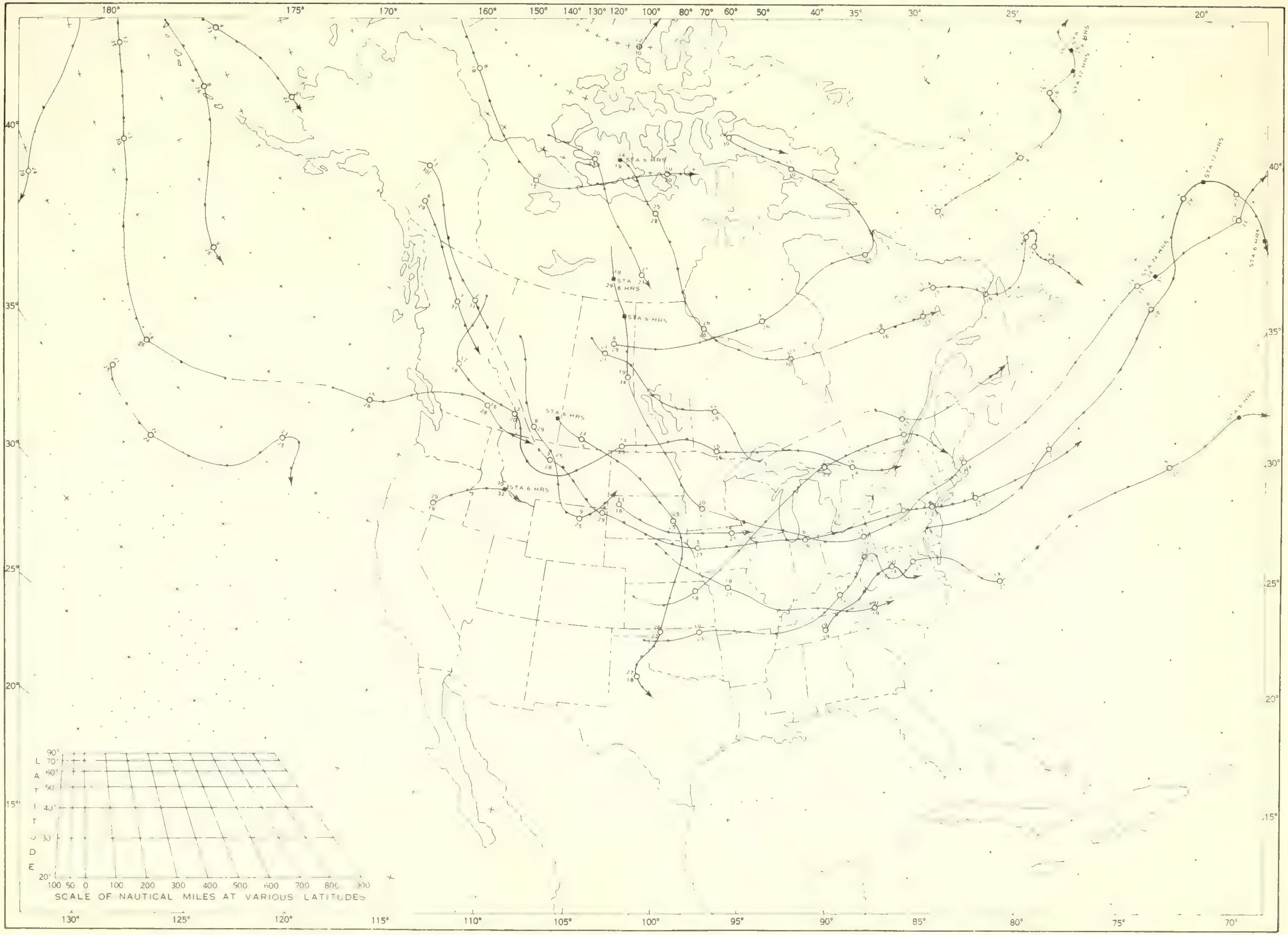
B. Percentage of Mean Daily Solar Radiation, September 1962.



A. Mean daily solar radiation, direct + diffuse, received on a horizontal surface in langleys (1 langley = 1 gm. cal. cm.$^{-2}$) and recorded in International Pyrheliometer Scale of 1956.

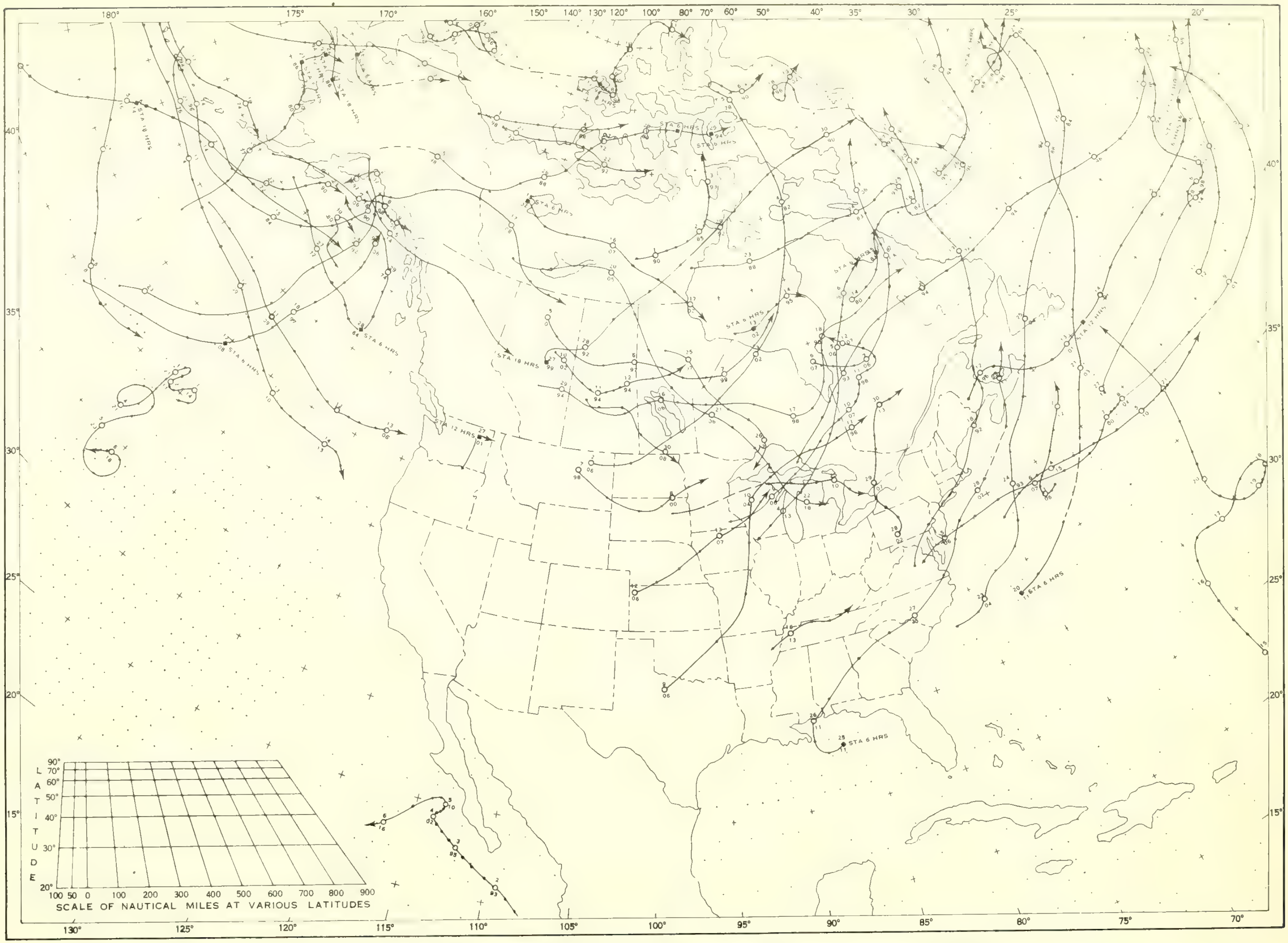
B. Percentage of the mean based on the period 1953-57, and corrected to the International Pyrheliometer Scale of 1956.

Chart VIII. Tracks of Centers of Anticyclones at Sea Level, September 1962.



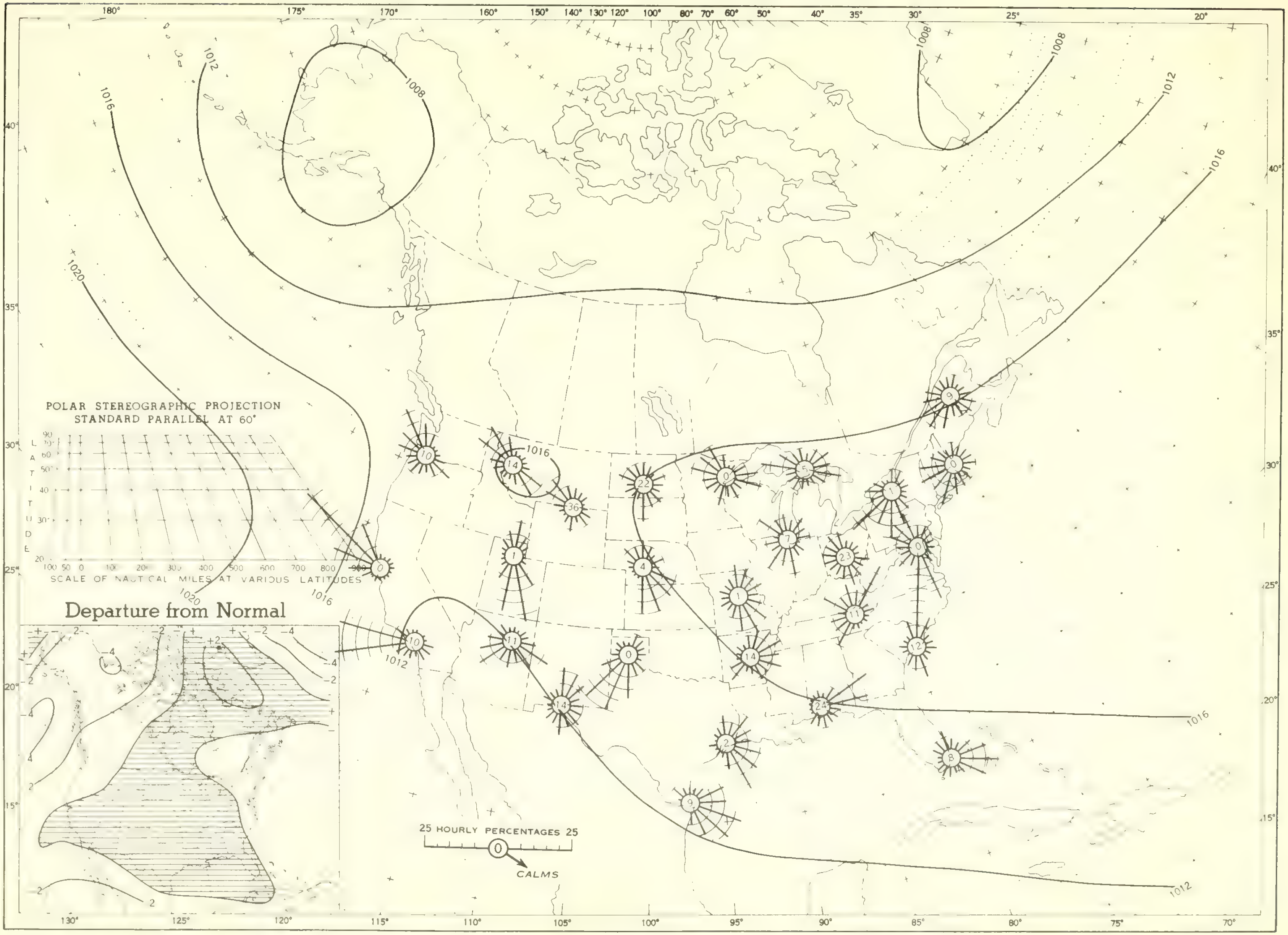
Circle indicates position of center at 7:00 a. m. E. S. T. Figure above circle indicates date, figure below, pressure to nearest millibar. Dots indicate intervening 6-hourly positions. Squares indicate position of stationary center for period shown. Dashed line in track indicates reformation at new position. Only those centers which could be identified for 24 hours or more are included.

Chart IX. Tracks of Centers of Cyclones at Sea Level. September 1962.



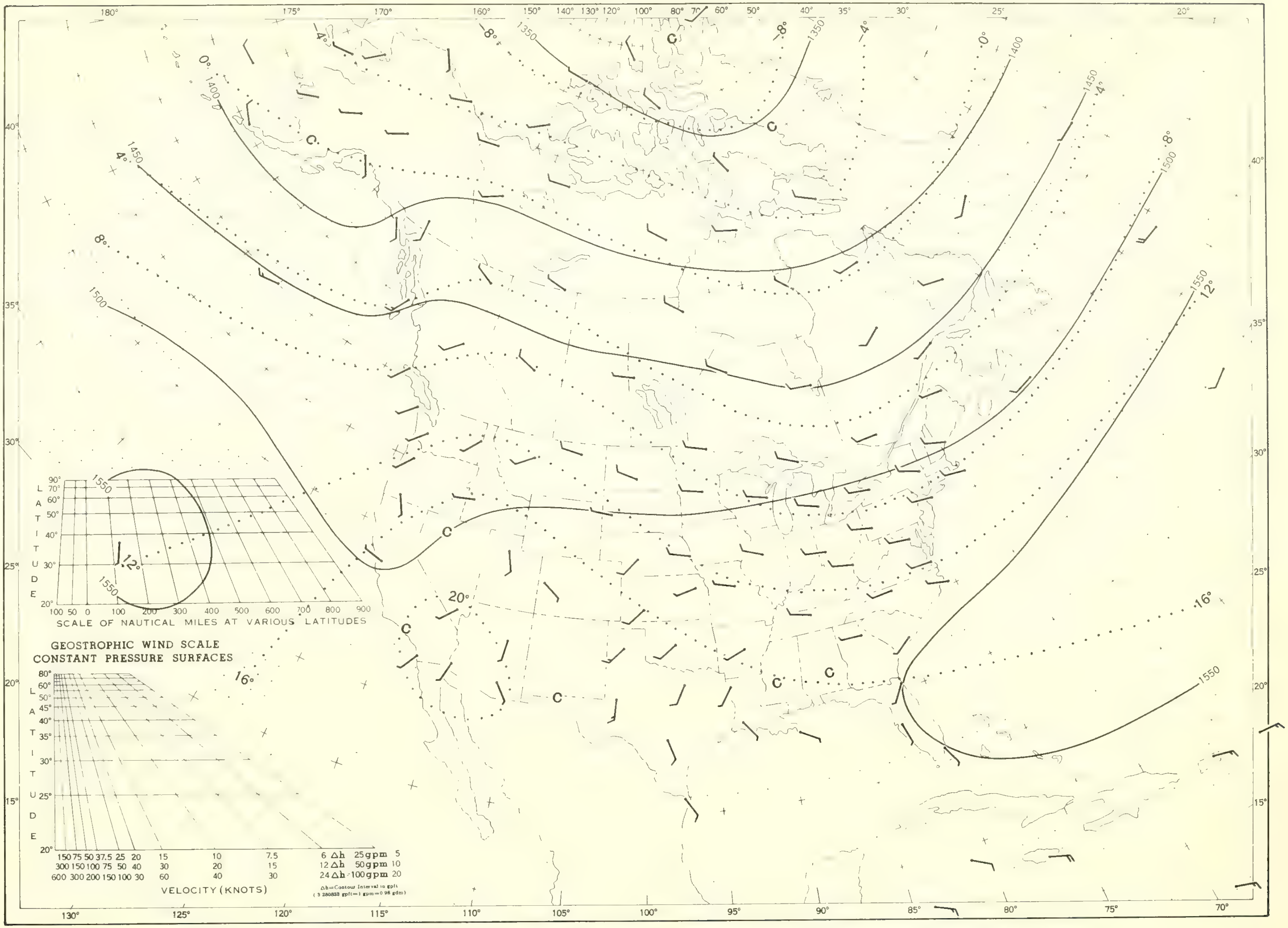
Circle indicates position of center at 7:00 a. m. E. S. T. See Chart VIII for explanation of symbols.

Chart X. Average Sea Level Pressure (mb.) and Surface Windroses, September 1962. Inset: Departure of Average Pressure (mb.) from Normal, September 1962.



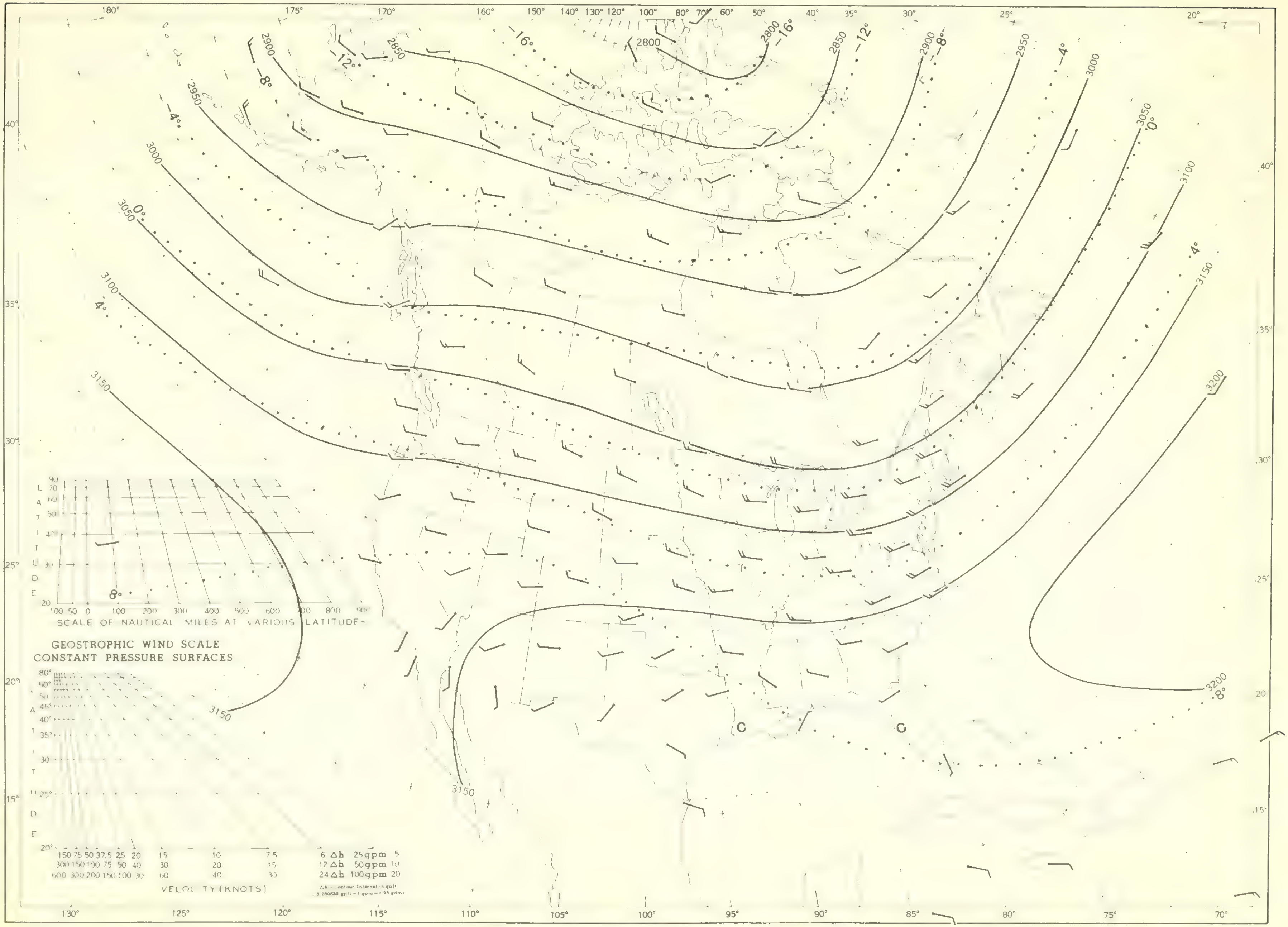
Average sea level pressures are obtained from the averages of the 7:00 a. m. and 7:00 p. m. E. S. T. readings. Windroses show percentage of time wind blew from 16 compass points or was calm during the month. Pressure normals are computed for stations having at least 10 years of record and for 10° intersections in a diamond grid based on readings from the Historical Weather Maps (1899-1939) for the 20 years of most complete data coverage prior to 1940.

Chart XI. 850-mb. Surface, 1200 GMT, September 1962. Average Height and Temperature, and Resultant Winds.



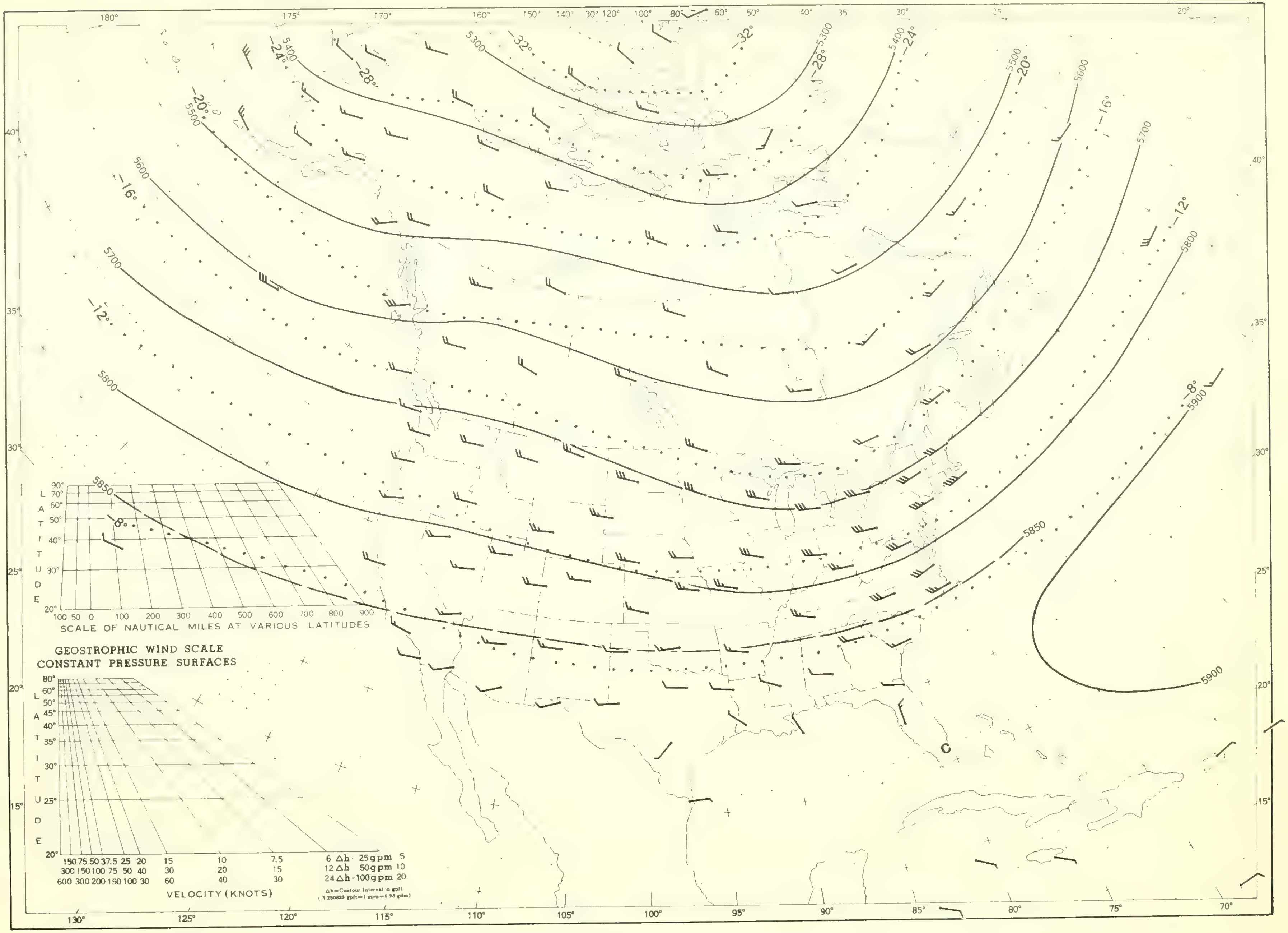
Height in geopotential meters (1 g.p.m. = 0.98 dynamic meters). Temperature in °C. Wind speed in knots; flag represents 50 knots, full feather 10 knots, and half feather 5 knots. All wind data are based on rawin observations.

Chart XII. 700-mb. Surface, 1200 GMT, September 1962. Average Height and Temperature, and Resultant Winds.



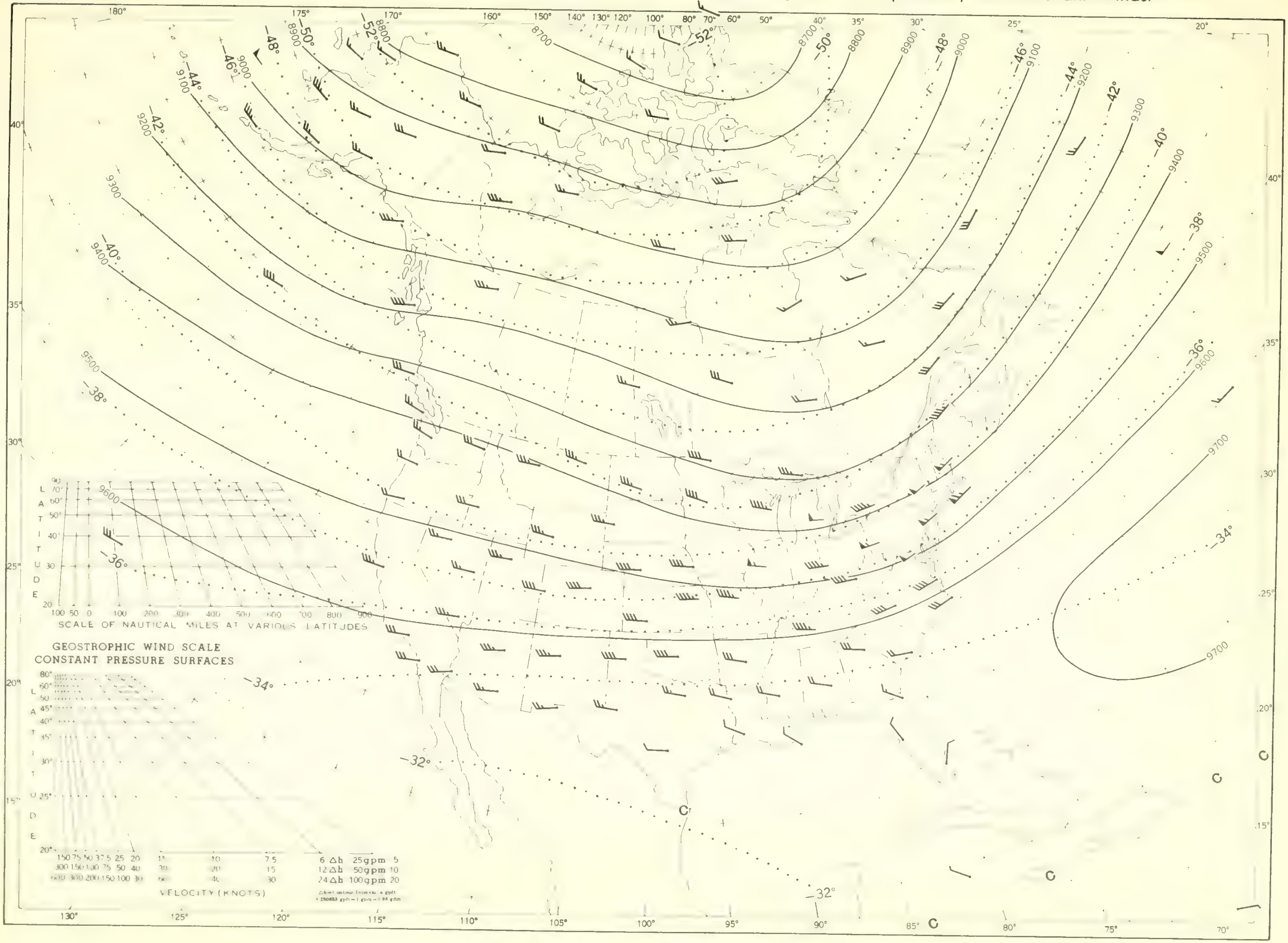
See Chart XI for explanation of map.

Chart XIII. 500-mb. Surface, 1200 GMT, September 1962. Average Height and Temperature, and Resultant Winds.



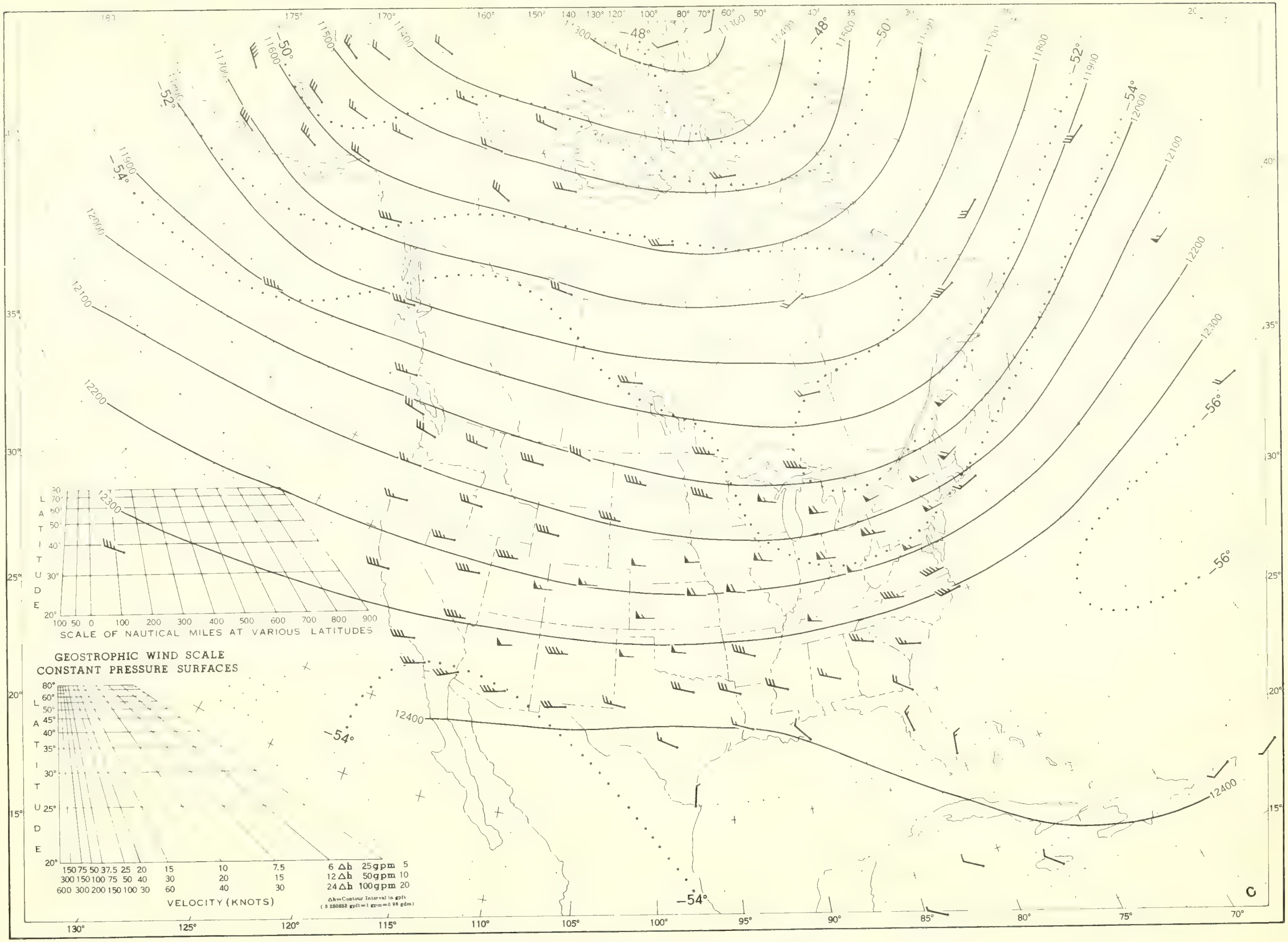
See Chart XI for explanation of map.

Chart XIV. 300-mb. Surface, 1200 GMT, September 1962. Average Height and Temperature, and Resultant Winds.



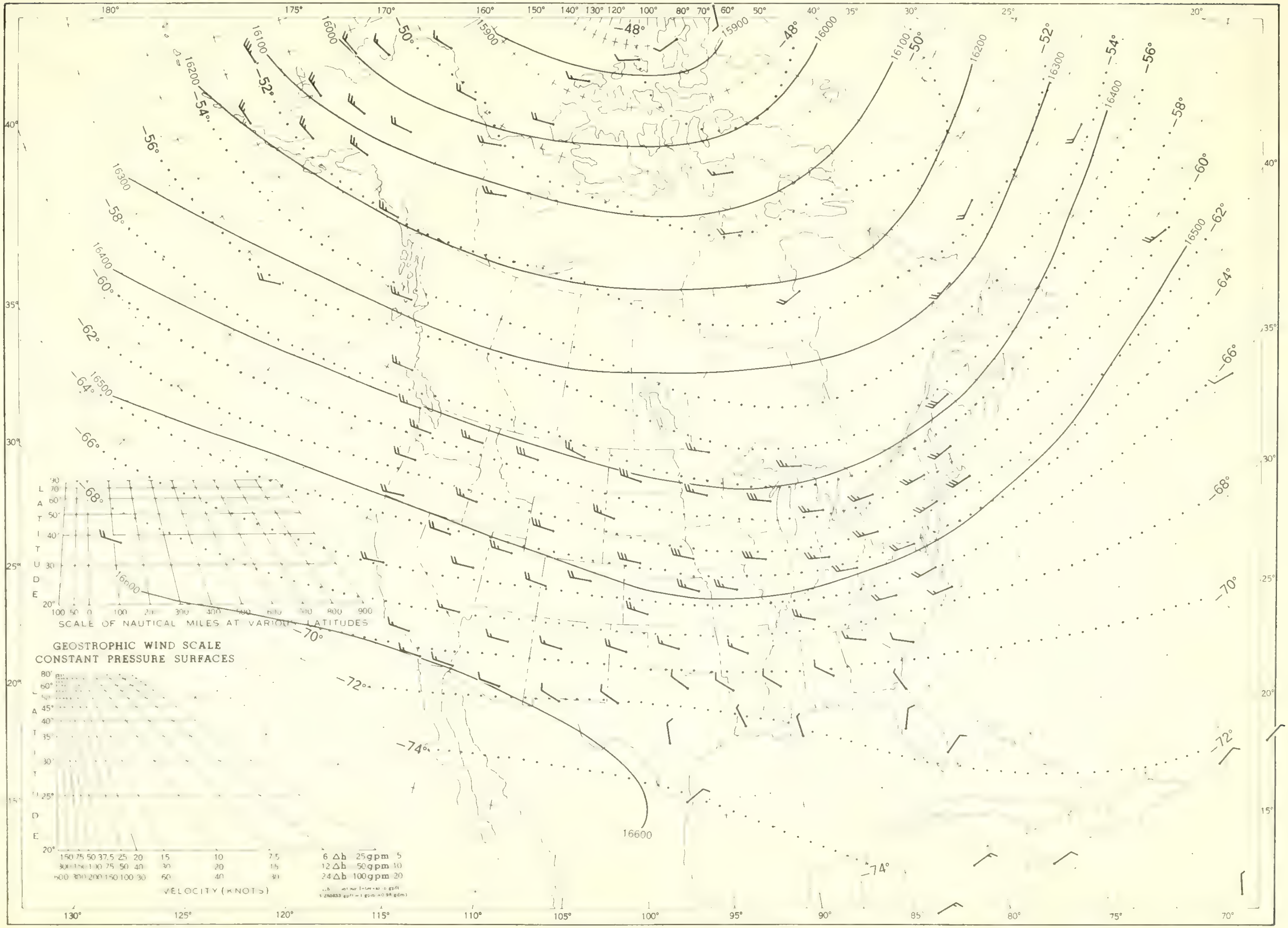
See Chart XI for explanation of map.

Chart XV. 200-mb. Surface, 1200 GMT, September 1962. Average Height and Temperature, and Resultant Winds.



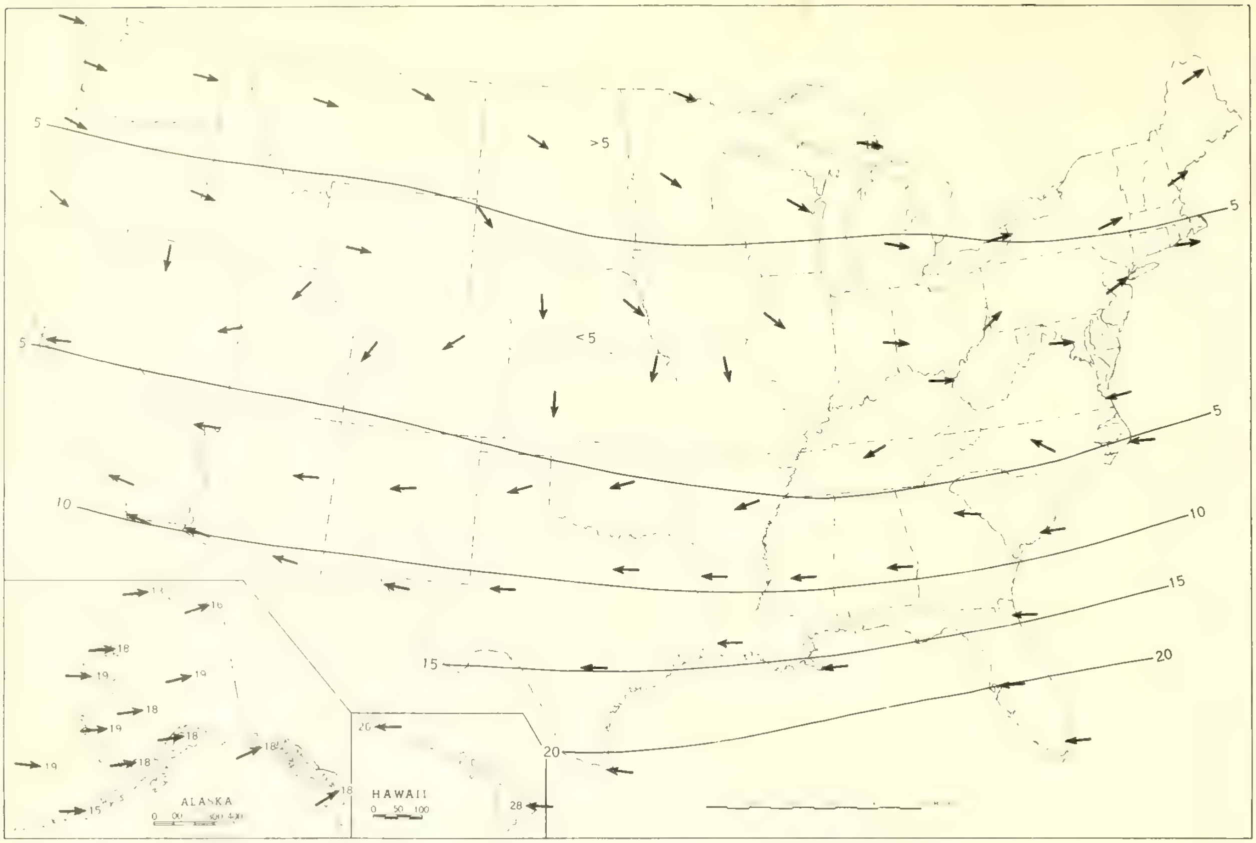
See Chart XI for explanation of map.

Chart XVI. 100-mb. Surface, 1200 GMT, September 1962. Average Height and Temperature, and Resultant Winds.

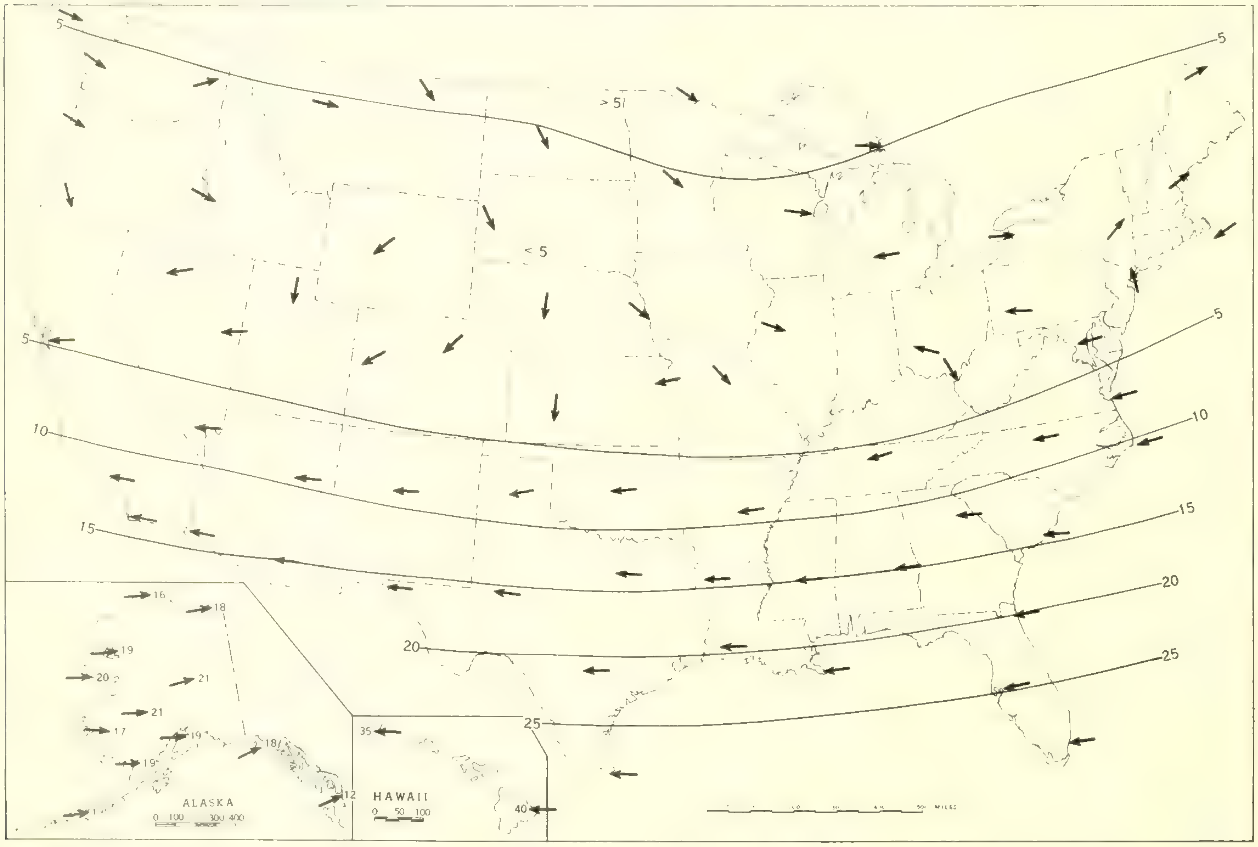


See Chart XI for explanation of map.

Chart XVII. A. 50-mb. Surface, 1200 GMT, September 1962. Resultant Winds.



B. 30-mb. Surface, 1200 GMT, September 1962. Resultant Winds.



Wind speed (isotachs) in knots. Arrows show resultant wind direction. All wind data are based on rawin observations.

USCOMM-WB-Asheville - 12/19/62 - 1775

U. S. DEPARTMENT OF COMMERCE
LUTHER H. HODGES, Secretary
WEATHER BUREAU
F. W. REICHELDERFER, Chief

CLIMATOLOGICAL DATA

NATIONAL SUMMARY

OCTOBER 1962
Volume 13 No. 10

CLEMSON COLLEGE
FEB 1

ASHEVILLE: 1963

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NOTE: Delayed data and corrections will be carried in the June and December issues of this publication.

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CLIMATOLOGICAL DATA

NATIONAL SUMMARY

Volume 13 No. 10

OCTOBER 1962

GENERAL SUMMARY OF WEATHER CONDITIONS

Unseasonably mild weather the first 3 weeks was followed by an early touch of winter in the eastern half of the Country, while the reverse was true in much of the Far West. Mild, sunny weather favored maturity and harvesting of fall crops. Temperatures for the month, however, averaged above normal everywhere, except New York, New England, and parts of the Far West. Precipitation was unusually heavy in northern California, much of Oregon, central Washington, and scattered local areas elsewhere, but was deficient in parts of the Great Plains, Florida, and North Carolina. Two outstanding storms occurred during the month, one on the Atlantic coast, the other on the Pacific coast. Record-breaking early snows occurred the last week in many northern areas. Heavy fog was unusually frequent and persistent in the Pacific Northwest the latter part of the month; Medford, Oreg., reported heavy fog on 16 days compared to the normal number of 4 days.

TEMPERATURE. --Although Boise, Idaho, recorded 90°, a late season high for the station, on the 2d, variations of average temperatures from normal for the first week generally were insignificant. The second week, however, was on the warm side nearly everywhere, particularly in the midcontinent area where 90° maxima extended northward into South Dakota and temperatures for the week averaged as much as 15° above normal. Dallas, Tex., had a minimum of 76° on the 12th, the highest minimum on record there for so late in the season. Average temperatures for the third week ranged from above normal in the East to slightly below normal in the Far West.

Successive surges of cold Polar air kept temperatures at well below normal levels east of the Continental Divide after the third week. Temperatures for this period averaged as much as 10° below normal in a large area extending from the middle Mississippi Valley to the Atlantic coast and in some parts of the Southeast. Lowest temperatures for so early in the season were recorded by many stations, ranging from 19° at Peoria, Ill., on the 26th to 29° at Augusta, Ga., on the 27th. Also on the 27th a number of stations had their lowest temperatures for October, among which were Cleveland, Ohio, 22.5° and Huntington, W. Va., 16°.

PRECIPITATION. --Extremely heavy rainfall occurred in central and southeastern New England during the coastal storm on the 4th to 7th. Storm totals ranged from 5 to over 12 inches. At Providence, R. I., 9.46 inches fell on the 5th, 6th, and 7th, the most for any storm period on record; a new record 24-hour amount of 6.63 inches was recorded on the 5th and 6th; and the monthly total of 11.89 inches was a new record amount there for October.

Most of the heavy precipitation in the Far West fell during the stormy period of the 10th through the 14th. A good example was Blue Canyon, Calif., where the entire monthly total of 22.32 inches fell during this period. Sacramento, Calif., measured 6.85 inches for the greatest amount there for October since the beginning of records in 1849.

Several stations in extreme southern California and southwestern Arizona had no measurable rain, and Phoenix, Ariz., reported that the period March through October was the driest such period there on record.

Precipitation continued deficient in extreme southern Texas. At Corpus Christi the accumulated total of 11.70 inches since the first of the year is less than 50 percent of normal. Drought conditions have prevailed over much of the Coastal Bend area during nearly all of the past 13 months.

Nearly all of Florida had less than 50 percent of normal precipitation, and large areas less than 25 percent. Miami measured only 1.50 inches, the least amount there on record for October. Apalachicola had only 0.53 inch and the accumulated total there for the year to date is 22.38 inches below normal. Jacksonville had 1.13 inches, the least since 1940. Lakeland reported 73.16 inches of rain for the past 24 months, a deficiency of 31.04 inches compared to normal, and the driest such period there on record.

SNOWFALL. --October generally is a month with little or no snowfall, but 1962 was an exception in many places as snowfall was widespread in middle and northern areas during the cold weather late in the month. At many places east of the Rockies these snowfalls were unusually early in the season.

Dubuque, Iowa, had 0.6 of an inch on the 24th, the heaviest so early in the season in 30 years; similar records included Portland, Maine, 3.6 inches on the 26th (also the greatest amount for October); and Grand Rapids, Mich., 2.4 inches on the 25th. Stations recording their greatest amount for October included Caribou, Maine, 11.0 inches; Worcester, Mass., 4.7 inches which fell on the 26th; Cleveland, Ohio, 8 inches; and Columbus, Ohio, 1.3 inches. At Paw Paw, Mich., 13.5 inches fell on the 25th, and Greenville, Maine, measured a 13-inch cover on the 27th.

DESTRUCTIVE STORMS. --Three storms affected the north Pacific coast on the 11th, 12th, and 13th. High winds and excessive rains were blamed for about 50 deaths and property losses estimated in the neighborhood of $250 million. Heaviest damage occurred in Oregon where winds were observed at well over 100 m.p.h., before power failures prevented further operation of the wind instruments.

Heavy rains from storms off the New England coast on the 4th to 7th caused flooding which was blamed for several million dollars damage. High winds along the Maine coast caused additional damage estimated at several million dollars.

Heavy snow in western North Dakota on the 15th, measuring 5.0 inches at Williston and up to 10.0 inches in surrounding areas, was accompanied by strong winds. Considerable damage occurred to transmission lines, and highway traffic was stalled in places.

CONDENSED CLIMATOLOGICAL SUMMARY

Section	Temperature						Precipitation			
	Monthly extremes						Monthly extremes			
	Station	Highest	Date	Station	Lowest	Date	Station	Greatest	Station	Least
		°F			°F			In.		In.
Alabama	2 Stations	95	10	Valley Head	20	26	Gulf Shores Post Office	5.94	Wetumpka	0.35
Arizona	Yuma WB Airport	106	2	Maverick	17	13	Blue	5.14	15 Stations	.00
Arkansas	2 Stations	92	7	2 Stations	27	31+	Devils Knob	11.72	Beedeville	1.10
California	Indio U.S. Date Garden	109	2	White Mountain #2	9	16	Strawberry Valley	28.91	18 Stations	.00
Colorado	Eversoll Ranch	94	10	Wagon Wheel Gap 3N	6	14	Vallecito Dam	3.71	2 Stations	.00
Connecticut	Hartford WB Airport	85	12	Coventry	16	25	Groton	7.70	Manchester	2.48
Delaware	Lewes 1SW	89	12	4 Stations	26	30+	Newark University Farm	1.76	Milford 3WNW	.53
Florida	Sarasota	99	14	2 Stations	31	27	Tavernier	12.58	Fort Drum 5NW	.34
Georgia	Thomaston 2S	95	7	Blairsville Exp Station	17	27	Swainsboro	8.01	Thomasville WB City	.44
Hawaii	2 Stations	92	31+	Haleakala Summit	26	20	Kahana 883	10.36	3 Stations	.00
Idaho	Boise WB Airport	90	2	Idaho Falls 42NW WB	12	25	Big Creek 1S	7.07	Mountain Home 1SE	.00
Illinois	Farmer City	94	11	Marengo	14	26	Benton	7.50	Aurora College	.79
Indiana	6 Stations	89	16+	Culver Exp Farm	14	26	La Porte	5.80	Martinsville 2SW	1.23
Iowa	2 Stations	90	11+	Delaware 3WSW	11	26	Augusta	7.11	Merrill 5W	.36
Kansas	Aetna 2S	96	11	4 Stations	21	25	Quenemo No. 2	3.84	Richfield 4N	.00
Kentucky	3 Stations	89	14+	Dewey Dam	10	27	Springfield	7.17	Jeremiah	.75
Louisiana	2 Stations	96	8	Jonesville 4N	32	26	Henderson 2W	7.08	Riverton Dam	.54
Maine	Sanford 2NNW	78	3	2 Stations	10	31+	Portland WB Airport	12.27	Eastport	1.83
Maryland	Baltimore WB City	90	12	Sines Deep Creek	14	27	Bittinger 2NW	4.67	Millington	.61
Massachusetts	Springfield Armory	83	12	Barre Falls Dam	18	30	Reading	12.85	Stockbridge	3.07
Michigan	Lapeer Press Farm	87	11	Three Rivers	26	13	Harbor Beach 3NW	5.45	Mott Island Isle/Royale	.75
Minnesota	2 Stations	88	14	Cotton 7E	3	26	Caledonia	3.74	Cook 18W	.11
Mississippi	Quitman 1N	99	3	Houston 2NE	24	26	Waynesboro 3WNW	6.64	Dancy	.59
Missouri	California	93	11	Berryman 6NW	20	24	Anderson	7.91	Vichy FAA Airport	1.11
Montana	Moorhead 5NE	86	9	Drummond FAA Airport	11	18	Bozeman 12NE	5.37	Monida	.07
Nebraska	Beaver City	96	11	Nenzel 20S	7	25	Table Rock 5N	6.43	Lynch	.27
Nevada	Mesquite	100	13	Charleston	5	26+	Mt. Rose Highway Sta	6.71	6 Stations	.00
New Hampshire	2 Stations	81	4+	Durham	17	30	Gilmanton	11.42	Lancaster	4.21
New Jersey	3 Stations	87	30+	3 Stations	20	30+	Greenwood Lake	6.76	Millville	.84
New Mexico	Skipworth Ranch	98	10	2 Stations	11	29+	Fort Wingate	3.51	4 Stations	.00
New York	2 Stations	86	12	Hinckley 2W	11	27	Binghamton WB Airport	7.15	Hammondsport 1S	1.21
North Carolina	do	92	8	Transou	11	27	Lake Toxaway 2SW	10.23	Red Springs	.17
North Dakota	Breien	87	14	Wishek	5	25	Kenne 2S	2.57	McLeod 3E	.13
Ohio	Toledo Blade	90	12	Tom Jenkins Dam	10	27	Wilmington	5.27	Atwood Dam	1.04
Oklahoma	Frederick	98	13	Kenton	27	29	Kiamichi Tower	11.12	Boise City 2E	.02
Oregon	Rome 2NW	88	2	4 Stations	12	16+	Illahe	15.51	Crescent Lake	1.24
Pennsylvania	Newport	93	13	Pleasant Mount 1W	16	26+	Susquehanna	7.89	Kegg	.80
Puerto Rico	Dorado 4W	96	5	Carite Camp Tunnel	58	2+	Santa Isabel 3NW	17.99	Puerto Real	2.40
Rhode Island	Providence WB Airport	80	12	2 Stations	22	30+	Providence WB Airport	11.89	Block Island WB Airport	7.27
South Carolina	Loris	97	14	Dillon 4SW	18	27	Summerville 2WNW	6.52	Parr	.23
South Dakota	2 Stations	91	15+	Deerfield 5NW	5	25	Spearfish	2.98	Raymond 3NE	.03
Tennessee	do	90	14+	Mountain City 2	10	27	Monteagle	6.30	Jackson Exp Station	.33
Texas	do	102	16	3 Stations	30	30+	Dekalb	12.94	7 Stations	.00
Utah	St. George PH	94	3	Hardware Ranch	0	23	Bryce Canyon NP Hdq	1.84	Grouse Creek Kimber R-4	.16
Vermont	2 Stations	78	3	2 Stations	19	30+	Damville	8.69	Bennington 2NNW	3.06
Virginia	Lincoln	91	12	Chilhowie 1S	9	27	Back Bay Wildlife Rfg	5.72	Hog Isl Ltl Machipongo	.16
Washington	Packwood Ranger Sta	85	2	Stockdill Ranch	20	6	Aberdeen 20NNE	11.96	Moses Lake	.93
West Virginia	2 Stations	92	15+	Buckeye	3	27	Pickens 1	9.64	Harpers Ferry	1.08
Wisconsin	Kenosha	89	15	2 Stations	4	26	Monroe 1W	3.97	Foxboro 6SSE	.75
Wyoming	2 Stations	88	10+	Bondurant 3NW	4	26	Pathfinder Dam	2.52	Emblem	.00

And also on an earlier date or dates.

NOTE: Dates in the above Condensed Climatological Summary apply to the period 24 hours prior to time of observation. In some cases the actual occurrence is on the calendar date preceding that shown. (See individual Climatological Data for times of observations).

CLIMATOLOGICAL DATA

ENGLISH UNITS

State and Station	Elevation (ground)	Pressure		Temperature											Average relative humidity	Precipitation							Wind					No. of days (sunrise to sunset)			Sky cover, tenths (sunrise to sunset)	Possible sunshine
												No. of days							No. of days		Snow, Sleet				Fastest mile							
		Station Ø	Sea level	Average maximum	Average minimum	Average	Departure from normal	Highest	Date	Lowest	Date	Max. 90 F. or above	Min. 32 F. or below	Average dew point		Total	Departure from normal	Greatest in 24 hours	.01 inch or more	With thunderstorms	Total	Maximum depth on ground	Average speed	Prevailing direction	Speed	Direction	Date	Clear, 0-3	Partly cloudy, 4-7	Cloudy, 8-10		
ALABAMA	Ft.	Mb.	Mb.	°F.	F.	°F.	F.	°F.		°F.				°F.	%	In.	In.	In.			In.	In.	M.p.h.		M.p.h.							%
BIRMINGHAM	610	992.8	1018.3	78	54	66.4	2.7	89	6	30	26	0	1	52	64	2.03	-0.92	1.83	3	0	0.0	0	6.6	ENE	25	N	31	16	6	9	4.1	74
HUNTSVILLE	605	994.8	1018.0	77	52	64.4	1.2	88	7+	29	26	0	2	52	68	3.13	0.41	1.95	5	1	0.0	0	7.0	SE	24*	NW	23+	12	12	7	4.4	
MOBILE	211	1014.6	1017.0	81	61	71.0	2.1	90	8	42	26	1	0	59	71	2.41	-0.62	1.51	4	5	0.0	0	5.5	ENE	28*	NNW	31	14	9	8	3.9	
MONTGOMERY	195	1009.5	1017.7	81	55	68.0	1.4	90	15+	32	27+	2	2	55	70	0.67	-1.61	0.24	6	2	0.0	0	6.2	NW	25	N	31+	15	8	8	3.8	73
ALASKA												8																				
ANCHORAGE	90	995.6	1000.7	44	32	37.8	2.8	55	2	22	30	0	17	32	82	1.56	-0.31	0.93	9	0	3.0	1	5.2	SSE	23*	N	23	2	6	23	8.0	37
ANNETTE	110	1005.6	1009.8	54	45	49.0	2.3	65	29	34	21	0	0	43	82	15.12	-1.76	2.72	27	0	0.0	0	10.2	SE	38*	SE	27	0	2	29	9.6	
BARROW	22	1010.9	1011.7	21	13	17.2	0.6	33	4	- 8	22	0	31	13	83	0.53	0.03	0.07	20	0	5.4	9	14.6	ENE	32*	ENE	11+	0	3	28	9.5	
BARTER ISLAND	39	1007.5	1009.5	26	16	20.5	3.3	32	5+	- 4	30	0	32	16	81	0.28	-0.56	0.14	6	0	2.8	5	14.2	E	38*	W	29+	2	2	27	8.8	
BETHEL	125	998.8	1000.1	36	25	30.5	- 0.9	48	6	14	28	0	30	27	86	0.85	-0.69	0.20	10	0	10.8	3	10.7	NE	24*	S	1	2	6	23	8.4	
COLD BAY	94	995.9	999.8	44	36	39.6	- 0.5	52	5	28	28	0	7	35	83	4.16	-0.43	0.89	26	0	4.3	2	16.3	WSW	43*	SSE	5	0	4	27	8.7	
CORDOVA	40	1000.0	1001.7	49	35	41.9	2.1	59	1	25	13	0	12	37	84	12.58	0.68	2.00	23	1	T	T	6.6	ESE	31*	ESE	28+	2	6	23	8.4	
FAIRBANKS	436	986.8	1004.1	38	24	30.8	4.6	53	2	8	21	0	31	25	81	0.28	-0.57	0.10	9	0	2.8	2	5.6	N	20*	NE	12+	7	4	20	7.2	
JUNEAU	17	1005.9	1006.8	50	37	43.4	1.8	57	12+	27	23	0	4	39	83	7.39	-0.94	1.64	22	0	0.0	0	9.1	ESE	35*	ESE	27	2	1	28	9.4	12
KING SALMON	43	997.3	999.6	42	29	35.2	- 0.5	50	2	18	29	0	23	31	84	1.69	-0.46	0.40	17	0	1.6	T	9.9	N	41*	E	23	2	3	26	8.7	
KOTZEBUE	10	1005.2	1005.9	29	18	23.7	- 1.0	43	5	- 3	31	0	30	19	81	0.38	-0.21	0.10	11	0	6.9	4	9.7	ENE	29*	N	10+	8	5	18	7.0	
MC GRATH	334	990.1	1003.2	34	20	27.0	0.2	47	4	0	29	0	28	23	83	0.60	-0.72	0.21	11	0	13.0	7	4.1	N	20*	NNW	11	3	5	23	8.3	
NOME	13	1002.6	1003.5	34	23	28.1	- 1.6	43	2	8	29	0	29	21	74	0.46	-1.25	0.31	7	0	1.1	1	13.2	N	31*	SSE	1	4	10	17	7.0	37
ST. PAUL ISLAND	22	999.1	1000.2	41	31	36.1	- 1.1	48	6+	18	22	0	18	33	85	2.41	-0.74	0.46	19	0	5.3	1	20.4	NW	55*	NW	23	0	4	27	9.2	
SHEMYA	122	1003.2	1006.8	45	38	41.3	1.6	51	3+	28	31	0	5	36	81	8.59	5.83	5.26	24	0	0.7	T	20.7	WSW	53*	SSE	3	0	11	20	8.0	
YAKUTAT	28	1002.5	1003.7	50	36	43.1	1.2	61	12	26	3	0	9	39	87	19.82	0.23	3.21	23	1	T	T	9.4	ENE	46*	ESE	27	6	2	23	7.9	
ARIZONA																																
FLAGSTAFF	6993	792.5	1018.2	64	31	47.5	0.0	73	2	26	28+	0	21	30	59	1.23	-0.29	0.86	7	4	0.0	0	6.5	NNE	21*	SSW	14	23	2	6	2.4	
PHOENIX	1109	973.5	1012.2	88	55	71.6	- 0.6	98	1	47	20	14	0	41	36	T	-0.46	T	0	0	0.0	0	3.8	E	20*	SW	16	25	6	0	1.5	93
PRESCOTT	5014	848.0	1015.6	74	42	57.8	0.2	82	3+	35	21	0	0	33	45	0.15	-0.58	0.15	1	1	0.0	0	8.9	SSW	33	S	4	24	4	3	1.8	88
TUCSON	2584	924.9	1012.3	84	57	70.6	0.6	92	2	45	20	4	0	40	38	0.22	-0.42	0.13	3	1	0.0	0	9.2	SSE	31	S	16	20	11	0	2.0	93
WINSLOW	4880	853.5	1017.4	74	42	57.6	- 0.3	87	4	35	30+	0	0	36	54	1.66	1.00	1.37	5	4	0.0	0	7.4	SW	35*	SSE	4	23	4	4	2.0	
YUMA	199	1006.7	1012.0	94	61	77.0	- 0.3	106	2	55	20+	24	0	44	36	0.05	-0.33	0.05	1	0	0.0	0	6.4	NNE	22	N	29+	28	3	0	1.0	97
ARKANSAS																																
FORT SMITH	449	999.7	1016.7	76	56	65.9	2.1	91	7	38	26+	2	0	57	78	4.90	1.45	1.50	8	8	0.0	0	6.6	NE	26	N	16+	9	9	13	5.9	46
LITTLE ROCK	257	1004.2	1017.3	77	56	66.3	3.2	90	11	40	31	1	0	56	75	3.54	0.66	1.11	11	6	0.0	0	6.6	SW	26	S	6	8	13	10	5.7	47
TEXARKANA	361		1015.9	77	59	68.3	2.2	91	7	41	31	1	0	60	81	4.57	1.59	1.75	7	6	0.0	0	8.1	S								
CALIFORNIA																																
BAKERSFIELD	494	998.7	1016.5	78	53	65.7	- 1.1	92	1	46	28	1	0	48	57	0.23	-0.09	0.23	1	0	0.0	0	6.2	NW	23*	NNW	14	18	7	6	3.3	
BISHOP	4108	874.7		79	40	59.7	2.8	89	1	35	27+	0	0			T	-0.43	T	0	0	0.0	0						24	3	4	2.5	
BLUE CANYON	5280	840.3		62	47	54.5	0.7	78	1	31	14	0	2			22.32	18.91	7.93	5	0	2.0	T	7.5	ENE	47	SSW	11	18	7	6	3.5	
BURBANK	699	989.0	1014.9	77	54	65.1	- 1.2	92	30	46	27	3	0	51	69	0.03	-0.46	0.02	2	0	0.0	0	5.5	ESE	16*	ESE	28	14	12	5	3.9	
EUREKA U	43	1015.0		60	49	54.6	0.2	70	2	43	16	0	0			6.49	3.30	2.90	10	0	0.0	0	6.2	S$	56	SW	12	4	6	21	7.6	41
FRESNO	326	1003.5	1015.5	77	51	64.0	- 0.3	93	1	44	15	1	0	49	65	0.73	0.30	0.73	2	0	0.0	0	5.8	NW	24	NW	24	22	4	5	2.7	87
LONG BEACH	34	1013.7	1015.4	74	56	64.9	- 1.1	96	30	49	21	2	0	56	80	0.02	-0.15	0.02	1	0	0.0	0	5.9	WNW	20*	WNW	21+	5	22	4	5.1	
LOS ANGELES	97	1011.7	1015.6	71	58	64.6	0.6	92	30	53	17+	1	0	57	80	0.07	-0.32	0.04	2	0	0.0	0	6.3	W	22*	W	4	7	17	7	5.2	
LOS ANGELES U	312			74	57	65.7	- 1.7	93	30	52	28+	2	0			0.12	-0.29	0.10	2	0	0.0	0	5.3	W$	18	E	5	14	12	5	4.1	70
MT SHASTA R	3544	893.6		64	39	51.3	- 0.6	82	1	31	7	0	3			9.71	7.27	3.59	9		0.0	0						15	7	9	4.2	
OAKLAND	3	1016.0	1016.4	68	53	60.7	- 0.4	84	1	48	29	0	0	51	75	8.56	7.78	5.45	5	0	0.0	0	8.9	WNW	35*	NNE	12	14	7	10	4.9	
POINT ARGUELLO	367	1002.2		68	50	58.8	0.4	78	30	43	30+	0	0			0.46	0.04	0.44	4	0	0.0	0	7.7		28*	NW	14	13	6	12	5.2	
RED BLUFF	341	1002.2	1015.2	75	53	63.9	- 1.7	93	1	45	7	1	0	47	62	3.56	2.19	2.57	7	0	0.0	0	10.8	SSE	68	SE	12	13	5	13	4.9	66
SACRAMENTO	17	1015.0	1016.0	73	52	62.3	- 2.7	93	1	46	18	1	0	53	78	7.51	6.74	5.54	5	0	0.0	0	5.6	SW	42	SW	12	14	8	9	4.7	64
SACRAMENTO U	23			72	53	62.5	- 2.2	92	1	48	28+	1	0			6.85	6.05	5.07	4		0.0	0										
SANDBERG R	4517	863.7		69	50	59.7	1.0	83	1	36	15	0	0			0.10	-0.39	0.10	1	0	0.0	0	11.3	NNW	38*	NNW	7	24	3	4	1.9	
SAN DIEGO	13	1011.5	1014.8	72	57	64.6	- 1.0	89	30	50	29	0	0	55	75	0.01	-0.48	0.01	1	0	0.0	0	6.8	NW	18	NW	20	13	14	4	4.3	67
SAN FRANCISCO	8	1016.2	1017.0	67	52	59.5	[illegible]	80	1	47	19+	0	0	52	79	7.30	6.56	3.74	5	0	0.0	0	11.1	WNW	50	S	13+	11	11	9	4.9	
SAN FRANCISCO I	52			67	55	60.8	- 0.6	79	1	52	19+	0	0			5.51	4.62	3.11	7	0	0.0	0	8.2	W$	38	SE	12					63
SANTA MARIA	238	1007.6	1016.3	72	48	59.8	- 0.6	88	31	40	27	0	0	51	80	0.50	-0.10	0.50	2	0	0.0	0	5.8	WNW	29	NW	6+	20	7	4	3.1	
COLORADO																																
ALAMOSA	7536	774.1		66	25	45.7	1.3	76	10	15	29	0	24			0.32	-0.28	0.18	5	0	0.2	T						21	7	3	2.2	

See footnotes at end of table

CLIMATOLOGICAL DATA

ENGLISH UNITS

OCTOBER 1962

State and Station	Elevation (ground)	Pressure		Temperature											Average relative humidity	Precipitation							Wind					No. of days (sunrise to sunset)			Sky cover, tenths (sunrise to sunset)	Possible sunshine
												No. of days							No. of days		Snow, Sleet				Fastest mile							
		Station Ø	Sea level	Average maximum	Average minimum	Average	Departure from normal	Highest	Date	Lowest	Date	Max. 90°F. or above	Min. 32°F. or below	Average dew point		Total	Departure from normal	Greatest in 24 hours	.01 inch or more	With thunderstorms	Total	Maximum depth on ground	Average speed	Prevailing direction	Speed	Direction	Date	Clear, 0-3	Partly cloudy, 4-7	Cloudy, 8-10		
COLORADO	Ft.	Mb.	Mb.	°F.	°F.	°F.	°F.	°F.		°F.				F.	%	In.	In.	In.			In.	In.	M.p.h.		M.p.h.							%
COLORADO SPRINGS	6173	814.0	1018.4	68	40	53.9	3.6	84	14+	29	25	0	1	27	44	0.97	0.28	0.78	3	2	0.0	0	9.8	NE	29*	N	24+	17	10	4	3.3	
DENVER	5283	839.4	1016.6	71	36	53.4	1.0	87	10	26	25	0	8	27	43	0.05	-0.96	0.03	2	0	0.0	0	9.0	S	31	W	6	14	13	4	3.6	83
GRAND JUNCTION	4849	861.5	1016.9	69	44	56.6	1.6	82	4	36	26	0	0	30	41	0.46	-0.28	0.29	4	1	0.0	0	5.7	ESE	33	SW	4	18	8	5	2.9	84
PUEBLO	4639	857.9	1016.2	74	39	56.7	1.9	88	13+	30	26	0	3	31	44	0.48	-0.51	0.45	3	1	0.0	0	8.6	ESE	47	NE	31	22	6	3	2.5	89
CONNECTICUT																																
BRIDGEPORT	7	1015.1	1016.1	62	46	53.9	- 1.5	76	12	30	30	0	3	45	73	3.08	-0.30	1.68	9	0	T	T	13.0	NNW	36*	ENE	5	7	9	15	6.4	
HARTFORD	169	1009.1	1015.1	61	40	50.9	- 1.4	85	12	25	25	0	4	42	76	4.24	1.06	2.12	10	1	T	T	7.3	N	24	NW	29+	5	8	18	7.2	48
NEW HAVEN	6	1014.8		62	45	53.3	- 0.7	75	12	27	30	0	3			3.58	0.13	2.00	12	3	1.3	1	8.1		31	NW	7	9	6	16	6.5	54
DELAWARE																																
WILMINGTON	78	1012.8	1016.1	67	46	56.7	0.1	85	12	30	30+	0	5	46	72	1.51	-1.40	0.64	8	1	0.3	T	8.8	WNW	29*	WNW	7	8	11	12	5.8	
DIST.OF COLUMBIA																		1														
WASHINGTON U	72			69	50	59.3	0.9	87	12	32	27+	0	2			1.87	-1.10	1.63	6													
WASH NATL AP	14	1011.7	1016.4	70	51	60.3	1.3	89	12	30	27	0	1	47	64	1.93	-1.14	1.68	7	1	0.0	0	7.2	S	26	W	26+	13	9	9	4.7	68
FLORIDA																																
APALACHICOLA U	13	1014.7		80	64	71.9	0.7	88	9	46	26	0	0			0.53	-1.91	0.25	4	1	0.0	0	6.0		22	N	24	17	11	3	3.1	87
DAYTONA BEACH	31	1014.8	1016.8	82	64	73.0	- 0.4	90	9	48	27	1	0	63	73	3.57	-2.04	1.08	7	4	0.0	0	8.4	NW	30*	NNE	17	11	13	7	4.7	
FORT MYERS	13	1014.7		87	68	77.6	1.5	92	3+	55	27	11	0		76	5.44	1.35	2.55	8	3	0.0	0	9.7		38*	NE	3	19	9	3	3.5	
JACKSONVILLE	24	1016.0	1017.4	83	61	71.8	0.8	92	8+	42	27+	5	0	60	70	1.13	-4.03	0.49	7	2	0.0	0	6.9	NNW	40	W	8	14	12	5	3.8	75
KEY WEST	5	1013.9	1014.9	86	76	80.6	1.6	93	5	67	31	5	0	70	71	3.66	-2.16	2.45	10	5	0.0	0	11.3	ENE	29	NE	27	9	16	6	5.4	62
LAKELAND U	214			84	66	74.8	0.3	93	5+	52	27	7	0			1.30	-1.63	0.54	4	4	0.0	0	7.0					20	7	4	3.5	76
MIAMI BEACH	9			85	75	79.8	1.4	93	9	66	25	2	0			2.58	-4.13	1.75	9	0	0.0	0	12.5		28	NE	28	11	15	5	4.8	67
MIAMI	7	1013.7	1014.9	85	70	77.5	- 0.3	90	6	62	27+	1	0	67	72	1.50	-6.71	0.35	9	7	0.0	0	8.8	NE	27*	NE	28	7	17	7	5.5	
ORLANDO	106	1011.7	1016.3	85	65	75.0	1.0	95	2	52	27	8	0	63	71	1.90	-2.06	0.82	6	3	0.0	0	8.1	N	21*	SSE	31	16	10	5	3.8	
PENSACOLA U	13			80	64	71.6	1.3	88	8	45	26+	0	0			2.93	-0.58	1.96	8	1	0.0	0	8.5	N	26	SW	1					78
TALLAHASSEE	58	1014.7	1017.5	83	56	69.4	- 0.2	90	8+	33	27	2	0	58	72	0.45	-1.98	0.33	3	3	0.0	0	8.1	N	21*	N	31+	17	8	6	3.7	
TAMPA	19	1014.8	1016.5	85	65	74.8	0.1	91	15+	51	27	8	0	64	73	1.28	-1.50	0.51	4	2	0.0	0	10.8	NE	23*	NNW	18	18	8	5	3.6	80
WEST PALM BEACH	15	1014.3	1015.4	86	70	78.2	0.0	92	9	62	25+	6	0	67	71	2.16	-5.80	1.12	10	4	0.0	0	10.1	ENE	27*	N	17	6	17	8	5.7	
GEORGIA																																
ATHENS	803	989.0	1018.1	76	52	64.1	1.1	86	13	28	27	0	3	53	72	1.38	-1.48	0.81	5	1	0.0	0	6.3	NW	25*	WNW	25	15	10	6	4.1	
ATLANTA	1005	976.0	1018.0	74	52	62.7	0.0	83	7	30	26	0	3	49	64	1.53	-0.91	0.77	6	3	0.0	0	6.2	WNW	22*	WSW	7	19	5	7	3.6	82
AUGUSTA	143	1010.3	1017.1	79	52	65.2	0.0	88	7	29	27	0	4	55	74	2.58	0.57	2.09	5	2	0.0	0	5.2	NW	20*	NW	23	14	9	8	4.3	
COLUMBUS	385	1003.4		80	53	66.6	1.2	89	10+	31	27+	0	2			1.44	-0.33	1.20	4	2	0.0	0	5.9	NW	23	NW	31	20	3	8	3.8	
MACON	356	1003.7	1017.4	80	54	67.2	1.0	92	8	31	27	2	1	54	68	1.75	-0.26	0.91	7	2	0.0	0	4.4	NW	19	W	25	16	7	8	3.9	75
ROME	637	995.3		77	47	61.9	0.7	87	7+	24	27+	0	5			2.26	-0.67	1.63	6	4	0.0	0						16	7	8	3.9	
SAVANNAH	48	1014.9	1017.6	80	57	68.3	1.1	90	7	32	27	1	1	57	72	0.92	-1.66	0.57	5	1	0.0	0	7.6	NW	25	N	18	14	9	8	4.0	75
THOMASVILLE U	283			82	59	70.5	0.8	90	6+	37	26	2	0			0.44	-1.83	0.32	3	2	0.0	0						19	4	8	3.6	
HAWAII																																
HILO	31	1014.2	1016.3	83	66	74.5	- 0.6	90	18	62	28+	1	0	65	76	2.40	-8.40	0.62	16	0	0.0	0	6.9	SW	26*	E	9	4	18	9	6.1	62
HONOLULU	7	1015.3	1015.7	85	70	77.2	- 1.0	87	13+	64	26+	0	0	66	69	2.21	-1.82	1.44	12	1	0.0	0	10.5	NE	25	NE	10	9	11	11	6.0	65
LIHUE	115	1010.7	1016.4	83	68	75.7	- 1.2	87	30	62	26	0	0	66	74	0.70	-1.14	0.27	7	1	0.0	0	10.3	ENE	30	NE	6	9	11	11	5.5	58
IDAHO																																
BOISE	2838	921.6	1018.2	65	41	53.1	0.5	90	2	29	16	1	2	37	61	1.22	0.38	0.57	8	0	0.0	0	7.6	SE	26	NW	12+	14	7	10	4.6	72
IDAHO FALLS 42NW R	4790			64	28	46.1	2.0	76	2	12	25	0	22			0.10	-0.31	0.10	1													
IDAHO FALLS 46W R	4933	849.9		65	31	48.0	3.1	75	2	19	26+	0	19			0.29	-0.37	0.17	3	0	0.0	0	6.5	SW	30	SW	8					
LEWISTON	1413	999.9		61	42	51.5	- 0.5	82	2	35	17+	0	0			1.62	0.41	0.66	7	0	0.0	0						9	4	18	6.9	
POCATELLO	4444	865.5	1019.1	66	37	51.6	2.5	79	2	25	25+	0	9	31	52	0.42	-0.47	0.32	2	0	0.0	0	9.6	SSW	45	S	14	16	4	11	4.7	72
ILLINOIS																																
CAIRO U	314	1003.9		72	56	63.8	1.9	86	12	36	24	0	0			4.36	1.48	2.09	10	6	0.0	0	7.6	S$	26	SW	28	9	11	11	5.6	57
CHICAGO O HARE	658	990.3	1015.1	67	45	55.8		88	11	19	26	0	4	45	70	0.89		0.52	9	1	T	T	10.1	SSW	23*	NNE	28	7	15	9	5.6	
CHICAGO MIDWAY	610	992.7	1015.7	66	49	57.3	1.9	86	15+	23	26	0	3	45	67	1.38	-1.40	0.68	10	2	0.3	T	10.8	SW	29	S	15	7	14	10	5.7	53
MOLINE	582	993.3	1015.7	66	45	55.2	0.9	88	11	19	26	0	6	48	77	4.15	1.69	1.51	11	6	0.2	T	9.5	SSW	28	NW	22	9	11	11	5.9	51
PEORIA	652	994.0	1016.5	65	45	54.9	- 0.4	86	11	19	26	0	6	47	78	3.56	1.03	1.64	6	3	T	T	10.4	S	32	NW	22	9	14	8	5.3	61

See footnotes at end of table

CLIMATOLOGICAL DATA

ENGLISH UNITS

State and Station	Elevation (ground)	Pressure		Temperature											Average relative humidity	Precipitation							Wind					No. of days (sunrise to sunset)			Sky cover, tenths (sunrise to sunset)	Possible sunshine
		Station Ø	Sea level	Average maximum	Average minimum	Average	Departure from normal	Highest	Date	Lowest	Date	No. of days: Max. 90 F. or above	No. of days: Min. 32 F. or below	Average dew point		Total	Departure from normal	Greatest in 24 hours	No. of days: .01 inch or more	No. of days: With thunderstorms	Snow, Sleet: Total	Snow, Sleet: Maximum depth on ground	Average speed	Prevailing direction	Fastest mile: Speed	Fastest mile: Direction	Fastest mile: Date	Clear, 0-3	Partly cloudy, 4-7	Cloudy, 8-10		
ILLINOIS	Ft.	Mb.	Mb.	F.	F.	°F.	F.	F.		F.				F.	%	In.	In.	In.			In.	In.	M.p.h.		M.p.h.							%
ROCKFORD	728	988.0	1015.4	65	45	54.6	2.1	85	10	18	26	0	6	45	73	0.95	-1.75	0.29	9	2	0.1	T	11.2	SSW	27*	SW	10	10	12	9	5.4	
SPRINGFIELD	588	992.4	1015.6	69	47	58.4	1.7	90	11	22	26	1	4	48	71	5.68	2.77	3.09	8	3	T	T	10.1	SSW	45	W	12	11	11	9	5.2	60
INDIANA																																
EVANSVILLE	381	1001.1	1017.0	70	48	59.2	0.6	86	12+	23	26	0	4	50	74	2.75	0.18	1.02	12	3	0.0	0	6.7	NW	31	SW	15	10	11	10	5.2	67
FORT WAYNE	791	984.9	1016.2	66	45	55.4	1.9	83	15+	24	27+	0	4	46	72	2.22	-0.64	0.58	11	3	0.6	T	10.0	W	39	SW	7	4	10	17	6.7	50
INDIANAPOLIS	793	986.3	1016.5	67	47	56.7	1.3	85	12	20	26	0	4	48	76	2.83	0.21	0.72	9	3	1.2	T	7.9	SW	75*	SW	7	9	12	10	5.7	74
SOUTH BEND	768	987.0	1015.2	63	46	54.4	1.0	84	15	26	26	0	5	47	78	4.39	1.22	1.20	14	4	8.6	4	10.1	SSW	29*	NW	25	5	8	18	7.2	
IOWA																																
BURLINGTON	694	990.4	1016.1	66	47	56.6	1.2	88	11	22	26	0	5	48	76	5.46	2.76	2.56	8	4	T	T	10.0	SSW	31	NW	23	10	11	10	5.5	64
DES MOINES	948	984.6	1016.1	66	48	57.2	2.5	88	10	29	26+	0	4	47	71	3.22	1.16	1.18	9	3	1.4	T	7.7	SSE	25	NW	22	9	10	12	5.6	57
DUBUQUE	1065	990.0		62	43	52.9	2.2	84	10	16	26	0	7			2.95	0.21	1.08	11	5	0.6	1			27*	SW	10	8	10	13	6.1	
SIOUX CITY	1095	974.5	1016.0	67	44	55.0	2.0	87	11+	24	25	0	6	45	75	1.08	-0.34	0.67	7	2	1.5	1	8.2	NNW	34	NW	15	10	9	12	5.4	58
WATERLOO	868	983.6	1015.7	64	43	53.1	0.9	85	10	20	26	0	7	46	78	3.03	0.91	0.94	10	3	0.3	T	9.3	NW	32*	NNW	30	9	8	14	6.0	
KANSAS																																
CONCORDIA	1470	965.6	1015.5	70	48	59.0	1.0	85	14+	25	25	0	3	47	70	0.82	-0.86	0.61	5	1	0.0	0	11.3	S	31	NW	24	16	10	5	4.3	68
DODGE CITY	2594	928.0	1016.0	71	47	59.3	1.0	88	10	32	29	0	1	44	64	0.41	-1.01	0.21	4	1	0.0	0	11.1	SSW	40	N	15	15	9	7	3.8	74
GOODLAND	3645	889.4	1016.6	72	38	54.9	1.8	90	13	28	25+	1	6	36	59	0.67	-0.09	0.62	2	1	0.0	0	11.0	NNW	31*	NNW	31	19	9	3	2.9	
TOPEKA	877	980.1	1015.7	71	49	60.0	1.8	86	11	28	25	0	3	51	76	1.36	-0.98	1.20	5	0	T	T	10.9	S	42	NW	24	12	7	12	4.8	59
WICHITA	1321	966.7	1015.4	73	52	62.3	2.4	89	13	31	25	0	1	51	71	1.32	-1.08	0.47	5	4	0.0	0	11.4	S	33	S	15	16	6	9	4.2	65
KENTUCKY																																
COVINGTON	869	984.4	1016.5	68	44	56.2	- 0.9	85	15	16	27	0	6	44	67	2.87	0.61	1.14	10	4	1.7	T	6.5	SSW	23*	WNW	25+	8	10	13	5.9	
LEXINGTON	979	981.5	1017.4	69	49	58.8	0.7	83	16+	23	26	0	4	49	73	4.46	2.18	3.21	11	2	T	T	7.1	SW	22*	NW	25	10	13	8	4.9	
LOUISVILLE	474	999.1	1016.9	70	49	59.3	1.9	84	16+	25	26	0	5	50	74	4.70	2.45	2.78	11	5	T	T	6.9	SE	26	NW	25	11	10	10	5.4	53
LOUISIANA																																
ALEXANDRIA	92	1013.0	1017.7	81	55	68.4		92	7	35	26	6	0	59	79	1.24		0.75	6	5	0.0	0	4.3	SSW				16	7	8	4.5	
BATON ROUGE	64	1014.3	1016.1	83	61	72.1	3.5	92	8+	43	26	6	0	62	75	5.23	2.78	3.40	7	4	0.0	0	6.0	ESE				13	13	5	4.1	
BURRWOOD R	5		1017.2											67	75			2.45	8				11.4	SE								
LAKE CHARLES	14	1015.9	1017.3	82	62	72.1	1.6	92	8	44	26	2	0	64	81	2.70	-0.36	1.15	8	6	0.0	0	9.6	NNE	24	SSW	20	13	13	5	4.4	
NEW ORLEANS	3	1014.9	1017.2	82	61	71.6	1.7	92	7	43	25	2	0	62	75	3.29	0.45	1.13	6	4	0.0	0	6.5	ENE	22*	ENE	24	16	8	7	3.9	
NEW ORLEANS AUDUBON	6	1010.4		83	65	73.8		90	9+	52	26+	2	0			1.77		0.60	9	4	0.0	0	3.8		14	NE	23	14	11	6	4.3	67
SHREVEPORT	252	1011.6	1017.7	81	60	70.7	3.4	92	10+	40	26	7	0	59	70	1.26	-1.55	0.31	6	5	0.0	0	8.9	S				11	11	9	5.1	64
MAINE																																
CARIBOU	624	989.9	1013.4	50	35	42.3	- 0.7	75	3	15	30	0	12	36	80	3.33	-0.03	0.69	14	1	11.0	5	10.9	W	48*	W	13	2	7	22	8.1	
PORTLAND	61	1010.4	1014.5	58	37	47.6	- 1.0	74	3	19	30	0	8	40	76	12.27	9.07	7.71	12	0	3.6	1	9.8	W	34	E	6	6	9	16	7.0	48
MARYLAND																																
BALTIMORE	146	1011.5	1016.3	70	46	57.7	0.7	88	12	28	25	0	3	46	68	2.96	-0.22	2.74	5	0	0.0	0	8.5	WNW	31	NW	26	11	13	7	4.7	65
BALTIMORE U	14			70	53	61.5	1.5	90	12	33	26	1	0			2.76	-0.49	2.39	8													
FREDERICK	294			69	43	55.4	0.3	89	12	25	25	0	6			1.94	-1.19	0.95	6		0.0	0										
MASSACHUSETTS																																
BLUE HILL OBS R	629	990.1	1013.6	60	43	51.3	- 1.4	77	3	27	27	0	5		75	10.84	7.09	6.01	11		3.0	3	14.0	NW	45	SSW	28					55
BOSTON	15	1009.5	1014.3	61	47	54.1	- 0.9	79	12+	31	30	0	1	41	66	8.68	5.54	4.26	13	1	T	T	14.3	WNW	34	S	28+	6	9	16	6.9	59
NANTUCKET	43	1014.0	1014.6	60	47	53.6	- 0.2	69	4	31	30	0	1	46	77	7.45	3.75	2.99	11	4	T	T	13.0	WNW	42	SW	26	7	8	16	6.5	60
PITTSFIELD	1170			58	37	47.3	- 0.8	81	12	25	30+	0	8			3.41	0.16	0.82	13		0.5	T										
WORCESTER	986	977.8	1014.6	58	41	49.2	- 1.3	77	12	24	27	0	6	40	73	8.56	5.09	3.52	12	2	4.7	5	8.2	W	23*	N	7	7	8	16	6.7	
MICHIGAN																																
ALPENA	689	988.8		58	37	47.3	- 0.5	80	15	24	29+	0	13			1.11	-1.31	0.23	13	1	1.1	1	6.7	W$	37	W	16	3	10	18	7.3	46
DETROIT	619	988.4	1015.1	63	46	54.6	0.8	83	11	26	26	0	4	46	74	1.76	-0.87	0.46	9	1	T	T	9.8	WNW	34	NW	16	4	12	15	6.4	48
DETROIT M WAYNE CO	633	991.1	1015.3	65	43	53.7	0.7	86	11	22	27	0	6	46	77	2.30	-0.27	0.90	9	0	T	T	8.1	SW				7	9	15	5.5	
DETROIT WILLOW RUN	711	986.7	1015.2	64	45	54.4	0.5	85	11	25	27	0	5	46	76	2.27	-0.26	0.92	8	0	T	T	11.3	SSW	30*	WSW	28	6	9	16	6.5	
ESCANABA J	594	991.9		55	42	48.5	0.9	66	2	25	26+	0	6			1.30	-0.81	0.65	14	1	T	T	4.5		39	NW	25	6	7	18	7.3	33
FLINT	766	987.7	1015.6	62	42	51.7	0.7	82	11	24	27+	0	5	45	79	2.91	0.54	0.71	8	1	0.8	T	8.7	SW	21*	SW	16	5	9	17	7.0	

See footnotes at end of table

CLIMATOLOGICAL DATA

ENGLISH UNITS

State and Station	Elevation (ground)	Pressure		Temperature								No. of days				Precipitation			No. of days		Snow, Sleet		Wind					No. of days (sunrise to sunset)				
		Station Ø	Sea level	Average maximum	Average minimum	Average	Departure from normal	Highest	Date	Lowest	Date	Max. 90° F. or above	Min. 32° F. or below	Average dew point	Average relative humidity	Total	Departure from normal	Greatest in 24 hours	.01 inch or more	With thunderstorms	Total	Maximum depth on ground	Average speed	Prevailing direction	Fastest mile: Speed	Fastest mile: Direction	Fastest mile: Date	Clear, 0-3	Partly cloudy, 4-7	Cloudy, 8-10	Sky cover, tenths (sunrise to sunset)	Possible sunshine
MICHIGAN	Ft.	Mb.	Mb.	F.	F.	F.	F.	F.		F.				F.	%	In.	In.	In.			In.	In.	M.p.h.		M.p.h.							%
GRAND RAPIDS	681		1015.3	63	44	53.3	2.1	82	15	24	26	0	4	44	74	1.64	-0.97	0.63	10	2	2.6	2	9.4	SSW	29	W	16	3	11	17	7.4	36
LANSING	852	982.8	1015.0	63	42	52.3	1.0	82	11	23	26	0	6	44	75	1.86	-0.64	0.73	8	2	1.0	1	12.0	SSW	37	W	16	4	9	18	7.3	69
MARQUETTE U	677	987.1		55	42	48.8	0.8	79	15	24	25	0	5			1.91	-0.42	0.61	11	1	4.5	3	7.6	W$	32	NW	25	2	8	21	8.1	38
MUSKEGON	627	991.7	1014.9	61	44	52.8	1.8	79	15	27	29	0	6	46	79	2.90	0.35	0.99	15	3	3.7	T	10.2	NNW	25*	SSW	16	2	13	16	7.3	
SAULT STE MARIE	721	991.2	1014.1	54	40	47.1	1.8	69	16+	24	29	0	8	41	80	1.87	-0.95	0.66	18	3	0.5	T	8.4	E	32*	WNW	16	2	7	22	8.3	34
MINNESOTA																																
DULUTH	1426	973.6	1015.5	54	36	45.1	1.0	73	15	15	26+	0	11	35	71	0.86	-1.31	0.30	10	1	0.7	T	10.9	E	42	W	16	1	10	20	7.9	40
INTERNATIONAL FALLS	1179	973.3	1015.0	56	34	44.8	2.4	75	15	13	25	0	13	37	75	0.23	-1.51	0.09	4	0	T	T	6.4	NW	28*	NW	24+	2	9	20	7.8	
MINNEAPOLIS	1822	981.8	1015.6	61	39	50.2	1.9	83	11	16	26	0	7	43	76	1.69	0.10	0.76	8	0	T	T	9.3	NW	33	NW	24	7	12	12	6.1	52
ROCHESTER	1297	967.6	1015.9	61	41	50.9	1.5	81	11	20	26	0	7	43	77	1.95	0.25	0.75	9	3	0.2	T	11.6	NW				9	10	12	5.9	
ST CLOUD	1034	977.6		61	38	49.6	2.3	80	15	21	26+	0	9			0.19	-1.45	0.16	4	0	T	T						7	9	15	6.6	
MISSISSIPPI																																
JACKSON	305	1005.4	1017.5	81	56	68.3	1.8	92	7	35	26	7	0	56	69	1.70	-0.24	0.78	4	2	0.0	0	6.0	SSE	22	NW	16	14	9	8	4.7	72
MERIDIAN	292	1004.2	1018.2	80	53	66.6	1.0	91	6	31	26	2	1	56	76	3.43	1.21	2.12	6	5	0.0	0	4.7	S	25*	NW	8	12	12	7	4.4	
VICKSBURG U	234	1008.1		78	60	68.9	1.4	89	14+	42	26	0	0			2.52	0.48	1.27	4	3	0.0	0	7.1		18	N	23+	12	10	9	4.8	76
MISSOURI																																
COLUMBIA	778	986.7	1015.3	70	50	59.9	1.2	89	11	29	26	0	3	50	74	2.48	-0.64	0.61	7	5	0.0	0	9.1	S	29	N	30	16	3	12	5.1	60
KANSAS CITY	742	980.5	1015.4	71	52	61.8	2.1	89	11	33	25	0	0	50	69	1.89	-0.97	0.89	9	3	0.0	0	6.0	SSW	40	NW	24	15	5	11	5.1	60
ST JOSEPH	809	980.8		70	48	58.8	1.4	87	11	30	25	0	3			1.67	-0.51	0.70	6	3	0.0	0	8.9	NNW	35*	NNW	15	13	7	11	4.8	
ST LOUIS	535	995.8	1016.4	71	51	61.0	2.1	90	11	28	26	1	2	49	69	2.70	-0.16	0.93	7	3	0.0	0	7.4	SW	27	NW	23	10	11	10	5.5	49
ST LOUIS RFC	465			71	53	62.0	1.2	90	11	33	26	1	0			2.73	-0.04	0.98	10		0.0	0										
SPRINGFIELD	1265	969.1	1016.6	71	49	59.6	- 0.1	87	11	29	26+	0	5	53	83	1.19	-2.57	0.52	12	5	0.0	0	9.0	SSE	38	NW	24	13	5	13	5.0	65
MONTANA																																
BILLINGS	3567	891.6	1015.8	66	41	53.7	3.7	81	13	27	25	0	1	33	51	0.29	-0.80	0.18	5	0	0.0	0	10.5	SW	37	NW	21	7	14	10	6.0	63
GLASGOW	2277	940.4		60	39	49.1	3.7	75	4	25	25	0	6		68	1.15	0.51	0.72	9	0	2.0	1						9	4	18	6.6	
GREAT FALLS	3662	888.6	1016.7	62	39	50.5	2.0	79	2+	29	25+	0	3	32	53	1.17	0.44	0.57	5	0	T	0	11.8	SW	38	SW	21	7	5	19	7.0	53
HAVRE	2582	926.2		62	36	48.9	2.6	83	2	23	25	0	9			1.09	0.30	0.75	8	0	0.0	0	8.1	SW$	35	W	8	7	8	16	6.6	54
HELENA	3893	874.7	1018.2	60	36	48.1	2.5	74	2	26	26+	0	8	33	60	0.95	0.29	0.57	4	0	0.0	0	7.2	WNW	25	W	21+	7	9	15	6.5	61
KALISPELL	2965	914.0		54	32	43.0	0.1	76	2	24	5	0	18			1.25	0.01	0.54	9	0	0.0	0	4.7					5	8	18	7.3	
MISSOULA	3190	904.5	1020.5	54	32	43.0	- 1.0	74	2	25	29+	0	18	35	80	1.35	0.36	0.48	9	0	T	T	5.1	NW	26	N	4	5	11	15	7.2	54
NEBRASKA																																
GRAND ISLAND	1841	949.7		66	40	53.3	- 1.1	87	11	17	25	0	7	43	73	1.35	0.39	0.86	7	1	0.0	0	9.5	S				14	9	8	4.8	
LINCOLN U	1150			68	47	57.1	0.4	88	11	26	25	0	1			2.14	0.56	1.22	8	2	0.0	0	8.7	S$	29	NE	20+	9	12	10	5.4	63
NORFOLK	1544	959.9		66	41	53.7	0.8	87	10	19	25	0	8			0.65	-0.53	0.35	6	1	T	T						10	12	9	5.1	
NORTH PLATTE	2779	916.5	1016.0	70	37	53.2	2.2	88	10	15	25	0	10	36	59	0.43	-0.48	0.38	3	0	0.0	0	9.9	N	34	N	24	13	12	6	4.5	75
OMAHA	978	975.6	1015.8	67	47	57.0	1.3	85	11	27	25	0	4	47	73	1.74	0.01	0.89	10	2	T	T	10.4	SSE	32	NW	15	8	15	8	5.4	62
OMAHA N OMAHA AP	1323	967.6		65	46	55.7	1.8	85	11	23	25	0	4			1.77	0.11	0.71	8	1	T	T						8	13	10	5.7	
SCOTTSBLUFF	3950	880.4	1017.0	68	36	52.4	2.0	86	10	24	25	0	10	34	58	1.12	0.43	1.10	3	0	0.0	0	10.8	NW	37*	NW	31	13	6	12	5.2	
VALENTINE	2587	924.7		68	35	51.6	2.3	88	14+	13	25	0	14			1.00	0.12	0.99	3	1	0.0	0	9.9		35	N	31	13	9	9	4.5	75
NEVADA																																
ELKO	5075	846.5	1018.0	71	29	49.9	3.0	83	2	17	26	0	23	23	40	0.12	-0.63	0.12	1	0	T	T	7.3	SW	32*	SSW	13+	19	5	7	3.2	
ELY	6257	811.1	1017.7	66	31	48.7	2.8	79	2	20	15	0	21	25	46	1.06	0.33	0.89	3	1	T	T	11.1	SSW	42	NE	14+	20	6	5	3.3	94
LAS VEGAS	2162	948.4	1014.1	82	55	68.7	1.6	95	3	48	19	4	0	34	32	0.45	0.25	0.45	1	0	0.0	0	9.7	SW	40	SW	14	23	3	5	2.3	90
RENO	4404	864.3	1018.6	71	31	51.2	1.0	85	2+	22	7	0	23	33	56	1.55	1.04	1.55	2	0	T	T	6.3	S	50	S	13	17	7	7	3.7	82
WINNEMUCCA	4299	869.5		70	31	50.7	3.0	86	2	20	25+	0	21		43	0.49	-0.32	0.42	4	0	T	T	8.4	S	51	W	10	17	3	11	4.2	97
NEW HAMPSHIRE																																
CONCORD	339	1003.7	1014.6	59	37	48.1	- 0.6	80	3	22	30	0	11	39	73	8.78	6.12	4.24	11	1	T	T	4.5	NW	21	NW	29+	5	10	16	6.9	48
MT WASHINGTON OBS	6262	802.4		35	23	29.1	- 1.8	53	4	5	27	0	27		91	13.30	7.11	5.21	17	1	24.7	4	34.6	W$	104Y	W	27	3	6	22	8.1	29
NEW JERSEY																																
ATLANTIC CITY	58	1012.7	1016.2	68	47	57.1	- 0.1	86	12	30	25	0	3	47	71	2.04	-1.16	0.83	9	2	T	T	8.3	N	23*	W	26	6	13	12	5.7	55
ATLANTIC CITY U	10			65	50	57.6	- 1.1	84	12	33	27+	0	0			2.38	-1.01	1.38	12				12.6		40*	N	9					
NEWARK	11	1014.4	1015.8	66	49	57.3	0.7	86	12	32	27	0	1	45	66	3.72	0.61	2.34	13	2	T	T	8.5	NW	25*	NNW	29	7	10	14	6.1	

See footnotes at end of table

CLIMATOLOGICAL DATA

ENGLISH UNITS

State and Station	Elevation (ground)	Pressure		Temperature											Average relative humidity	Precipitation							Wind					No. of days (sunrise to sunset)			Sky cover, tenths (sunrise to sunset)	Possible sunshine
												No. of days							No. of days		Snow, Sleet				Fastest mile							
		Station Ø	Sea level	Average maximum	Average minimum	Average	Departure from normal	Highest	Date	Lowest	Date	Max. 90°F. or above	Min. 32°F. or below	Average dew point		Total	Departure from normal	Greatest in 24 hours	.01 inch or more	With thunderstorms	Total	Maximum depth on ground	Average speed	Prevailing direction	Speed	Direction	Date	Clear, 0-3	Partly cloudy, 4-7	Cloudy, 8-10		
NEW JERSEY	Ft.	Mb.	Mb.	°F.	°F.	°F.	F.	°F.		F.				°F.	%	In.	In.	In.			In.	In.	M.p.h.		M.p.h.							%
TRENTON U	56	1008.1	1014.8	66	48	56.9	0.1	85	12	32	26+	0	2			1.61	-1.23	0.72	8	1	1.6	2	7.7	W	27	NW	7	8	12	11	5.8	58
NEW MEXICO																																
ALBUQUERQUE	5310	851.4	1016.4	71	45	58.1	- 0.4	82	14	37	29	0	0	39	55	0.75	0.00	0.25	8	3	0.0	0	7.0	ESE	49	SW	16	19	9	3	2.5	84
CLAYTON	4969	849.2		74	42	57.9	2.6	89	11	28	25	0	4			0.01	-0.99	0.01	1	0	0.0	0						20	8	3	2.5	
RATON	6379	807.8		71	36	53.5	2.4	86	14	27	31+	0	11			T	-1.04	T	0	0	0.0	0						22	7	2	2.6	
ROSWELL	3619	894.5		75	42	58.4	- 0.1	89	15+	31	31+	0	4			0.50	-0.57	0.19	8	1	0.0	0	7.7		26	NW	31	18	6	7	3.8	
SILVER CITY	5373	837.8		75	46	60.4		82	3	36	30+	0	0			0.71		0.27	7	6	0.0	0						22	5	4	2.4	
NEW YORK																																
ALBANY	277	1011.4	1015.2	59	41	50.2	- 0.6	80	12	26	25	0	6	40	71	3.58	0.81	1.00	11	1	T	T	7.7	S	27	NW	17+	4	9	18	7.5	52
BINGHAMTON	1590	955.4	1014.8	57	42	49.2	- 0.1	76	16	25	27+	0	6	43	81	7.15	4.06	3.50	15	2	0.7	T	9.0	WSW	27	SW	12	2	9	20	7.8	40
BUFFALO	705	987.0	1015.2	60	43	51.5	0.7	81	16	26	29	0	5	44	77	1.90	-1.10	0.67	12	3	2.0	2	9.4	WSW	31	SW	27	3	6	22	8.0	42
NEW YORK U	132	1003.7	1015.8	66	49	57.4	- 0.9	85	12	34	27+	0	0	45	69	3.15	0.01	1.40	13	2	T	0	7.8	W$	23	W	29+	11	8	12	5.6	50
NEW YORK LA GUARDIA	19	1013.6	1015.5	64	51	57.5	- 1.1	84	12	34	26	0	0	45	66	2.38	-0.99	0.90	13	1	1.2	T	9.9	NW	24	WNW	7+	9	10	12	6.0	
ROCHESTER	543	995.7	1015.2	61	43	51.8	0.0	83	16	27	25	0	5	44	77	1.95	-0.63	0.61	14	2	0.8	T	9.7	WSW	38	SW	27	4	6	21	7.7	40
SCHENECTADY	217			59	42	50.6	0.1	77	12	30	30+	0	4			3.53	0.62	0.91	12	1	T	T						14	5	12	5.1	
SYRACUSE	417	992.5	1014.7	59	43	51.2	- 0.6	82	16	27	25	0	5	42	74	3.30	0.12	0.94	17	1	2.8	2	11.9	E	54	W	23	3	7	21	7.8	37
NORTH CAROLINA																																
ASHEVILLE U	2203	938.7		70	47	58.3	0.7	84	8	23	27	0	5			2.40	-0.09	1.21	8	2	0.0	0	6.4	NW$	26	NW	25	18	8	5	3.7	72
CAPE HATTERAS R	7	1014.9	1015.6	73	58	65.6	0.2	84	8	33	27	0	0	58	75	3.45	-0.79	1.05	8	2	0.0	0	10.6	NNE	35	NNE	18	14	5	12	5.1	
CHARLOTTE	735	988.9	1017.1	74	51	62.6	0.6	87	8	24	27	0	3	50	67	1.57	-1.39	1.12	4	2	0.0	0	6.4	SW	23	NE	19	18	7	6	3.5	72
GREENSBORO	891	985.3	1017.3	73	49	60.9	1.6	87	8	20	27	0	3	48	68	0.65	-2.06	0.32	5	1	0.0	0	7.4	SW	25	NW	23	16	8	7	4.0	71
RALEIGH	433	1002.7	1016.6	74	50	61.8	1.3	87	11+	19	27	0	3	51	71	0.99	-1.72	0.67	4	1	0.0	0	6.9	SSW	22*	NE	19	13	9	9	4.8	58
WILMINGTON	30	1013.8	1016.7	77	55	65.8	0.4	89	8	27	27	0	3	56	74	0.76	-2.25	0.48	6	1	0.0	0	9.3	N	29	N	19	15	6	10	4.6	69
WINSTON SALEM	967	981.9	1017.3	73	51	62.0	1.7	87	8	27	27	0	2	47	63	0.59	-2.48	0.25	5	0	T	T	8.3	NE	27*	NE	18	18	6	7	3.7	
NORTH DAKOTA																																
BISMARCK	1647	954.9	1015.7	65	34	49.5	3.3	86	14	11	25	0	10	36	64	0.31	-0.54	0.21	5	0	T	T	7.4	WNW	34	NW	15	6	10	15	6.3	60
DEVILS LAKE U	1471	961.3		60	36	47.6	3.3	76	14	17	25	0	9			0.45	-0.62	0.20	7	0	T	T	7.5	S$	33	NW	15	9	8	14	5.9	61
FARGO	900	980.4	1015.2	64	39	51.1	4.6	86	14	19	25	0	8	41	74	0.86	-0.25	0.59	4	0	0.2	T	9.7	SSE	40	NW	15	4	10	17	7.0	65
WILLISTON U	1899	947.2		61	36	48.8	2.7	76	4	19	25	0	10			2.08	1.35	1.42	6	0	5.0	1	9.5	SW$	57	N	15	7	10	14	6.6	55
OHIO																																
AKRON	1209	977.9	1016.2	63	44	53.6	1.2	81	16+	23	27	0	5	44	73	2.72	0.24	0.78	14	3	1.8	T	8.7	SW	23*	WNW	23	5	7	19	7.0	
CINCINNATI OBS	761			70	49	59.1	1.2	86	15+	23	27+	0	4			3.69	1.45	1.42	11	4	T	T	5.5		26	W	25					54
CINCINNATI U	553	993.3		71	51	60.7	1.6	88	12	26	27	0	3			3.43	1.24	1.38	10	4	T	T										
CLEVELAND	777	987.6	1015.6	64	45	54.6	2.8	83	16+	23	27	0	4	46	75	3.60	1.18	0.81	13	4	8.0	6	9.4	SSW	33	SW	28	4	10	17	7.2	44
COLUMBUS	812	986.7	1016.8	65	44	54.4	- 0.8	82	16+	20	27	0	6	46	75	2.06	-0.05	1.00	9	2	1.3	1	7.8	S	28	W	25	4	9	18	7.0	45
COLUMBUS U	724			66	49	57.2	0.6	83	11	23	26	0	3			2.08	0.20	1.14	10	3	1.2	T										
DAYTON	997	983.7	1016.5	66	46	56.1	0.5	83	15+	21	26	0	4	47	73	2.23	0.00	1.09	12	4	2.0	1	9.5	S	32	SW	25	4	15	12	6.4	44
MANSFIELD	1296			62	44	53.0	0.6	80	16+	21	26	0	5			1.98	-0.29	0.95	9	3	0.6	1						4	9	18	7.1	
SANDUSKY U	606	993.7		64	47	55.7	0.2	86	11	25	27	0	4			2.54	0.49	1.10	10	3	T	T	9.0		44	NW	22	6	12	13	6.1	63
TOLEDO	676	990.1	1015.4	65	43	54.2	2.1	86	11	23	27	0	6	46	76	2.08	-0.31	0.79	10	2	0.2	T	8.2	WSW	29	SW	28+	4	11	16	6.8	58
YOUNGSTOWN	1178	973.1	1016.0	62	43	52.3	- 0.1	81	11	25	27+	0	5	44	74	3.62	0.91	0.64	16	4	7.4	3	9.4	SSW	27*	WNW	23	5	9	17	7.0	
OKLAHOMA																																
OKLAHOMA CITY	1280	973.1	1016.4	75	54	64.7	2.3	92	15+	37	25	4	0	54	71	2.43	-0.08	0.82	7	5	0.0	0	13.0	SSE	37	SW	15	15	8	8	4.3	65
TULSA	676	991.6	1016.0	76	54	64.9	1.1	90	11	34	25	1	0	54	74	3.92	0.61	1.17	9	5	0.0	0	10.8	SSE	28	SE	15	14	9	8	4.8	63
OREGON																																
ASTORIA	8	1015.4	1016.3	61	46	53.4	0.5	72	28	37	17	0	0	50	87	7.40	-0.38	3.09	16	2	0.0	0	8.4	SSE	44*	SSW	12	3	6	22	7.7	
BURNS U	4151	874.9		63	33	48.2	- 0.2	80	2	22	7	0	14			3.68	2.82	1.41	9		T	T						14	5	12	4.9	
EUGENE	361	1003.8		61	44	52.6	- 0.6	76	1	32	17	0	1			6.33	2.50	1.70	10	0	0.0	0	6.3		63*	S	12	0	16	15	7.8	
MEACHAM	4050			55	38	46.4	0.1	72	2	29	16+	0	6			3.91	1.07	1.27	11	0	T	T						13	4	14	5.7	
MEDFORD	1298	970.3	1018.4	63	39	51.3	- 2.7	81	1	29	17	0	4	44	85	6.27	4.33	2.54	9	0	0.0	0	2.9	WNW	40*	SSW	12+	6	10	15	6.7	
PENDLETON	1482	964.2	1018.3	63	43	52.7	- 0.5	74	2+	36	7	0	0	42	69	1.62	0.44	0.69	8	0	0.0	0	7.6	SSE	41*	WSW	12+	11	5	15	6.0	
PORTLAND	21	1011.3	1017.1	64	47	55.1	0.9	75	2+	38	17	0	0	47	78	3.31	-0.30	0.92	12	1	0.0	0	6.8	ESE	88	S	12	6	7	18	7.1	36
PORTLAND U	30			64	49	56.4	- 0.1	77	1	42	16	0	0			4.18	0.29	1.25	12		0.0	0										

See footnotes at end of table

CLIMATOLOGICAL DATA

ENGLISH UNITS

State and Station	Elevation (ground)	Pressure		Temperature											Average relative humidity	Precipitation							Wind					No. of days (sunrise to sunset)			Sky cover, tenths (sunrise to sunset)	Possible sunshine
											No. of days								No. of days		Snow, Sleet				Fastest mile							
		Station Ø	Sea level	Average maximum	Average minimum	Average	Departure from normal	Highest	Date	Lowest	Date	Max. 90 F. or above	Min. 32 F. or below	Average dew point		Total	Departure from normal	Greatest in 24 hours	.01 inch or more	With thunderstorms	Total	Maximum depth on ground	Average speed	Prevailing direction	Speed	Direction	Date	Clear, 0-3	Partly cloudy, 4-7	Cloudy, 8-10		
	Ft.	Mb.	Mb.	F.	F.	F.	F.	F.		F.				F.	%	In.	In.	In.			In.	In.	M.p.h.		M.p.h.							%
OREGON																																
ROSEBURG	505	998.8		63	44	53.3	- 1.1	85	1	34	16+	0	0			5.55	2.53	1.13	15	0	0.0	0	3.6		50	S	12	0	13	18	8.0	34
SALEM	195	1009.5	1017.6	62	43	52.6	- 1.5	75	1	34	16	0	0	47	85	4.55	0.64	1.04	11	0	0.0	0	7.2	S	58*	S	12	4	8	19	7.5	
SEXTON SUMMIT R	3836	884.5		59	44	51.1	0.4	75	1	34	14	0	0			9.77	6.36	2.53	9	0	0.0	0	12.3	S				14	6	11	4.7	
PACIFIC AREA																																
CANTON ISLAND	8	1010.0	1010.5	89	78	83.2	- 0.5	90	6	75	29	1	0	71	71	0.24	-0.86	0.13	5	0	0.0	0	13.6	ENE	24	NNE	21	15	12	4	4.4	
ENIWETOK	16	1009.2	1009.9	88	78	82.8	- 0.2	91	9	73	10	8	0			8.53	-0.56	2.05	24	0	0.0	0	9.7									
TAGUAC GUAM R	361			85	74	79.4	0.1	87	21+	68	11	0	0			14.95	1.85	4.50	23	2	0.0	0	6.3		28	SW	2					41
KOROR R	94	1006.1	1008.6	89	77	82.6	1.4	91	14+	74	25+	9	0	76	84	9.09	-4.00	2.94	15	3	0.0	0	6.0	SW	25	SW	20	0	1	30	9.7	57
PONAPE R	123	1004.7	1009.3	88	72	80.1	0.4	90	15+	70	6	5	0	75	87	18.57	2.60	4.78	24	1	0.0	0	2.5	ESE	16	E	21+	0	4	27	9.0	52
TRUK MOEN ISLAND	5	1009.5	1009.8	87	75	81.3	0.7	89	27+	73	27+	0	0	75	84	9.77	-3.68	4.72	20	1	0.0	0	3.7	SSE	22	S	22	1	9	21	8.3	35
WAKE ISLAND	11	1012.8	1013.3	85	76	80.6	- 1.0	89	11	69	5	0	0			9.65	-3.54	3.01	21	4	0.0	0	7.3	SW	37	SW	23	0	0	31	10.0	67
YAP R	53	1007.1	1008.1	88	76	82.0	0.4	91	18+	74	30+	8	0	76	85	11.70	6.43	3.19	19	2	0.0	0	16.0		37*	E	18	3	8	20	7.8	
PENNSYLVANIA																																
ALLENTOWN	376	1001.7	1016.2	64	43	53.5	- 0.3	80	12	25	30	0	6	44	74	3.05	0.08	1.20	11	1	0.2	T	7.9	WSW	28*	NW	7	7	13	11	6.0	
ERIE	732	988.8	1015.1	62	47	54.1	1.5	82	16+	31	25	0	1	45	73	4.02	0.72	0.94	15	9	3.0	1	13.2	S	31*	WSW	16	4	10	17	7.5	
HARRISBURG	335	1002.0	1015.9	66	45	55.7	0.0	85	12+	28	25	0	5	46	72	4.21	1.24	2.57	8	1	T	T	7.1	WNW	26	NW	24	6	10	15	6.3	58
PHILADELPHIA	5	1011.1	1015.7	67	45	56.3	0.6	85	12	25	25	0	4	45	68	0.95	-1.83	0.29	10	1	T	T	7.6	N	28	N	29	9	9	13	6.0	56
PHILADELPHIA U	35			67	50	58.8	0.3	86	12	32	27	0	1																			
PITTSBURGH	1168	986.2	1017.0	63	43	53.3	0.2	80	16	24	27	0	5	43	70	2.11	-0.41	0.87	13	3	1.8	T	7.8	WSW	28*	SW	28	8	7	16	6.6	51
PITTSBURGH U	749			66	47	56.6	0.5	83	16+	30	27+	0	3			1.64	-0.86	0.33	12		T											40
READING U	266	1003.6	1015.9	66	47	56.6	- 0.6	84	12	30	30	0	2			3.32	0.48	1.18	11	0	T	T	8.5	NWS	38	W	24	9	9	13	5.9	51
SCRANTON	940	981.7	1016.0	60	43	51.6	0.6	77	12	27	25	0	6	42	72	5.46	1.96	2.61	14	2	4.4	3	6.9	SW	24	S	12	4	11	16	7.0	46
WILLIAMSPORT	527	996.8	1016.0	63	42	52.5	- 0.6	81	11	26	28	0	6	43	74	5.31	1.99	3.84	15	1	0.3	T	7.3	W	23*	S	16	3	12	16	7.2	
RHODE ISLAND																																
BLOCK ISLAND	110	1010.0	1014.4	59	48	53.8	- 1.4	71	12	30	30	0	1			7.27	4.25	1.76	11	2	T	T						5	8	18	7.1	
PROVIDENCE	55	1008.6	1014.8	61	43	52.2	- 1.0	80	12	28	30	0	4	43	72	11.89	8.79	6.63	10	3	1.6	2	9.6	WNW	32*	SSW	28	9	5	17	6.4	51
SOUTH CAROLINA																																
CHARLESTON	41	1014.5	1016.6	78	55	66.5	0.3	90	8	33	28+	1	0	56	73	3.25	0.41	1.77	6	1	0.0	0	7.6	N	36Y	N	31	14	11	6	4.1	74
CHARLESTON U	9			77	61	69.2	1.1	89	8+	39	27	0	0			2.09	-0.65	1.37	8		0.0	0	9.6		31	E	2					
COLUMBIA	217	1004.1	1017.0	79	52	65.4	0.7	90	13+	26	27	2	4	52	67	0.89	-1.49	0.80	3	1	0.0	0	6.6	WSW	20*	NNE	19	16	8	7	4.0	72
FLORENCE	146	1010.7	1016.6	79	53	65.8	0.8	92	8	27	27	2	3	52	66	0.28	-1.90	0.11	4	0	0.0	0	7.7	NNE	23*	NNE	18	17	7	7	4.1	
SOUTH DAKOTA																																
HURON	1282	968.2	1015.8	66	36	50.7	0.9	83	14	13	25	0	12	38	66	0.55	-0.60	0.40	4	0	0.9	T	9.4	NW	34	NW	15	9	11	11	5.4	69
RAPID CITY	3165	902.2	1016.5	66	40	52.9	2.9	83	14+	21	25	0	5	36	59	1.63	0.84	1.45	5	0	T	T	10.7	NNW	38*	NW	15	13	6	12	5.3	74
SIOUX FALLS	1420	963.9	1015.9	65	41	52.7	2.4	82	10	19	25	0	7	42	71	0.46	-0.79	0.21	5	0	0.7	T	8.4	N	23*	NNW	22+	11	9	11	5.2	
TENNESSEE																																
BRISTOL	1507	963.1	1017.8	69	48	58.6	0.9	81	8	20	27	0	3	49	74	2.27	0.12	0.96	9	1	T	T	4.4	SW	25*	WNW	30+	11	9	11	5.3	
CHATTANOOGA	670	990.3	1018.1	76	51	63.2	2.1	86	12	28	27	0	2	51	71	3.38	0.36	1.92	6	3	0.0	0	5.7	S	25	NW	23	15	6	10	4.5	70
KNOXVILLE	950	982.8	1018.2	74	51	62.5	1.6	84	15+	25	27	0	2	49	64	2.20	-0.41	0.98	8	2	T	T	6.6	SW	26	SW	25	13	9	9	4.9	56
MEMPHIS	263	1002.7	1017.4	76	56	65.9	2.3	87	15+	36	24	0	0	55	70	2.57	-0.15	1.33	7	2	0.0	0	8.4	S	26	NE	30	12	9	10	4.8	70
MEMPHIS U	271			74	58	66.3	1.6	87	14	40	24	0	0			2.10	-0.76	0.73	7		0.0	0										
NASHVILLE	577	997.2	1017.2	75	51	62.9	1.4	86	15+	30	27+	0	2	52	71	2.29	-0.03	1.50	7	2	0.0	0	6.3	S	26	NW	25	13	9	9	4.9	63
OAK RIDGE	905	984.8		72	49	60.8	0.9	85	8	24	27	0	4			3.28	0.61	1.22	7	1	T	T	3.0		32Y			15	8	8	4.2	
TEXAS																																
ABILENE	1759	955.0	1015.7	80	58	69.1	2.9	95	15	40	30	6	0	55	65	2.27	-0.58	1.45	3	3	0.0	0	9.3	S	29	SE	12	14	6	11	4.6	71
AMARILLO	3607	889.4	1015.1	75	48	61.5	2.0	92	11	36	29	4	0	41	55	0.85	-0.91	0.69	3	0	0.0	0	11.4	SW	34	SW	19	20	6	5	2.9	81
AUSTIN	597	994.7	1016.5	83	64	73.3	2.6	93	15+	48	30	10	0	61	69	4.07	1.24	1.55	5	6	0.0	0	8.9	S	36	NW	8	10	9	12	5.3	50
BROWNSVILLE	16	1012.9	1015.4	89	71	79.6	3.7	96	1	52	31	16	0	69	73	1.04	-2.49	0.38	6	2	0.0	0	11.2	SE	28	NW	30	8	17	6	4.6	63
CORPUS CHRISTI	43	1014.5	1016.0	88	69	78.7	4.2	96	9	50	30	15	0	66	69	0.39	-2.37	0.20	5	2	0.0	0	12.2	SSE	26	SE	28+	8	16	7	4.8	70
DALLAS	481	998.3	1016.8	80	61	70.9	3.1	92	7	43	31	5	0	58	66	7.29	4.59	4.92	4	3	0.0	0	11.8	SSE	34	W	8	10	13	8	5.0	64
DEL RIO U	957			87	67	76.6	4.8	98	15	47	30	11	0			2.91	0.93	2.51	6	5	0.0	0										
EL PASO	3918	887.7	1014.6	79	51	64.9	- 0.5	87	15+	36	22	0	0	43	50	0.55	-0.30	0.45	4	2	0.0	0	6.1	NE	42	S	4	24	3	4	2.3	85
FORT WORTH	544	996.0	1016.7	80	61	70.4	2.5	92	11	43	31	6	0	58	67	4.15	1.56	2.23	6	3	0.0	0	11.5	S	28*	SSW	15	10	14	7	4.8	

See footnotes at end of table

CLIMATOLOGICAL DATA

ENGLISH UNITS

OCTOBER 1962

State and Station	Elevation (ground)	Pressure		Temperature											Average relative humidity	Precipitation							Wind					No. of days (sunrise to sunset)			Sky cover, tenths (sunrise to sunset)	Possible sunshine
												No. of days							No. of days		Snow, Sleet				Fastest mile							
		Station Ø	Sea level	Average maximum	Average minimum	Average	Departure from normal	Highest	Date	Lowest	Date	Max. 90 F. or above	Min. 32 F. or below	Average dew point		Total	Departure from normal	Greatest in 24 hours	.01 inch or more	With thunderstorms	Total	Maximum depth on ground	Average speed	Prevailing direction	Speed	Direction	Date	Clear, 0-3	Partly cloudy, 4-7	Cloudy, 8-10		
TEXAS	Ft.	Mb.	Mb.	F.	F.	F.	F.	F.		F.				F.	%	In.	In.	In.			In.	In.	M.p h.		M.p.h.							%
GALVESTON U	7			80	71	75.3	1.8	86	9	58	31	0	0			3.29	0.43	1.17	6		0.0	0	11.1		29	S	14					86
GALVESTON	5	1014.7	1017.1	81	71	76.1	2.7	88	11+	58	31+	0	0	62	62	3.50	0.31	1.26	8	7	0.0	0	10.4	SE				15	10	6	4.5	
HOUSTON U	41			85	68	76.3	3.9	96	8	54	31	9	0			5.69	2.09	2.12	7		0.0	0										
HOUSTON	50	1014.0	1016.5	85	64	74.6	2.2	96	8	51	31	10	0	64	76	3.12	-0.65	1.20	7	7	0.0	0	8.8	SSE				9	15	7	4.7	76
LAREDO	500	999.8	1014.9	91	70	80.5	5.0	98	10	49	30	18	0	62	59	0.33	-1.30	0.21	3	1	0.0	0	11.8	SE	29*	S	17	12	15	4	4.2	
LUBBOCK	3243	904.6	1015.8	76	50	62.7	1.5	90	12+	39	30	2	0	49	66	2.66	0.66	1.16	7	5	0.0	0	12.1	SSW	27*	ENE	23+	22	3	6	3.0	
MIDLAND	2854	916.6	1014.5	79	56	67.6	1.7	94	15	43	24	8	0	51	62	0.87	-0.79	0.37	5	3	0.0	0	9.7	S	24*	ENE	16	15	8	8	4.1	
PORT ARTHUR	16	1015.1	1015.3	84	62	72.9	3.1	93	8	46	31	7	0	65	81	3.07	0.19	0.94	8	8	0.0	0	7.8	S	38	N	16	8	18	5	4.9	72
SAN ANGELO	1903	948.5	1014.9	84	60	72.1	3.3	98	15	40	30	8	0	55	61	0.72	-1.11	0.58	4	5	0.0	0	8.6	SSE	25*	SSE	5	15	8	8	4.4	
SAN ANTONIO	792	991.1	1015.8	86	65	75.5	4.9	95	15+	46	30	11	0	60	63	2.19	-0.31	1.10	3	2	0.0	0	9.9	SSE	29	ENE	16	9	15	7	4.9	60
VICTORIA	104	1011.7		86	66	76.0	3.4	95	9+	50	31+	13	0			1.47	-2.01	0.60	7	7	0.0	0	9.9		39Y		28	10	14	7	4.7	
WACO	500	995.7	1015.2	82	62	72.3	2.9	93	7	45	31	10	0	59	67	2.37	-0.18	1.10	6	5	0.0	0	14.2	SSE	29	S	28+	9	11	11	5.3	
WICHITA FALLS	994	979.0	1015.7	80	57	68.7	2.8	95	15	40	25	7	0	55	68	2.15	-0.72	1.58	5	5	0.0	0	10.4	S	46*	SW	27	20	5	6	3.5	
UTAH																																
MILFORD	5028	846.2		69	35	52.1	1.4	82	3+	22	27	0	14			0.55	-0.22	0.29	6	1	T	T						20	4	7	3.1	
SALT LAKE CITY	4220	869.9	1018.1	69	41	55.3	2.6	84	4+	31	26+	0	3	33	51	0.93	-0.22	0.62	4	2	T	T	10.1	S	47	S	14	18	7	6	3.5	80
WENDOVER	4237	872.2		67	44	55.8	2.6	82	9	37	26	0	0			0.94	0.48	0.94	2	1	T	T						21	4	6	3.0	
VERMONT																																
BURLINGTON	331	999.8	1014.6	55	38	46.3	- 2.3	73	3	23	29	0	10	39	77	3.28	0.31	1.13	16	1	0.1	T	7.3	S	27	NW	12	2	7	22	8.1	33
VIRGINIA																																
LYNCHBURG	947	991.7		70	49	59.6	1.4	86	8	21	27	0	3			1.50	-1.14	1.18	5	0	T	T	8.1		24	W	23	15	8	8	4.6	64
NORFOLK	26	1015.1	1016.5	70	54	61.8	- 0.2	84	12+	30	27	0	1	53	75	4.48	1.56	3.30	5	2	0.0	0	10.3	SW	35	W	26	14	8	9	4.9	62
RICHMOND	162	1010.3	1016.6	74	47	60.5	1.3	87	12+	21	27	0	4	47	66	0.50	-2.50	0.31	5	0	0.0	0	6.8	NNE	20	NW	26+	14	7	10	4.8	62
ROANOKE	1174	975.0	1017.3	70	49	59.4	1.2	86	13+	26	27	0	4	46	65	2.22	-0.99	1.43	9	2	T	T	8.3	WSW	30	W	26	12	8	11	4.9	
WASHINGTON																																
OLYMPIA	190	1010.6	1017.6	61	41	51.0	- 0.4	74	2	35	17+	0	0	47	87	6.00	0.72	2.10	17	2	0.0	0	6.0	SW	58*	SW	12	1	6	24	8.3	
SEATTLE TACOMA	400	1002.9	1017.1	59	46	52.6	0.7	72	2+	38	16	0	0	47	86	4.16	0.14	1.43	14	2	0.0	0	9.0	SE	44*	SSW	12	3	8	20	7.6	
SEATTLE U	14			61	50	55.7	1.3	73	1	42	16	0	0			3.41	0.13	1.21	14	0	0.0	0			65	SW	12					39
SPOKANE	2357	949.5	1018.4	56	39	47.6	- 1.0	79	2	31	17	0	2	40	81	1.62	0.05	0.54	9	0	0.0	0	7.4	NE	33	SW	12	3	9	19	7.6	44
STAMPEDE PASS R	3958	880.1		48	37	42.6	0.2	64	2	30	16+	0	7			4.86	-3.95	0.88	19	0	11.3	6						4	5	22	7.8	
TATOOSH ISLAND	101	1013.0	1015.9	57	48	52.5	0.6	63	1	44	11	0	0	49	86	6.48	-1.74	1.20	18	1	0.0	0	16.5	ENE	66	E	12+	3	5	23	8.3	39
WALLA WALLA U	949	981.3		62	46	54.2	- 0.9	75	1	38	16	0	0			2.99	1.46	0.88	8	0	0.0	0	3.5	E$	34	W	12	9	5	17	6.5	48
YAKIMA	1061	978.5	1017.9	63	36	49.8	- 0.7	76	2+	30	16+	0	5	40	76	1.49	0.89	0.64	5	0	0.0	0	6.1	WNW	24*	SSW	12+	9	9	13	5.9	
WEST INDIES																																
SAN JUAN P.R.	15	1010.8	1013.6	88	73	80.5	2.3	92	5	70	22	8	0	72	79	2.80	-3.69	0.69	18	5	0.0	0	5.0	SSE	21	E	7	2	21	8	6.2	69
SWAN ISLAND	28	1010.7		86	78	82.2	0.5	89	10	72	26	0	0			9.87	0.17	2.04	21	6	0.0	0						4	13	14	7.0	
WEST VIRGINIA																																
CHARLESTON	939	1015.2	1017.0	68	47	57.3	0.0	84	12	17	27	0	4	48	76	2.53	-0.05	1.29	11	1	0.6	1	5.3	SW	25*	WSW	25	3	14	14	6.7	
ELKINS	1970	1015.6	1017.5	64	41	52.5		82	15	12	27	0	11	45	79	5.18		1.72	15	4	2.7	2	6.4	WSW	28*	NW	23	4	11	16	7.1	
HUNTINGTON U	827	987.0		69	47	57.9	- 0.8	86	12	16	27	0	5	77	74	2.80	0.74	1.03	12	1	T	T	5.8	SSW	21*	WNW	23	6	10	15	6.2	
PARKERSBURG U	615			66	47	57.6	0.6	86	15	21	27	0	3			2.18	0.13	0.66	9	3	T	T	5.9		29	NE	23					49
WISCONSIN																																
GREEN BAY	682	991.8	1014.9	60	42	50.7	2.3	80	14	22	26+	0	8	45	81	1.94	0.03	0.82	7	3	0.4	T	6.9	NE	31	W	16	5	12	14	6.8	39
LA CROSSE	652	990.4		62	44	53.1	2.0	85	10	18	26	0	5	43	73	2.24	0.05	0.63	7	1	T	T	10.1	S	39*	NW	22	7	9	15	6.5	
MADISON	858	979.6	1015.1	62	42	51.9	1.5	82	10	16	26	0	9	44	75	1.68	-0.53	0.66	11	2	0.2	T	9.3	S	27	NW	24+	6	13	12	6.3	49
MILWAUKEE	672	989.9	1013.9	61	44	52.6	2.6	81	15+	22	26	0	5	44	74	2.14	0.04	1.49	10	1	0.1	T	10.9	SSW	28	W	16	6	14	11	6.3	57
WYOMING																																
CASPER	5319	838.6	1016.6	65	38	51.3	3.0	80	4	25	25	0	5	28	48	2.49	1.65	2.49	2	1	0.0	0	11.1	WSW	37*	SW	14+	11	12	8	5.2	
CHEYENNE	6126	815.1	1016.7	65	37	51.0	3.5	79	14+	26	25	0	6	29	50	0.62	-0.21	0.61	2	1	T	T	12.3	WNW	49	NW	14	12	9	10	4.9	76
LANDER	5563	836.5	1016.1	66	38	51.6	4.5	80	4	23	17	0	8	28	46	1.10	-0.11	1.08	3	1	0.0	0	6.6	WSW	34	SW	14+	10	13	8	4.6	83
SHERIDAN	3942	885.5	1017.3	66	35	50.1	2.3	81	4	20	25	0	11	34	60	0.37	-0.76	0.27	4	0	T	T	6.3	WNW	36	NW	14	8	13	10	5.7	66

Data from airport unless otherwise specified. U indicates Urban, R indicates Rural, sites.

* Data entered in column "Fastest Mile" is the fastest mile observed. This station is not equipped with automatic wind recording instrument.

A Maximum hourly average.

+ And also on an earlier date or dates.

Ø Station pressures apply to elevations shown in the "Elevations - **Station Pressure**" table of the annual issue of this publication.

B Number of days maximum 70 F. or above for Alaskan Stations.

$ Wind direction to 8 compass points only.

Y Peak Gust.

CLIMATOLOGICAL DATA

METRIC UNITS

State and Station	Elevation (ground)	Pressure: Station ⊙	Pressure: Sea level	Temperature: Average maximum	Temperature: Average minimum	Temperature: Average	Temperature: Departure from normal	Temperature: Highest	Temperature: Date	Temperature: Lowest	Temperature: Date	Temperature: No. of days: Max 32.2 °C or above	Temperature: No. of days: Min. 0 C or lower	Average dew point	Average relative humidity	Precipitation: Total	Precipitation: Departure from normal	Precipitation: Greatest in 24 hours	Precipitation: No. of days: 25 mm. or more	Precipitation: No. of days: With thunderstorms	Precipitation: Snow, Sleet: Total	Precipitation: Snow, Sleet: Maximum depth on ground	Wind: Average speed	Wind: Prevailing direction	Wind: Fastest mile (1.6 kilometers): Speed	Wind: Fastest mile (1.6 kilometers): Direction	Wind: Fastest mile (1.6 kilometers): Date	No. of days (sunrise to sunset): Clear, 0-3	No. of days (sunrise to sunset): Partly cloudy, 4-7	No. of days (sunrise to sunset): Cloudy, 8-10	Sky cover, tenths (sunrise to sunset)	Possible sunshine
ALABAMA	M.	Mb	Mb.	C.	C.	C.	C.	C.		C.				C.	%	Mm.	Mm.	Mm.			Mm.	Mm.	M.p.s.		M.p.s.							%
BIRMINGHAM	186	992.8	1018.3	25.6	12.2	19.1	1.5	31.7	6	-1.1	26	0	1	11.1	64	52	-23	46	3	0	0	0	3.0	ENE	11.2	N	31	16	6	9	4.1	74
HUNTSVILLE	184	994.8	1018.0	25.0	11.1	18.0	0.7	31.1	7+	-1.7	26	0	2	11.1	68	80	10	50	5	1	0	0	3.1	SE	10.7*	NW	23+	12	12	7	4.4	
MOBILE	64	1014.6	1017.0	27.2	16.1	21.7	1.2	32.2	8	5.6	26	1	0	15.0	71	61	-16	38	4	5	0	0	2.5	ENE	12.5*	NNW	31	14	9	8	3.9	
MONTGOMERY	59	1009.5	1017.7	27.2	12.8	20.0	0.8	32.2	15+	0.0	27+	2	2	12.8	70	17	-41	6	6	2	0	0	2.8	NW	11.2	N	31+	15	8	8	3.8	73
ALASKA												8																				
ANCHORAGE	27	995.6	1000.7	6.7	0.0	3.2	1.6	12.8	2	-5.6	30	0	17	0.0	82	40	-8	24	9	0	76	25	2.3	SSE	10.3*	S	27	2	6	23	8.0	37
ANNETTE	34	1005.6	1009.8	12.2	7.2	9.4	1.3	18.3	29	1.1	21	0	0	6.1	82	384	-45	69	27	0	0	0	4.6	SE	17.0*	SE	27	0	2	29	9.6	
BARROW	7	1010.9	1011.7	-6.1	-10.6	-8.2	0.3	0.6	4	-22.2	22	0	31	-10.6	83	13	1	2	20	0	137	229	6.5	ENE	14.3*	ENE	11+	0	3	28	9.5	
BARTER ISLAND	12	1007.5	1009.5	-3.3	-8.9	-6.4	1.8	0.0	5+	-20.0	30	0	32	-8.9	81	7	-14	4	6	0	71	127	6.3	E	17.0*	W	29+	2	2	27	8.8	
BETHEL	38	998.8	1000.1	2.2	-3.9	-0.8	-0.5	8.9	6	-10.0	28	0	30	-2.8	86	22	-18	5	10	0	274	76	4.8	NE	10.7*	S	1	2	6	23	8.4	
COLD BAY	29	995.9	999.8	6.7	2.2	4.2	-0.3	11.1	5	-2.2	28	0	7	1.7	83	106	-11	23	26	0	109	1	7.3	WSW	19.2*	SSE	5	0	4	27	8.7	
CORDOVA	12	1000.0	1001.7	9.4	1.7	5.5	1.2	15.0	1	-3.9	13	0	12	2.8	84	320	17	51	23	1	T		3.0	ESE	13.9*	ESE	28+	2	6	23	8.4	
FAIRBANKS	133	986.8	1004.1	3.3	-4.4	-0.7	2.6	11.7	2	-13.3	21	0	31	-3.9	81	7	-14	3	9	0	71	51	2.5	N	8.9*	NE	12+	7	4	20	7.2	
JUNEAU	5	1005.9	1006.8	10.0	2.8	6.3	1.0	13.9	12+	-2.8	23	0	4	3.9	83	188	-24	42	22	0	0	0	4.1	ESE	15.6*	ESE	27	2	1	28	9.4	12
KING SALMON	13	997.3	999.6	5.6	-1.7	1.8	-0.3	10.0	2	-7.8	29	0	23	-0.6	84	43	-12	10	17	0	41	T	4.4	N	18.3*	E	23	2	3	26	8.7	
KOTZEBUE	3	1005.2	1005.9	-1.7	-7.8	-4.6	-0.6	6.1	5	-19.4	31	0	30	-7.2	81	10	-5	3	11	0	175	102	4.3	ENE	13.0*	N	10+	8	5	18	7.0	
MC GRATH	102	990.1	1003.2	1.1	-6.7	-2.8	0.1	8.3	4	-17.8	29	0	28	-5.0	83	15	-18	5	11	0	330	178	1.8	N	8.9*	NNW	11	3	5	23	8.3	
NOME	4	1002.6	1003.5	1.1	-5.0	-2.2	-0.9	6.1	2	-13.3	29	0	29	-6.1	74	12	-32	8	7	0	28	25	5.9	N	13.9*	SSE	1	4	10	17	7.0	37
ST. PAUL ISLAND	7	999.1	1000.2	5.0	-0.6	2.3	-0.6	8.9	6+	-7.8	22	0	18	0.6	85	61	-19	12	19	0	135	5	9.1	NW	24.6*	NW	23	0	4	27	9.2	
SHEMYA	37	1003.2	1006.8	7.2	3.3	5.2	0.9	10.6	3+	-2.2	31	0	5	2.2	81	218	148	134	24	0	18		9.3	WSW	23.7*	SSE	3	0	11	20	8.0	
YAKUTAT	9	1002.5	1003.7	10.0	2.2	6.2	0.7	16.1	12	-3.3	3	0	9	3.9	87	503	6	82	23	1	T	T	4.2	ENE	20.6*	ESE	27	6	2	23	7.9	
ARIZONA																																
FLAGSTAFF	2131	792.5	1018.2	17.8	-0.6	8.6	0.0	22.8	2	-3.3	28+	0	21	-1.1	59	31	-7	22	7	4	0	0	2.9	NNE	9.4*	SSW	14	23	2	6	2.4	
PHOENIX	338	973.5	1012.2	31.1	12.8	22.0	-0.3	36.7	1	8.3	20	14	0	5.0	36	T	-12	T	0	0	0	0	1.7	E	8.9*	SW	16	25	6	0	1.5	93
PRESCOTT	1528	848.0	1015.6	23.3	5.6	14.3	0.1	27.8	3+	1.7	21	0	0	0.6	45	4	-15	4	1	1	0	0	4.0	SSW	14.8	S	4	24	4	3	1.8	88
TUCSON	788	924.9	1012.3	28.9	13.9	21.4	0.3	33.3	2	7.2	20	4	0	4.4	38	6	-11	3	3	1	0	0	4.1	SSE	13.9	S	16	20	11	0	2.0	93
WINSLOW	1487	853.5	1017.4	23.3	5.6	14.2	-0.2	30.6	4	1.7	30+	0	0	2.2	54	42	25	35	5	4	0	0	3.3	SW	15.6*	SSE	4	23	4	4	2.0	
YUMA	61	1006.7	1012.0	34.4	16.1	25.0	-0.2	41.1	2	12.8	20+	24	0	6.7	36	1	-8	1	1	0	0	0	2.9	NNE	9.8	N	29+	28	3	0	1.0	97
ARKANSAS																																
FORT SMITH	137	999.7	1016.7	24.4	13.3	18.8	1.2	32.8	7	3.3	26+	2	0	13.9	78	124	37	38	8	8	0	0	3.0	NE	11.6	N	16+	9	9	13	5.9	46
LITTLE ROCK	78	1004.2	1017.3	25.0	13.3	19.1	1.8	32.2	11	4.4	31	1	0	13.3	75	90	17	28	11	6	0	0	3.0	SW	11.6	S	6	8	13	10	5.7	47
TEXARKANA	110		1015.9	25.0	15.0	20.2	1.2	32.8	7	5.0	31	1	0	15.6	81	116	40	44	7	6	0	0	3.6	S								
CALIFORNIA																																
BAKERSFIELD	151	998.7	1016.5	25.6	11.7	18.7	-0.6	33.3	1	7.8	28	1	0	8.9	57	6	-2	6	1	0	0	0	2.8	NW	10.3*	NNW	14	18	7	6	3.3	
BISHOP	1252	874.7		26.1	4.4	15.4	1.6	31.7	1	1.7	27+	0	0			T	-11	T	0	0	0	0						24	3	4	2.5	
BLUE CANYON	1609	840.3		16.7	8.3	12.5	0.4	25.6	1	-0.6	14	0	2			567	480	201	5	0	51	T	3.4	ENE	21.0	SSW	11	18	7	6	3.5	
BURBANK	213	989.0	1014.9	25.0	12.2	18.4	-0.7	33.3	30	7.8	27	3	0	10.6	69	1	-12	1	2	0	0	0	2.5	ESE	7.2*	ESE	28	14	12	5	3.9	
EUREKA U	13	1015.0		15.6	9.4	12.6	0.1	21.1	2	6.1	16	0	0			163	84	74	10	0	0	0	2.8	S	25.0	SW	12	4	6	21	7.6	41
FRESNO	99	1003.5	1015.5	25.0	10.6	17.8	-0.2	33.9	1	6.7	15	1	0	9.4	65	19	8	19	2	0	0	0	2.6	NW	10.7	NW	24	22	4	5	2.7	87
LONG BEACH	10	1013.7	1015.4	23.3	13.3	18.3	-0.6	35.6	30	9.4	21	2	0	13.3	80	1	-4	1	1	0	0	0	2.6	WNW	8.9*	WNW	21+	5	22	4	5.1	
LOS ANGELES	30	1011.7	1015.6	21.7	14.4	18.1	0.3	33.3	30	11.7	17+	1	0	13.9	80	2	-8	1	2	0	0	0	2.8	W	9.8*	W	4	7	17	7	5.2	
LOS ANGELES U	95			23.3	13.9	18.7	-0.9	33.9	30	11.1	28+	2	0			3	-7	3	2	0	0	0	2.4	W	8.0	E	5	14	12	5	4.1	70
MT SHASTA R	1080	893.6		17.8	3.9	10.7	-0.3	27.8	1	-0.6	7	0	3			247	185	91	9		0	0						15	7	9	4.2	
OAKLAND	1	1016.0	1016.4	20.0	11.7	15.9	-0.2	28.9	1	8.9	29	0	0	10.6	75	217	198	138	5	0	0	0	4.0	WNW	15.6*	NNE	12	14	7	10	4.9	
POINT ARGUELLO	112	1002.2		20.0	10.0	14.9	0.2	25.6	30	6.1	30+	0	0			12	1	11	4	0	0	0	3.4		12.5*	NW	14	13	6	12	5.2	
RED BLUFF	104	1002.2	1015.2	23.9	11.7	17.7	-0.9	33.9	1	7.2	7	1	0	8.3	62	90	56	65	7	0	0	0	4.8	SSE	30.4	SE	12	13	5	13	4.9	66
SACRAMENTO	5	1015.0	1016.0	22.8	11.1	16.8	-1.5	33.9	1	7.8	18	1	0	11.7	78	191	171	142	5	0	0	0	2.5	SW	18.8	SW	12	14	8	9	4.7	64
SACRAMENTO U	7			22.2	11.7	16.9	-1.2	33.3	1	8.9	28+	1	0			174	154	129	4		0	0										
SANDBERG R	1377	863.7		20.6	10.0	15.4	0.6	28.3	1	2.2	15	0	0			3	-10	3	1	0	0	0	5.1	NNW	17.0*	NNW	7	24	3	4	1.9	
SAN DIEGO	4	1011.5	1014.8	22.2	13.9	18.1	-0.6	31.7	30	10.0	29	0	0	12.8	75	T	-12	T	1	0	0	0	3.0	NW	8.0	NW	20	13	4	4	4.3	67
SAN FRANCISCO	2	1016.2	1017.0	19.4	11.1	15.3	-0.5	26.7	1	8.3	19+	0	0	11.1	79	185	167	95	5	0	0	0	5.0	WNW	22.4	S	13+	11	11	9	4.9	
SAN FRANCISCO U	16			19.4	12.8	16.0	-0.3	26.1	1	11.1	19+	0	0			140	117	79	7	0	0	0	3.7	W	17.0	SE	12					63
SANTA MARIA	73	1007.6	1016.3	22.2	8.9	15.4	-0.3	31.1	31	4.4	27	0	0	10.6	80	13	-3	13	2	0	0	0	2.6	WNW	13.0	NW	8+	20	7	4	3.1	
COLORADO																																
ALAMOSA	2297	774.1		18.9	-3.9	7.6	0.7	24.4	10	-9.4	29	0	24			8	-7	5	5	0	5	T						21	7	3	2.2	
COLORADO SPRINGS	1882	814.0	1018.4	20.0	4.4	12.2	2.0	28.9	14+	-1.7	25	0	1	-2.8	44	25	7	20	3	2	0	0	4.4	NE	13.0*	N	24+	17	10	4	3.3	
DENVER	1610	839.4	1016.6	21.7	2.2	11.9	0.6	30.6	10	-3.3	25	0	8	-2.8	43	1	-24	1	2	0	0	0	4.0	S	13.9	W	6	14	13	4	3.6	83
GRAND JUNCTION	1478	861.5	1016.9	20.6	6.7	13.7	0.9	27.8	4	2.2	26	0	0	-1.1	41	12	-7	7	4	1	0	0	2.5	ESE	14.8	SW	4	18	8	5	2.9	84

See footnotes at end of table

CLIMATOLOGICAL DATA

METRIC UNITS

State and Station	Elevation (ground)	Pressure		Temperature											Average relative humidity	Precipitation							Wind					No. of days (sunrise to sunset)			Sky cover, tenths (sunrise to sunset)	Possible sunshine
												No. of days							No. of days		Snow, Sleet				Fastest mile (1.6 kilometers)							
		Station ∅	Sea level	Average maximum	Average minimum	Average	Departure from normal	Highest	Date	Lowest	Date	Max. 32.2 °C or above	Min. 0 C or lower	Average dew point		Total	Departure from normal	Greatest in 24 hours	.25 mm. or more	With thunderstorms	Total	Maximum depth on ground	Average speed	Prevailing direction	Speed	Direction	Date	Clear, 0-3	Partly cloudy, 4-7	Cloudy, 8-10		
	M.	Mb.	Mb.	C.	C.	C.	C.	C.		C.				C.	%	Mm.	Mm.	Mm.			Mm.	Mm.	M.p.s.		M.p.s.							%
COLORADO																																
PUEBLO	1414	857.9	1016.2	23.3	3.9	13.7	1.1	31.1	13+	- 1.1	26	0	3	- 0.6	44	12	- 13	11	3	1	0	0	3.8	ESE	21.0	NE	31	22	6	3	2.5	89
CONNECTICUT																																
BRIDGEPORT	2	1015.1	1016.1	16.7	7.8	12.2	-0.8	24.4	12	- 1.1	30	0	3	7.2	73	78	- 8	43	9	0	T	T	5.8	NNW	16.1*	ENE	5	7	9	15	6.4	
HARTFORD	52	1009.1	1015.1	16.1	4.4	10.5	-0.8	29.4	12	- 3.9	25	0	4	5.6	76	108	27	54	10	1	T	T	3.3	N	10.7	NW	29+	5	8	18	7.2	48
NEW HAVEN	2	1014.8		16.7	7.2	11.8	-0.4	23.9	12	- 2.8	30	0	3			91	3	51	12	3	33	25	3.6		13.9	NW	7	9	6	16	6.5	54
DELAWARE																																
WILMINGTON	24	1012.8	1016.1	19.4	7.8	13.7	0.1	29.4	12	- 1.1	30+	0	5	7.8	72	38	- 36	16	8	1	8	T	3.9	WNW	13.0*	WNW	7	8	11	12	5.8	
DIST.OF COLUMBIA																																
WASHINGTON U	22			20.6	10.0	15.2	0.5	30.6	12	0.0	27+	0	2			47	- 28	41	6													
WASH NATL AP	4	1011.7	1016.4	21.1	10.6	15.7	0.7	31.7	12	- 1.1	27	0	1	8.3	64	49	- 29	43	7	1	0	0	3.2	S	11.6	W	26+	13	9	9	4.7	68
FLORIDA																																
APALACHICOLA U	4	1014.7		26.7	17.8	22.2	0.4	31.1	9	7.8	26	0	0			13	- 49	6	4	1	0	0	2.7		9.8	N	24	17	11	3	3.1	87
DAYTONA BEACH	9	1014.8	1016.8	27.8	17.8	22.8	-0.2	32.2	9	8.9	27	1	0	17.2	73	91	- 52	27	7	4	0	0	3.8	NW	13.4*	NNE	17	11	13	7	4.7	
FORT MYERS	4	1014.7		30.6	20.0	25.3	0.8	33.3	3+	12.8	27	11	0		76	138	34	65	8	3	0	0	4.3		17.0*	NE	3	19	9	3	3.5	
JACKSONVILLE	7	1016.0	1017.4	28.3	16.1	22.1	0.4	33.3	8+	5.6	27+	5	0	15.6	70	29	-102	12	7	2	0	0	3.1	NNW	17.9	W	8	14	12	5	3.8	75
KEY WEST	2	1013.9	1014.9	30.0	24.4	27.0	0.9	33.9	5	19.4	31	5	0	21.1	71	93	- 55	62	10	5	0	0	5.1	ENE	13.0	NE	27	9	16	6	5.4	62
LAKELAND U	65			28.9	18.9	23.8	0.2	33.9	5+	11.1	27	7	0			33	- 41	14	4	4	0	0	3.1					20	7	4	3.5	76
MIAMI BEACH	3			29.4	23.9	26.6	0.8	33.9	9	18.9	25	2	0			66	-105	44	9	0	0	0	5.6		12.5	NE	28	11	15	5	4.8	67
MIAMI	2	1013.7	1014.9	29.4	21.1	25.3	-0.2	32.2	6	16.7	27+	1	0	19.4	72	38	-170	9	9	7	0	0	3.9	NE	12.1*	NE	28	7	17	7	5.5	
ORLANDO	32	1011.7	1016.3	29.4	18.3	23.9	0.6	35.0	2	11.1	27	8	0	17.2	71	43	- 52	21	6	3	0	0	3.6	N	9.4*	SSE	31	16	10	5	3.8	
PENSACOLA U	4			26.7	17.8	22.0	0.7	31.1	8	7.2	26+	0	0			74	- 15	50	8	1	0	0	3.8	N	11.6	SW	1					78
TALLAHASSEE	18	1014.7	1017.5	26.3	13.3	20.8	-0.1	32.2	8+	0.6	27	2	0	14.4	72	11	- 50	8	3	3	0	0	3.6	N	9.4*	N	31+	17	8	6	3.7	
TAMPA	6	1014.8	1016.5	29.4	18.3	23.8	0.1	32.8	15+	10.6	27	8	0	17.8	73	33	- 38	13	4	2	0	0	4.8	NE	10.3*	NNW	18	18	8	5	3.6	80
WEST PALM BEACH	5	1014.3	1015.4	30.0	21.1	25.7	0.0	33.3	9	16.7	25+	6	0	19.4	71	55	-147	28	10	4	0	0	4.5	ENE	12.1*	N	17	6	17	8	5.7	
GEORGIA																																
ATHENS	245	989.0	1018.1	24.4	11.1	17.8	0.6	30.0	13	- 2.2	27	0	3	11.7	72	35	- 38	21	5	1	0	0	2.8	NW	11.2*	WNW	25	15	10	6	4.1	
ATLANTA	306	976.0	1018.0	23.3	11.1	17.1	0.0	28.3	7	- 1.1	26	0	3	9.4	64	39	- 23	20	6	3	0	0	2.8	WNW	9.8*	WSW	7	19	5	7	3.6	82
AUGUSTA	44	1010.3	1017.1	26.1	11.1	18.4	0.0	31.1	7	- 1.7	27	0	4	12.8	74	66	14	53	5	2	0	0	2.3	NW	8.9*	NW	23	14	9	8	4.3	
COLUMBUS	117	1003.4		26.7	11.7	19.2	0.7	31.7	10+	- 0.6	27+	0	2			37	- 8	30	4	2	0	0	2.6	NW	10.3	NW	31	20	3	8	3.8	
MACON	109	1003.7	1017.4	26.7	12.2	19.6	0.6	33.3	8	- 0.6	27	2	1	12.2	68	44	- 7	23	7	2	0	0	2.0	NW	8.5	W	25	16	7	8	3.9	75
ROME	194	995.3		25.0	8.3	16.6	0.4	30.6	7+	- 4.4	27+	0	5			57	- 17	41	6	4	0	0						16	7	8	3.9	
SAVANNAH	15	1014.9	1017.6	26.7	13.9	20.2	0.6	32.2	7	0.0	27	1	1	13.9	72	23	- 42	14	5	1	0	0	3.4	NW	11.2	N	18	14	9	8	4.0	75
THOMASVILLE U	86			27.8	15.0	21.4	0.4	32.2	6+	2.8	26	2	0			11	- 46	8	3	2	0	0						19	4	8	3.6	
HAWAII																																
HILO	9	1014.2	1016.3	28.3	18.9	23.6	-0.3	32.2	18	16.7	28+	1	0	18.3	76	61	-213	16	16	0	0	0	3.1	SW	11.6*	E	9	4	18	9	6.1	62
HONOLULU	2	1015.3	1015.7	29.4	21.1	25.1	-0.6	30.6	13+	17.8	26+	0	0	18.9	69	18	- 29	7	7	1	0	0	4.6	ENE	13.4	NE	6	9	11	11	5.5	58
LIHUE	35	1010.7	1016.4	28.3	20.0	24.3	-0.7	30.6	30	16.7	26	0	0	18.9	74	56	- 46	37	12	1	0	0	4.7	NE	11.2	NE	10	9	11	11	6.0	65
IDAHO																																
BOISE	865	921.6	1018.[illegible]	18.3	5.0	11.7	0.3	32.2	2	- 1.7	16	1	2	2.8	61	31	10	14	8	0	0	0	3.4	SE	11.6	NW	12+	14	7	10	4.6	72
IDAHO FALLS 42NW R	1460			17.8	- 2.2	7.8	1.1	24.4	2	-11.1	25	0	22			3	- 8	3	1													
IDAHO FALLS 46W R	1504	849.9		18.3	- 0.6	8.9	1.7	23.9	2	- 7.2	26+	0	19			7	- 9	4	3	0	0	0	2.9	SW	13.4	SW	8					
LEWISTON	431	999.9		16.1	5.6	10.8	-0.3	27.8	2	1.7	17+	0	0			41	10	17	7	0	0	0						9	4	18	6.9	
POCATELLO	1355	865.5	1019.1	18.9	2.8	10.9	1.4	26.1	2	- 3.9	25+	0	9	- 0.6	52	11	- 12	8	2	0	0	0	4.3	SSW	20.1	S	14	16	4	11	4.7	72
ILLINOIS																																
CAIRO U	96	1003.9		22.2	13.3	17.7	1.1	30.0	12	2.2	24	0	0			111	38	53	10	6	0	0	3.4	SS	11.6	SW	28	9	11	11	5.6	57
CHICAGO O HARE	201	990.3	1015.1	19.4	7.2	13.2		31.1	11	- 7.2	26	0	4	7.2	70	23		13	9	1	T	T	4.5	SSW	10.3*	NNE	28	7	15	9	5.6	
CHICAGO MIDWAY	186	992.7	1015.7	18.9	9.4	14.1	1.1	30.0	15+	- 5.0	26	0	3	7.2	67	35	- 36	17	10	2	8	T	4.8	SW	13.0	S	15	7	14	10	5.7	53
MOLINE	177	993.3	1015.7	18.9	7.2	12.9	0.5	31.1	11	- 7.2	26	0	6	8.9	77	105	43	38	11	6	5	T	4.2	SSW	12.5	NW	22	9	11	11	5.9	51
PEORIA	199	994.0	1016.5	18.3	7.2	12.7	-0.2	30.0	11	- 7.2	26	0	6	8.3	78	90	26	42	6	3	T	T	4.6	S	14.3	NW	22	9	14	8	5.3	61
ROCKFORD	222	988.0	1015.4	18.3	7.2	12.6	1.2	29.4	10	- 7.8	26	0	6	7.2	73	24	- 44	7	9	2	3	T	5.0	SSW	12.1*	SW	10	10	12	9	5.4	
SPRINGFIELD	179	992.4	1015.6	20.6	8.3	14.7	0.9	32.2	11	- 5.6	26	1	4	8.9	71	144	70	78	8	3	T	T	4.5	SSW	20.1	W	12	11	11	9	5.2	60
INDIANA																																
EVANSVILLE	116	1001.1	1017.0	21.1	8.9	15.1	0.3	30.0	12+	- 5.0	26	0	4	10.0	74	70	5	26	12	3	0	0	3.0	NW	13.9	SW	15	10	11	10	5.2	67
FORT WAYNE	241	984.9	1016.[illegible]	18.9	7.2	13.0	1.1	28.3	15+	- 4.4	27+	0	4	7.8	72	55	- 16	15	11	3	15	T	4.5	W	17.4	SW	7	4	10	17	6.7	50

See footnotes at end of table

CLIMATOLOGICAL DATA

METRIC UNITS

State and Station	Elevation (ground)	Pressure		Temperature								No. of days			Average relative humidity	Precipitation							Wind					No. of days (sunrise to sunset)			Sky cover, tenths (sunrise to sunset)	Possible sunshine
		Station Ø	Sea level	Average maximum	Average minimum	Average	Departure from normal	Highest	Date	Lowest	Date	Max 32.2 °C or above	Min. 0 C or lower	Average dew point		Total	Departure from normal	Greatest in 24 hours	No. of days: .25 mm or more	No. of days: With thunderstorms	Snow, Sleet: Total	Snow, Sleet: Maximum depth on ground	Average speed	Prevailing direction	Fastest mile (1 6 kilometers): Speed	Fastest mile (1 6 kilometers): Direction	Fastest mile (1 6 kilometers): Date	Clear, 0-3	Partly cloudy, 4-7	Cloudy 8-10		
	M.	Mb.	Mb.	C.	C.	C.	C.	C.		C.				C.	%	Mm.	Mm.	Mm.			Mm.	Mm.	M.p.s.		M.p.s							%
INDIANA																																
INDIANAPOLIS	242	986.3	1016.5	19.4	8.3	13.7	0.7	29.4	12	-6.7	26	0	4	8.9	76	72	5	18	9	3	30	T	3.5	SW	33.5*	SW	7	9	12	10	5.7	74
SOUTH BEND	234	987.0	1015.2	17.2	7.8	12.4	0.6	28.9	15	-3.3	26	0	5	8.3	78	112	31	30	14	4	218	102	4.5	SSW	13.0*	NW	25	5	8	18	7.2	
IOWA																																
BURLINGTON	212	990.4	1016.1	18.9	8.3	13.7	0.7	31.1	11	-5.6	26	0	5	8.9	76	139	70	65	8	4	T	T	4.5	SSW	13.9	NW	23	10	11	10	5.5	64
DES MOINES	289	984.6	1016.1	18.9	8.9	14.0	1.4	31.1	10	-1.7	26+	0	4	8.3	71	84	29	30	9	3	36	T	3.4	SSE	11.2	NW	22	9	10	12	5.6	57
DUBUQUE	325	990.0		16.7	6.1	11.6	1.2	28.9	10	-8.9	26	0	7			75	5	27	11	5	15	25			12.1*	SW	10	8	10	13	6.1	
SIOUX CITY	334	974.5	1016.0	19.4	6.7	12.8	1.1	30.6	11+	-4.4	25	0	6	7.2	75	27	-9	17	7	2	38	25	3.7	NNW	15.2	NW	15	10	9	12	5.4	58
WATERLOO	265	983.6	1015.7	17.8	6.1	11.7	0.5	29.4	10	-6.7	26	0	7	7.8	78	77	23	24	10	3	8	T	4.2	NW	14.3*	NNW	30	9	8	14	6.0	
KANSAS																																
CONCORDIA	448	965.6	1015.5	21.1	8.9	15.0	0.6	29.4	14+	-3.9	25	0	3	8.3	70	21	-22	15	5	1	0	0	5.1	S	13.9	NW	24	16	10	5	4.3	68
DODGE CITY	791	928.0	1016.0	21.7	8.3	15.2	0.6	31.1	10	0.0	29	0	1	6.7	64	10	-26	5	4	1	0	0	5.0	SSW	17.9	N	15	15	9	7	3.8	74
GOODLAND	1111	889.4	1016.6	22.2	3.3	12.7	1.0	32.2	13	-2.2	25+	1	6	2.2	59	17	-2	16	2	1	0	0	4.9	NNW	13.9*	NNW	31	19	9	3	2.9	
TOPEKA	267	980.1	1015.7	21.7	9.4	15.6	1.0	30.0	11	-2.2	25	0	3	10.6	76	35	-25	30	5	0	T	T	4.9	S	18.8	NW	24	12	7	12	4.8	59
WICHITA	403	966.7	1015.4	22.8	11.1	16.8	1.3	31.7	13	-0.6	25	0	1	10.6	71	34	-27	12	5	4	0	0	5.1	S	14.8	S	15	16	6	9	4.2	65
KENTUCKY																																
COVINGTON	265	984.4	1016.5	20.0	6.7	13.4	-0.5	29.4	15	-8.9	27	0	6	6.7	67	73	15	29	10	4	43	T	2.9	SSW	10.3*	WNW	25+	8	10	13	5.9	
LEXINGTON	298	981.5	1017.4	20.6	9.4	14.9	0.4	28.3	16+	-5.0	26	0	4	9.4	73	113	55	82	11	2	T	T	3.2	SW	9.8*	NW	25	10	13	8	4.9	
LOUISVILLE	144	999.1	1016.9	21.1	9.4	15.2	1.1	28.9	16+	-3.9	26	0	5	10.0	74	119	62	71	11	5	T	T	3.1	SE	11.6	NW	25	11	10	10	5.4	53
LOUISIANA																																
ALEXANDRIA	28	1013.0	1017.7	27.2	12.8	20.2		33.3	7	1.7	26	6	0	15.0	79	31		19	6	5	0	0	1.9	SSW				16	7	8	4.5	
BATON ROUGE	20	1014.3	1016.1	28.3	16.1	22.3	1.9	33.3	8+	6.1	26	6	0	16.7	75	133	71	86	7	4	0	0	2.7	ESE				13	13	5	4.1	
BURRWOOD R	2		1017.2											19.4	75	0		62	8				5.1	SE								
LAKE CHARLES	4	1015.9	1017.3	27.8	16.7	22.3	0.9	33.3	8	6.7	26	2	0	17.8	81	69	-9	29	8	6	0	0	4.3	NNE	10.7	SSW	20	13	13	5	4.4	
NEW ORLEANS	1	1014.9	1017.2	27.8	16.1	22.0	0.9	33.3	7	6.1	25	2	0	16.7	75	84	11	29	6	4	0	0	2.9	ENE	9.8*	ENE	24	16	8	7	3.9	
NEW ORLEANS AUDUBON	2	1010.4		28.3	18.3	23.2		32.2	9+	11.1	26+	2	0			45		15	9	4	0	0	1.7		6.3	NE	23	14	11	6	4.3	67
SHREVEPORT	77	1011.6	1017.7	27.2	15.6	21.5	1.9	33.3	10+	4.4	26	7	0	15.0	70	32	-39	8	6	3	0	0	4.0	S				11	11	9	5.1	64
MAINE																																
CARIBOU	190	989.9	1013.4	10.0	1.7	5.7	-0.4	23.9	3	-9.4	30	0	12	2.2	80	85	-1	18	14	1	279	152	4.9	W	21.5■	W	13	2	7	22	8.1	
PORTLAND	19	1010.4	1014.5	14.4	2.8	8.7	-0.6	23.3	3	-7.2	30	0	8	4.4	76	312	230	196	12	0	91	25	4.4	W	15.2	E	6	6	9	16	7.0	48
MARYLAND																																
BALTIMORE	45	1011.5	1016.3	21.1	7.8	14.3	0.4	31.1	12	-2.2	25	0	3	7.8	68	75	-6	70	5	0	0	0	3.8	WNW	13.9	NW	26	11	13	7	4.7	65
BALTIMORE U	4			21.1	11.7	16.4	0.8	32.2	12	0.6	26	1	0			70	-12	61	8													
FREDERICK	90			20.6	6.1	13.3	0.2	31.7	12	-3.9	25	0	6			49	-30	24	6		0	0										
MASSACHUSETTS																																
BLUE HILL OBS R	192	990.1	1013.6	15.6	6.1	10.7	-0.8	25.0	3	-2.8	27	0	5		75	275	180	153	11		76	76	6.3	NW	20.1	SSW	28					55
BOSTON	5	1009.5	1014.3	16.1	8.3	12.3	-0.5	26.1	12+	-0.6	30	0	1	5.0	66	220	141	108	13	1	T	T	6.4	WNW	15.2	S	28+	6	9	16	6.9	59
NANTUCKET	13	1014.0	1014.6	15.6	8.3	12.0	-0.1	20.6	4	-0.6	30	0	1	7.8	77	189	95	76	11	4	T	T	5.8	WNW	18.8	SW	26	7	8	16	6.5	60
PITTSFIELD	357			14.4	2.8	8.5	-0.4	27.2	12	-3.9	30+	0	8			87	4	21	13		13	T										
WORCESTER	301	977.8	1014.6	14.4	5.0	9.6	-0.7	25.0	12	-4.4	27	0	6	4.4	73	217	129	89	12	2	119	127	3.7	W	10.3■	N	7	7	8	16	6.7	
MICHIGAN																																
ALPENA	210	988.8		14.4	2.8	8.5	-0.3	26.7	15	-4.4	29+	0	13			28	-33	6	13	1	28	25	3.0	W$	12.1	W	16	3	10	18	7.5	46
DETROIT	189	988.4	1015.1	17.2	7.8	12.6	0.4	28.3	11	-3.3	26	0	4	7.8	74	45	-22	12	9	1	T	T	4.4	WNW	15.2	NW	16	4	12	15	6.9	48
DETROIT M WAYNE CO	193	991.1	1015.3	18.3	6.1	12.1	0.4	30.0	11	-5.6	27	0	6	7.8	77	58	-7	23	9	0	T	T	3.6	SW				7	9	15	6.5	
DETROIT WILLOW RUN	217	986.7	1015.2	17.8	7.2	12.4	0.3	29.4	11	-3.9	27	0	5	7.8	76	58	-7	23	8	0	T	T	5.1	SSW	13.4*	WSW	28	6	9	16	6.8	
ESCANABA U	181	991.9		12.8	5.6	9.2	0.5	18.9	2	-3.9	26+	0	6			33	-21	17	14	1	T	T	4.2		17.4	NW	25	6	7	18	7.3	33
FLINT	233	987.7	1015.6	16.7	5.6	10.9	0.4	27.8	11	-4.4	27+	0	5	7.2	79	74	14	18	8	1	20	T	3.9	SW	9.4*	SW	16	5	9	17	7.0	
GRAND RAPIDS	208		1015.3	17.2	6.7	11.8	1.2	27.8	15	-4.4	26	0	4	6.7	74	42	-25	16	10	2	66	51	4.2	SSW	13.0	W	16	3	11	17	7.4	36
LANSING	260	982.8	1015.0	17.2	5.6	11.3	0.6	27.8	11	-5.0	26	0	6	6.7	75	47	-16	19	8	2	25	25	5.4	SSW	16.5	W	16	4	9	18	7.3	69
MARQUETTE U	206	987.1		12.8	5.6	9.3	0.4	26.1	15	-4.4	25	0	5			49	-11	15	11	1	114	76	3.4	W$	14.3	NW	25	2	8	21	8.1	38
MUSKEGON	191	991.7	1014.9	16.1	6.7	11.6	1.0	26.1	15	-2.8	29	0	6	7.8	79	74	9	25	15	3	94	T	4.6	NNW	11.2*	SSW	16	2	13	16	7.3	
SAULT STE MARIE	220	991.2	1014.1	12.2	4.4	8.4	1.0	20.6	16+	-4.4	29	0	8	5.0	80	47	-24	17	18	3	13	T	3.8	E	14.3*	WNW	16	2	7	22	8.3	34
MINNESOTA																																
DULUTH	435	973.6	1015.5	12.2	2.2	7.3	0.6	22.8	15	-9.4	26+	0	11	1.7	71	22	-33	8	10	1	18	T	4.9	E	18.8	W	16	1	10	20	7.9	40
INTERNATIONAL FALLS	359	973.3	1015.0	13.3	1.1	7.1	1.3	23.9	15	-10.6	25	0	13	2.8	75	6	-38	2	4	0	T	T	2.9	NW	12.5*	NW	24+	2	9	20	7.8	

See footnotes at end of table

CLIMATOLOGICAL DATA

METRIC UNITS

State and Station	Elevation (ground)	Pressure		Temperature											Average relative humidity	Precipitation							Wind					No. of days (sunrise to sunset)			Sky cover, tenths (sunrise to sunset)	Possible sunshine
		Station Ø	Sea level	Average maximum	Average minimum	Average	Departure from normal	Highest	Date	Lowest	Date	No. of days		Average dew point		Total	Departure from normal	Greatest in 24 hours	No. of days		Snow, Sleet		Average speed	Prevailing direction	Fastest mile (1.6 kilometers)			Clear, 0-3	Partly cloudy, 4-7	Cloudy, 8-10		
												Max. 32.2 °C or above	Min. 0 °C or lower						.25 mm. or more	With thunderstorms	Total	Maximum depth on ground			Speed	Direction	Date					
	M.	Mb.	Mb.	C.	C.	C.	C.	C.		C.				C.	%	Mm.	Mm.	Mm.			Mm.	Mm.	M.p.s.		M.p.s.							%
MINNESOTA																																
MINNEAPOLIS	555	981.8	1015.6	16.1	3.9	10.1	1.1	28.3	11	- 8.9	26	0	7	6.1	76	43	3	19	8	0	T	T	4.2	NW	14.8	NW	24	7	12	12	6.1	52
ROCHESTER	395	967.6	1015.9	16.1	5.0	10.5	0.8	27.2	11	- 6.7	26	0	7	6.1	77	50	6	19	9	3	5	T	5.2	NW				9	10	12	5.9	
ST CLOUD	315	977.6		16.1	3.3	9.8	1.3	26.7	15	- 6.1	26+	0	9			5	- 37	4	4	0	T	T						7	9	15	6.6	
MISSISSIPPI																																
JACKSON	93	1005.4	1017.5	27.2	13.3	20.2	1.0	33.3	7	1.7	26	7	0	13.3	69	43	- 6	20	4	2	0	0	2.7	SSE	9.8	NW	16	14	9	8	4.7	72
MERIDIAN	89	1004.2	1018.2	26.7	11.7	19.2	0.6	32.8	6	- 0.6	26	2	1	13.3	76	87	31	54	6	5	0	0	2.1	S	11.2*	NW	8	12	12	7	4.4	
VICKSBURG U	71	1008.1		25.6	15.6	20.5	0.8	31.7	14+	5.6	26	0	0			64	12	32	4	3	0	0	3.2		8.0	N	23+	12	10	9	4.8	76
MISSOURI																																
COLUMBIA	237	986.7	1015.3	21.1	10.0	15.5	0.7	31.7	11	- 1.7	26	0	3	10.0	74	63	- 16	15	7	5	0	0	4.1	S	13.0	N	30	16	3	12	5.1	60
KANSAS CITY	226	980.5	1015.4	21.7	11.1	16.6	1.2	31.7	11	0.6	25	0	0	10.0	69	48	- 25	23	9	3	0	0	2.7	SSW	17.9	NW	24	15	5	11	5.1	60
ST JOSEPH	247	980.8		21.1	8.9	14.9	0.8	30.6	11	- 1.1	25	0	3			42	- 13	18	6	3	0	0	4.0	NNW	15.6*	NNW	15	13	7	11	4.8	
ST LOUIS	163	995.8	1016.4	21.7	10.6	16.1	1.2	32.2	11	- 2.2	26	1	2	9.4	69	69	- 4	24	7	3	0	0	3.3	SW	12.1	NW	23	10	11	10	5.5	49
ST LOUIS RFC	142			21.7	11.7	16.7	0.7	32.2	11	0.6	26	1	0			69	- 1	25	10		0	0										
SPRINGFIELD	386	969.1	1016.6	21.7	9.4	15.3	-0.1	30.6	11	- 1.7	26+	0	5	11.7	83	30	- 65	13	12	5	0	0	4.0	SSE	17.0	NW	24	13	5	13	5.0	65
MONTANA																																
BILLINGS	1087	891.6	1015.8	18.9	5.0	12.1	2.1	27.2	13	- 2.8	25	0	1	0.6	51	7	- 20	5	5	0	0	0	4.7	SW	16.5	NW	21	7	14	10	6.0	63
GLASGOW	694	940.4		15.6	3.9	9.5	2.1	23.9	4	- 3.9	25	0	6		68	29	13	18	9	0	51	25						9	4	18	6.6	
GREAT FALLS	1116	888.6	1016.7	16.7	3.9	10.3	1.1	26.1	2+	- 1.7	25+	0	3	0.0	53	30	11	14	5	0	T	0	5.3	SW	17.0	SW	21	7	5	19	7.0	53
HAVRE	787	926.2		16.7	2.2	9.4	1.4	28.3	2	- 5.0	25	0	9			28	8	19	8	0	0	0	3.6	SW	15.6	W	8	7	8	16	6.6	54
HELENA	1187	874.7	1018.2	15.6	2.2	8.9	1.4	23.3	2	- 3.3	26+	0	8	0.6	60	24	7	14	4	0	0	0	3.2	WNW	11.2	W	21+	7	9	15	6.5	61
KALISPELL	904	914.0		12.2	0.0	6.1	0.1	24.4	2	- 4.4	5	0	18			32	0	14	9	0	0	0	2.1					5	8	18	7.3	
MISSOULA	972	904.5	1020.5	12.2	0.0	6.1	-0.6	23.3	2	- 3.9	29+	0	18	1.7	80	34	9	12	9	0	T	T	2.3	NW	11.6	N	4	5	11	15	7.2	54
NEBRASKA																																
GRAND ISLAND	561	949.7		18.9	4.4	11.8	-0.6	30.6	11	- 8.3	25	0	7	6.1	73	34	10	22	7	1	0	0	4.2	S				14	9	8	4.8	
LINCOLN U	351			20.0	8.3	13.9	0.2	31.1	11	- 3.3	25	0	1			54	14	31	8	2	0	0	3.9	S$	13.0	NE	20+	9	12	10	5.4	63
NORFOLK	471	959.9		18.9	5.0	12.1	0.4	30.6	10	- 7.2	25	0	8			17	- 13	9	6	1	T	T						10	12	9	5.1	
NORTH PLATTE	847	916.5	1016.0	21.1	2.8	11.8	1.2	31.1	10	- 9.4	25	0	10	2.2	59	11	- 12	10	3	0	0	0	4.4	N	15.2	N	24	13	12	6	4.5	75
OMAHA	298	975.6	1015.8	19.4	8.3	13.9	0.7	29.4	11	- 2.8	25	0	4	8.3	73	44	0	23	10	2	T	T	4.6	SSE	14.3	NW	15	8	15	8	5.4	62
OMAHA N OMAHA AP	403	967.6		18.3	7.8	13.2	1.0	29.4	11	- 5.0	25	0	4			45	3	18	8	1	T	T						8	13	10	5.7	
SCOTTSBLUFF	1204	880.4	1017.0	20.0	2.2	11.3	1.1	30.0	10	- 4.4	25	0	10	1.1	58	28	11	28	3	0	0	0	4.8	NW	16.5*	NW	31	13	6	12	5.2	
VALENTINE	789	924.7		20.0	1.7	10.9	1.3	31.1	14+	-10.6	25	0	14			25	3	25	3	1	0	0	4.4		15.6	N	31	13	9	9	4.5	75
NEVADA																																
ELKO	1547	846.5	1018.0	21.7	- 1.7	9.9	1.7	28.3	2	- 8.3	26	0	23	- 5.0	40	3	- 16	3	1	0	T	T	3.3	NSW	14.3*	SSW	13+	19	5	7	3.2	
ELY	1907	811.1	1017.7	18.9	- 0.6	9.3	1.6	26.1	2	- 6.7	15	0	21	- 3.9	46	27	8	23	3	1	T	T	5.0	SSW	18.8	NE	14+	20	6	5	3.3	94
LAS VEGAS	659	948.4	1014.1	27.8	12.8	20.4	0.9	35.0	3	8.9	19	4	0	1.1	32	11	6	11	1	0	0	0	4.3	SW	17.9	SW	14	23	3	5	2.3	90
RENO	1342	864.3	1018.6	21.7	- 0.6	10.7	0.6	29.4	2+	- 5.6	7	0	23	0.6	56	39	26	39	2	0	T	T	2.8	S	22.4	S	13	17	7	7	3.7	82
WINNEMUCCA	1310	869.5		21.1	- 0.6	10.4	1.7	30.0	2	- 6.7	25+	0	21		43	12	- 8	11	4	0	T	T	3.8	S	22.8	W	10	17	3	11	4.2	97
NEW HAMPSHIRE																																
CONCORD	103	1003.7	1014.6	15.0	2.8	8.9	-0.3	26.7	3	- 5.6	30	0	11	3.9	73	223	155	108	11	1	T	T	2.0	NW	9.4	NW	29+	5	10	16	6.9	48
MT WASHINGTON OBS	1909	802.4		1.7	- 5.0	- 1.6	-1.0	11.7	4	-15.0	27	0	27		91	338	181	132	17	1	627	102	15.5	W	46.5Y	W	27	3	6	22	8.1	29
NEW JERSEY																																
ATLANTIC CITY	18	1012.7	1016.2	20.0	8.3	13.9	-0.1	30.0	12	- 1.1	25	0	3	8.3	71	52	- 29	21	9	2	T	T	3.7	N	10.3*	W	26	6	13	12	5.7	55
ATLANTIC CITY	3			18.3	10.0	14.2	-0.6	28.9	12	0.6	27+	0	0			60	- 26	35	12				5.6		17.9*	N	9					
NEWARK	3	1014.4	1015.8	18.9	9.4	14.1	0.4	30.0	12	0.0	27	0	1	7.2	66	94	15	59	13	2	T	T	3.8	NW	11.2*	NNW	29	7	10	14	6.1	
TRENTON U	17	1008.1	1014.8	18.9	8.9	13.8	0.1	29.4	12	0.0	26+	0	2			41	- 31	18	8	1	41	51	3.4	W	12.1	NW	7	8	12	11	5.8	58
NEW MEXICO																																
ALBUQUERQUE	1618	851.4	1016.4	21.7	7.2	14.5	-0.2	27.8	14	2.8	29	0	0	3.9	55	19	0	6	8	3	0	0	3.1	ESE	21.9	SW	16	19	9	3	2.5	84
CLAYTON	1515	849.2		23.3	5.6	14.4	1.4	31.7	11	- 2.2	25	0	4			T	- 25	T	1	0	0	0						20	8	3	2.5	
RATON	1944	807.8		21.7	2.2	11.9	1.3	30.0	14	- 2.8	31+	0	11			T	- 26	T	0	0	0	0						22	7	2	2.6	
ROSWELL	1103	894.5		23.9	5.6	14.7	-0.1	31.7	15+	- 0.6	31+	0	4			13	- 14	5	8	1	0	0	3.4		11.6	NW	31	18	6	7	3.8	
SILVER CITY	1638	837.8		23.9	7.8	15.8		27.8	3	2.2	30+	0	0			18		7	7	6	0	0						22	5	4	2.4	
NEW YORK																																
ALBANY	84	1011.4	1015.2	15.0	5.0	10.1	-0.3	26.7	12	- 3.3	25	0	6	4.4	71	91	21	25	11	1	T	T	3.4	S	12.1	NW	17+	4	9	18	7.5	52
BINGHAMTON	485	955.4	1014.8	13.9	5.6	9.6	-0.1	24.4	16	- 3.9	27+	0	6	6.1	81	182	103	89	15	2	18	T	4.0	WSW	12.1	SW	12	2	9	20	7.8	40

See footnotes at end of table

CLIMATOLOGICAL DATA

METRIC UNITS

State and Station	Elevation (ground)	Pressure		Temperature								No. of days			Average relative humidity	Precipitation			No of days		Snow, Sleet		Wind		Fastest mile (1.6 kilometers)			No. of days (sunrise to sunset)			Sky cover, tenths (sunrise to sunset)	Possible sunshine
		Station Ø	Sea level	Average maximum	Average minimum	Average	Departure from normal	Highest	Date	Lowest	Date	Max. 32.2 °C or above	Min. 0 C or lower	Average dew point		Total	Departure from normal	Greatest in 24 hours	.25 mm or more	With thunderstorms	Total	Maximum depth on ground	Average speed	Prevailing direction	Speed	Direction	Date	Clear, 0-3	Partly cloudy, 4-7	Cloudy, 8-10		
	M.	Mb.	Mb.	C.	C.	C.	C.	C.		C.				C.	%	Mm.	Mm.	Mm.			Mm.	Mm.	M.p.s.		M.p.s.							%
NEW YORK																																
BUFFALO	215	987.0	1015.2	15.6	6.1	10.8	0.4	27.2	16	-3.3	29	0	5	6.7	77	48	-28	17	12	3	51	51	4.2	WSW	13.9	SW	27	3	6	22	8.0	42
NEW YORK U	40	1003.7	1015.8	18.9	9.4	14.1	-0.5	29.4	12	1.1	27+	0	0	7.2	69	80	-	36	13	2	T	0	3.5	W$	10.3	W	29+	11	8	12	5.6	50
NEW YORK LA GUARDIA	6	1013.6	1015.5	17.8	10.6	14.2	-0.6	28.9	12	1.1	26	0	0	7.2	66	60	-25	23	13	1	30	T	4.4	NW	10.7	WNW	7+	9	10	12	6.0	
ROCHESTER	166	995.7	1015.2	16.1	6.1	11.0	0.0	28.3	16	-2.8	25	0	5	6.7	77	50	-16	15	14	2	20	T	4.3	WSW	17.0	SW	27	4	6	21	7.7	40
SCHENECTADY	66			15.0	5.6	10.3	0.1	25.0	12	-1.1	30+	0	4			90	16	23	12	1	T	T						14	5	12	5.1	
SYRACUSE	127	992.5	1014.7	15.0	6.1	10.7	-0.3	27.8	16	-2.8	25	0	5	5.6	74	84	3	24	17	1	71	51	5.3	E	24.1	W	23	3	7	21	7.8	37
NORTH CAROLINA																																
ASHEVILLE U	671	938.7		21.1	8.3	14.6	0.4	28.9	8	-5.0	27	0	5			61	-2	31	8	2	0	0	2.9	NW	11.6	NW	25	18	8	5	3.7	72
CAPE HATTERAS R	2	1014.9	1015.6	22.8	14.4	18.7	0.1	28.9	8	0.6	27	0	0	14.4	75	88	-20	27	8	2	0	0	4.7	NNE	15.6	NNE	18	14	5	12	5.1	
CHARLOTTE	224	988.9	1017.1	23.3	10.6	17.0	0.3	30.6	8	-4.4	27	0	3	10.0	67	40	-35	28	4	2	0	0	2.9	SW	10.3	NE	19	18	7	6	3.5	72
GREENSBORO	272	985.3	1017.3	22.8	9.4	16.1	0.9	30.6	8	-6.7	27	0	3	8.9	68	17	-52	8	5	1	0	0	3.3	SW	11.2	NW	23	16	8	7	4.0	71
RALEIGH	132	1002.7	1016.6	23.3	10.0	16.6	0.7	30.6	11+	-7.2	27	0	3	10.6	71	25	-44	17	4	1	0	0	3.1	SSW	9.8*	NE	19	13	9	9	4.8	58
WILMINGTON	9	1013.8	1016.7	25.0	12.8	18.8	0.2	31.7	8	-2.8	27	0	3	13.3	74	19	-57	12	6	1	0	0	4.2	N	13.0	N	19	15	6	10	4.6	69
WINSTON SALEM	295	981.9	1017.3	22.8	10.6	16.7	0.9	30.6	8	-2.8	27	0	2	8.3	63	15	-63	6	5	0	T	T	3.7	NE	12.1*	NE	18	18	6	7	3.7	
NORTH DAKOTA																																
BISMARCK	502	954.9	1015.7	18.3	1.1	9.7	1.8	30.0	14	-11.7	25	0	10	2.2	64	8	-14	5	5	0	T	T	3.3	WNW	15.2	NW	15	6	10	15	6.3	60
DEVILS LAKE U	448	961.3		15.6	2.2	8.7	1.8	24.4	14	-8.3	25	0	9			11	-16	5	7	0	T	T	3.4	S$	14.8	NW	15	9	8	14	5.9	61
FARGO	274	980.4	1015.2	17.8	3.9	10.6	2.6	30.0	14	-7.2	25	0	8	5.0	74	22	-6	15	4	0	5	T	4.3	SSE	17.9	NW	15	4	10	17	7.0	65
WILLISTON U	579	947.2		16.1	2.2	9.3	1.5	24.4	4	-7.2	25	0	10			53	34	36	6	0	127	25	4.2	SW$	25.5	N	15	7	10	14	6.6	55
OHIO																																
AKRON	369	977.9	1016.2	17.2	6.7	12.0	0.7	27.2	16+	-5.0	27	0	5	6.7	73	69	6	20	14	3	46	T	3.9	SW	10.3*	WNW	23	5	7	19	7.0	
CINCINNATI OBS	232			21.1	9.4	15.1	0.7	30.0	15	-5.0	27+	0	4			94	37	36	11	4	T	T	2.5		11.6	W	25					54
CINCINNATI U	169	993.3		21.7	10.6	15.9	0.9	31.1	12	-3.3	27	0	3			87	31	35	10	4	T	T										
CLEVELAND	237	987.6	1015.6	17.8	7.2	12.6	1.6	28.3	16+	-5.0	27	0	4	7.8	75	91	30	21	13	4	203	152	4.2	SSW	14.8	SW	28	4	10	17	7.2	44
COLUMBUS	247	986.7	1016.8	18.3	6.7	12.4	-0.4	27.8	16+	-6.7	27	0	6	7.8	75	52	-1	25	9	2	33	25	3.5	S	12.5	W	25	4	9	18	7.0	45
COLUMBUS U	221			18.9	9.4	14.0	0.3	28.3	11	-5.0	26	0	3			53	5	29	10	3	30	T										
DAYTON	304	983.7	1016.5	18.9	7.8	13.4	0.3	28.3	15+	-6.1	26	0	4	8.3	73	57	0	28	12	4	51	25	4.2	S	14.3	SW	25	4	15	12	6.4	43
MANSFIELD	395			16.7	6.7	11.7	0.3	26.7	16	-6.1	26	0	5			50	-7	24	9	3	15	25						4	9	18	7.1	
SANDUSKY U	185	993.7		17.8	8.3	13.2	0.1	30.0	11	-3.9	27	0	4			65	12	28	10	3	T	T	4.0		19.7	NW	22	6	12	13	6.1	63
TOLEDO	206	990.1	1015.4	18.3	6.1	12.3	1.2	30.0	11	-5.0	27	0	6	7.8	76	53	-8	20	10	2	5	T	3.7	WSW	13.0	SW	28+	4	11	16	6.8	58
YOUNGSTOWN	359	973.1	1016.0	16.7	6.1	11.3	-0.1	27.2	11	-3.9	27+	0	5	6.7	74	92	23	16	16	4	188	76	4.2	SSW	12.1*	WNW	23	5	9	17	7.0	
OKLAHOMA																																
OKLAHOMA CITY	390	973.1	1016.4	23.9	12.2	18.2	1.3	33.3	15+	2.8	25	4	0	12.2	71	62	-2	21	7	5	0	0	5.8	SSE	16.5	SW	15	15	8	8	4.3	65
TULSA	206	991.6	1016.0	24.4	12.2	18.3	0.6	32.2	11	1.1	25	1	0	12.2	74	100	15	30	9	5	0	0	4.8	SSE	12.5	SE	15	14	9	8	4.8	63
OREGON																																
ASTORIA	2	1015.4	1016.3	16.1	7.8	11.9	0.3	22.2	28	2.8	17	0	0	10.0	87	188	-10	78	16	2	0	0	3.8	SSE	19.7*	SSW	12	3	6	22	7.7	
BURNS U	1265	874.9		17.2	0.6	9.0	-0.1	26.7	2	-5.6	7	0	14			93	72	36	9		T	T						14	5	12	4.9	
EUGENE	110	1003.8		16.1	6.7	11.4	-0.3	24.4	1	0.0	17	0	1			161	64	43	10	0	0	0	2.8		28.2*	S	12	0	16	15	7.8	
MEACHAM	1234			12.8	3.3	8.0	0.1	22.2	2	-1.7	16+	0	6			99	27	32	11	0	T	T						13	4	14	5.7	
MEDFORD	396	970.3	1018.4	17.2	3.9	10.7	-1.5	27.2	1	-1.7	17	0	4	6.7	85	159	110	65	9	0	0	0	1.3	WNW	17.9*	SSW	12+	6	10	15	6.7	
PENDLETON	452	964.2	1018.3	17.2	6.1	11.5	-0.3	23.3	2+	2.2	7	0	0	5.6	69	41	11	18	8	0	0	0	3.4	SSE	18.3*	WSW	12+	11	5	15	6.0	
PORTLAND	6	1011.3	1017.1	17.8	8.3	12.8	0.5	23.9	2+	3.3	17	0	0	8.3	78	84	-8	23	12	1	0	0	3.0	ESE	39.3	S	12	6	7	18	7.1	36
PORTLAND U	9			17.8	9.4	13.6	-0.1	25.0	1	5.6	16	0	0			106	7	32	12		0	0										
ROSEBURG	154	998.8		17.2	6.7	11.8	-0.6	29.4	1	1.1	16+	0	0			141	64	29	15	0	0	0	1.6		22.4	S	12	0	13	18	8.0	34
SALEM	59	1009.5	1017.6	16.7	6.1	11.4	-0.8	23.9	1	1.1	16	0	0	8.3	85	116	16	26	11	0	0	0	3.2	S	25.9*	S	12	4	8	19	7.5	
SEXTON SUMMIT R	1169	884.5		15.0	6.7	10.6	0.2	23.9	1	1.1	14	0	0			248	162	64	9	0	0	0	5.5	S				14	6	11	4.7	
PACIFIC AREA																																
CANTON ISLAND	2	1010.0	1010.5	31.7	25.6	28.4	-0.3	32.2	6	23.9	29	1	0	21.7	71	6	-22	3	5	0	0	0	6.1	ENE	10.7	NNE	21	15	12	4	4.4	
ENIWETOK	5	1009.2	1009.9	31.1	25.6	28.2	-0.1	32.8	9	22.8	10	8	0			217	-14	52	24	0	0	0	4.3									
TAGUAC GUAM R	110			29.4	23.3	26.3	0.1	30.6	21+	20.0	11	0	0			380	47	114	23	2	0	0	2.8		12.5	SW	2					41
KOROR R	29	1006.1	1008.6	31.7	25.0	28.1	0.8	32.8	14+	23.3	25+	9	0	24.4	84	231	-102	75	15	3	0	0	2.7	SW	11.2	SW	20	0	1	30	9.7	57
PONAPE R	37	1004.7	1009.3	31.1	22.2	26.7	0.2	32.2	15+	21.1	6	5	0	23.9	87	472	66	121	24	1	0	0	1.1	ESE	7.2	E	21+	0	4	27	9.0	52
TRUK MOEN ISLAND	2	1009.5	1009.8	30.6	23.9	27.4	0.4	31.7	27+	22.8	27+	0	0	23.9	84	248	-93	120	20	1	0	0	1.7	SSE	9.8	S	22	1	9	21	8.3	35
WAKE ISLAND	3	1012.8	1013.3	29.4	24.4	27.0	-0.6	31.7	11	20.6	5	0	0			297	163	81	19	2	0	0	7.2		16.5*	E	18	3	8	20	7.8	
YAP R	16	1007.1	1008.1	31.1	24.4	27.8	0.2	32.8	18+	23.3	30+	8	0	24.4	85	245	-90	76	21	4	0	0	3.3	SW	16.5	SW	23	0	0	31	10.0	67

See footnotes at end of table

CLIMATOLOGICAL DATA

METRIC UNITS

State and Station	Elevation (ground)	Pressure		Temperature								No. of days			Average relative humidity	Precipitation			No. of days		Snow, Sleet		Wind		Fastest mile (1.6 kilometers)			No. of days (sunrise to sunset)			Sky cover, tenths (sunrise to sunset)	Possible sunshine
		Station Ø	Sea level	Average maximum	Average minimum	Average	Departure from normal	Highest	Date	Lowest	Date	Max. 32.2 °C or above	Min. 0 °C or lower	Average dew point		Total	Departure from normal	Greatest in 24 hours	.25 mm. or more	With thunderstorms	Total	Maximum depth on ground	Average speed	Prevailing direction	Speed	Direction	Date	Clear, 0-3	Partly cloudy, 4-7	Cloudy, 8-10		
	M.	Mb.	Mb.	C.	°C.	C.	C.	°C.		°C.				°C.	%	Mm.	Mm.	Mm.			Mm.	Mm.	M.p.s.		M.p.s.							%
PENNSYLVANIA																																
ALLENTOWN	115	1001.7	1016.2	17.8	6.1	11.9	-0.2	26.7	12	-3.9	30	0	6	6.7	74	77	2	30	11	1	5	T	3.5	WSW	12.5*	NW	7	7	13	11	6.0	
ERIE	223	988.8	1015.1	16.7	8.3	12.3	0.8	27.8	16+	-0.6	25	0	1	7.2	73	102	18	24	15	9	76	25	5.9	S	13.9*	WSW	16	4	10	17	7.5	
HARRISBURG	102	1002.0	1015.9	18.9	7.2	13.2	0.0	29.4	12+	-2.2	25	0	5	7.8	72	107	31	65	8	1	T	T	3.2	WNW	11.6	NW	24	6	10	15	6.3	58
PHILADELPHIA	2	1011.1	1015.7	19.4	7.2	13.5	0.3	29.4	12	-3.9	25	0	4	7.2	68	24	-46	7	10	1	T	T	3.4	N	12.5	N	29	9	9	13	6.0	56
PHILADELPHIA U	11			19.4	10.0	14.9	0.2	30.0	12	0.0	27	0	1																			
PITTSBURGH	356	986.2	1017.0	17.2	6.1	11.8	0.1	26.7	16	-4.4	27	0	5	6.1	70	54	-10	22	13	3	46	T	3.5	WSW	12.5*	SW	28	8	7	16	6.6	51
PITTSBURGH U	228			18.9	8.3	13.7	0.3	28.3	16+	-1.1	27+	0	3			42	-22	8	12		T											40
READING U	81	1003.6	1015.9	18.9	8.3	13.7	-0.3	28.9	12	-1.1	30	0	2			84	12	30	11	0	T	T	3.8	NW	17.0	W	24	9	9	13	5.9	51
SCRANTON	287	981.7	1016.0	15.6	6.1	10.9	0.3	25.0	12	-2.8	25	0	6	5.6	72	139	50	66	14	2	112	76	3.1	SW	10.7	S	12	4	11	16	7.0	46
WILLIAMSPORT	161	996.8	1016.0	17.2	5.6	11.4	-0.3	27.2	11	-3.3	28	0	6	6.1	74	135	51	98	15	1	8	T	3.3	W	10.3*	S	16	3	12	16	7.2	
RHODE ISLAND																																
BLOCK ISLAND	34	1010.0	1014.4	15.0	8.9	12.1	-0.8	21.7	12	-1.1	30	0	1			185	108	45	11	2	T	T						5	8	18	7.1	
PROVIDENCE	17	1008.6	1014.8	16.1	6.1	11.2	-0.6	26.7	12	-2.2	30	0	4	6.1	72	302	223	168	10	3	41	51	4.3	WNW	14.3*	SSW	28	9	5	17	6.4	51
SOUTH CAROLINA																																
CHARLESTON	12	1014.5	1016.6	25.6	12.8	19.2	0.2	32.2	8	0.6	28+	1	0	13.3	73	83	10	45	6	1	0	0	3.4	N	16.1Y	N	31	14	11	6	4.1	74
CHARLESTON U	3			25.0	16.1	20.7	0.6	31.7	8+	3.9	27	0	0			53	-17	35	8		0	0	4.3		13.9	E	2					
COLUMBIA	66	1004.1	1017.0	26.1	11.1	18.6	0.4	32.2	13+	-3.3	27	2	4	11.1	67	23	-38	20	3	1	0	0	3.0	WSW	8.9*	NNE	19	16	8	7	4.0	72
FLORENCE	45	1010.7	1016.6	26.1	11.7	18.8	0.4	33.3	8	-2.8	27	2	3	11.1	66	7	-48	3	4	0	0	0	3.4	NNE	10.3*	NNE	18	17	7	7	4.1	
SOUTH DAKOTA																																
HURON	391	968.2	1015.8	18.9	2.2	10.4	0.5	28.3	14	-10.6	25	0	12	3.3	66	14	-15	10	4	0	23	T	4.2	NW	15.2	NW	15	9	11	11	5.4	69
RAPID CITY	965	902.2	1016.5	18.9	4.4	11.6	1.6	28.3	14+	-6.1	25	0	5	2.2	59	41	21	37	5	0	T	T	4.8	NNW	17.0*	NW	15	13	6	12	5.3	74
SIOUX FALLS	433	963.9	1015.9	18.3	5.0	11.5	1.3	27.8	10	-7.2	25	0	7	5.6	71	12	-20	5	5	0	18	T	3.8	N	10.3*	NNW	22+	11	9	11	5.2	
TENNESSEE																																
BRISTOL	459	963.1	1017.8	20.6	8.9	14.8	0.5	27.2	8	-6.7	27	0	3	9.4	74	58	3	24	9	1	T	T	2.0	SW	11.2*	WNW	30+	11	9	11	5.3	
CHATTANOOGA	204	990.3	1018.1	24.4	10.6	17.3	1.2	30.0	12	-2.2	27	0	2	10.6	71	86	9	49	6	3	0	0	2.5	S	11.2	NW	23	15	6	10	4.5	70
KNOXVILLE	290	982.8	1018.2	23.3	10.6	16.9	0.9	28.9	15+	-3.9	27	0	2	9.4	64	56	-10	25	8	2	T	T	3.0	SW	11.6	SW	25	13	9	9	4.9	56
MEMPHIS	80	1002.7	1017.4	24.4	13.3	18.8	1.3	30.6	15+	2.2	24	0	0	12.8	70	65	-4	34	7	2	0	0	3.8	S	11.6	NE	30	12	9	10	4.8	70
MEMPHIS U	83			23.3	14.4	19.1	0.9	30.6	14	4.4	24	0	0			53	-19	19	7		0	0										
NASHVILLE	176	997.2	1017.2	23.9	10.6	17.2	0.8	30.0	15+	-1.1	27+	0	2	11.1	71	58	-1	38	7	2	0	0	2.8	S	11.6	NW	25	13	9	9	4.9	63
OAK RIDGE	276	984.8		22.2	9.4	16.0	0.5	29.4	8	-4.4	27	0	4			83	15	31	7	1	T	T	1.3		14.3Y			15	8	8	4.2	
TEXAS																																
ABILENE	536	955.0	1015.7	26.7	14.4	20.6	1.6	35.0	15	4.4	30	6	0	12.8	65	58	-15	37	3	3	0	0	4.2	S	13.0	SE	12	14	6	11	4.6	71
AMARILLO	1099	889.4	1015.1	23.9	8.9	16.4	1.1	33.3	11	2.2	29	4	0	5.0	55	22	-23	18	3	0	0	0	5.1	SW	15.2	SW	19	20	6	5	2.9	81
AUSTIN	182	994.7	1016.5	28.3	17.8	22.9	1.4	33.9	15+	8.9	30	10	0	16.1	69	103	31	39	5	6	0	0	4.0	S	16.1	NW	8	10	9	12	5.3	50
BROWNSVILLE	5	1012.9	1015.4	31.7	21.7	26.4	2.1	35.6	1	11.1	31	16	0	20.6	73	26	-63	10	6	2	0	0	5.0	SE	12.5	NW	30	8	17	6	4.6	63
CORPUS CHRISTI	13	1014.5	1016.0	31.1	20.6	25.9	2.3	35.6	9	10.0	30	15	0	18.9	69	10	-60	5	5	2	0	0	5.5	SSE	11.6	SE	28+	8	16	7	4.8	70
DALLAS	147	998.3	1016.8	26.7	16.1	21.6	1.7	33.3	7	6.1	31	5	0	14.4	66	185	117	125	4	3	0	0	5.3	SSE	15.2	W	8	10	13	8	5.0	64
DEL RIO U	292			30.6	19.4	24.8	2.7	36.7	15	8.3	30	11	0			74	24	64	6	5	0	0										
EL PASO	1194	887.7	1014.6	26.1	10.6	18.3	-0.3	30.6	15+	2.2	22	0	0	6.1	50	14	-8	11	4	2	0	0	2.7	NE	18.8	S	4	24	3	4	2.3	85
FORT WORTH	166	996.0	1016.7	26.7	16.1	21.3	1.4	33.3	11	6.1	31	6	0	14.4	67	105	40	57	6	3	0	0	5.1	S	12.5*	SSW	15	10	14	7	4.8	
GALVESTON U	2			26.7	21.7	24.1	1.0	30.0	9	14.4	31	0	0			84	11	30	6		0	0	5.0		13.0	S	14					86
GALVESTON	2	1014.7	1017.1	27.2	21.7	24.5	1.5	31.1	11+	14.4	31+	0	0	16.7	62	89	8	32	8	7	0	0	4.6	SE				15	10	6	4.5	
HOUSTON U	12			29.4	20.0	24.6	2.2	35.6	8	12.2	31	9	0			145	53	54	7		0	0										
HOUSTON	15	1014.0	1016.5	29.4	17.8	23.7	1.2	35.6	8	10.6	31	10	0	17.8	76	79	-17	30	7	7	0	0	3.9	SSE				9	15	7	4.7	76
LAREDO	152	999.8	1014.9	32.8	21.1	26.9	2.8	36.7	10	9.4	30	18	0	16.7	59	8	-33	5	3	1	0	0	5.3	SE	13.0*	S	17	12	15	4	4.2	
LUBBOCK	988	904.6	1017.8	24.4	10.0	17.1	0.8	32.2	12+	3.9	30	2	0	9.4	66	68	17	29	7	5	0	0	5.4	SSW	12.1*	ENE	23+	22	3	6	3.0	
MIDLAND	870	916.6	1014.5	26.1	13.3	19.8	0.9	34.4	15	6.1	24	8	0	10.6	62	22	-20	9	5	3	0	0	4.3	S	10.7*	ENE	16	15	8	8	4.1	
PORT ARTHUR	5	1015.1	1015.3	28.9	16.7	22.7	1.7	33.9	8	7.8	31	7	0	18.3	81	78	5	24	8	8	0	0	3.5	S	17.0	N	16	8	18	5	4.9	72
SAN ANGELO	580	948.5	1014.9	28.9	15.6	22.3	1.8	36.7	15	4.4	30	8	0	12.8	61	18	-28	15	4	5	0	0	3.8	SSE	11.2*	SSE	5	15	8	8	4.4	
SAN ANTONIO	241	991.1	1015.8	30.0	18.3	24.2	2.7	35.0	15+	7.8	30	11	0	15.6	63	56	-8	28	3	2	0	0	4.4	SSE	13.0	ENE	16	9	15	7	4.9	60
VICTORIA	32	1011.7		30.0	18.9	24.4	1.9	35.0	9+	10.0	31+	13	0			37	-51	15	7	7	0	0	4.4		17.4Y		28	10	14	7	4.7	
WACO	152	995.7	1015.2	27.8	16.7	22.4	1.6	33.9	7	7.2	31	10	0	15.0	67	60	-5	28	6	5	0	0	6.3	SSE	13.0	S	28+	9	11	11	5.3	
WICHITA FALLS	303	979.0	1015.7	26.7	13.9	20.4	1.6	35.0	15	4.4	25	7	0	12.8	68	55	-18	40	5	5	0	0	4.6	S	20.6*	SW	27	20	5	6	3.5	
UTAH																																
MILFORD	1533	846.2		20.6	1.7	11.2	0.8	27.8	3	-5.6	27	0	14			14	-6	7	6	1	T	T			73.9			20	4	7	3.1	
SALT LAKE CITY	1286	869.9	1018.1	20.6	5.0	12.9	1.4	28.9	4+	-0.6	26+	0	3	0.6	51	24	-6	16	4	2	T	T	4.5	S	21.0	S	14	18	7	6	3.5	80
WENDOVER	1291	872.2		19.4	6.7	13.2	1.4	27.8	9	2.8	26	0	0			24	12	24	2	1	T	T						21	4	6	3.0	

See footnotes at end of table

CLIMATOLOGICAL DATA

METRIC UNITS

State and Station	Elevation (ground)	Pressure: Station Ø	Pressure: Sea level	Temperature: Average maximum	Temperature: Average minimum	Temperature: Average	Temperature: Departure from normal	Temperature: Highest	Temperature: Date	Temperature: Lowest	Temperature: Date	Temperature: No. of days: Max 32.2 °C or above	Temperature: No. of days: Min. 0 C or lower	Average dew point	Average relative humidity	Precipitation: Total	Precipitation: Departure from normal	Precipitation: Greatest in 24 hours	Precipitation: No of days: 25 mm or more	Precipitation: No of days: With thunderstorms	Snow Sleet: Total	Snow Sleet: Maximum depth on ground	Wind: Average speed	Wind: Prevailing direction	Wind: Fastest mile (1.6 kilometers): Speed	Wind: Fastest mile: Direction	Wind: Fastest mile: Date	No. of days (sunrise to sunset): Clear, 0-3	No. of days: Partly cloudy, 4-7	No. of days: Cloudy, 8-10	Sky cover, tenths (sunrise to sunset)	Possible sunshine
	M.	Mb.	Mb.	C.	C.	C.	C.	C.		C.				C.	%	Mm.	Mm.	Mm.			Mm	Mm.	M.p.s.		M.p.s							%
VERMONT																																
BURLINGTON	101	999.8	1014.6	12.8	3.3	7.9	-1.3	22.8	3	- 5.0	29	0	10	3.9	77	83	8	29	16	1	3	T	3.3	S	12.1	NW	12	2	7	22	8.1	33
VIRGINIA																																
LYNCHBURG	289	991.7		21.1	9.4	15.3	0.8	30.0	8	- 6.1	27	0	3			38	- 29	30	5	0	T	T	3.6		10.7	W	23	15	8	8	4.6	64
NORFOLK	8	1015.1	1016.5	21.1	12.2	16.6	-0.1	28.9	12+	- 1.1	27	0	1	11.7	75	114	40	84	5	2	0	0	4.6	SW	15.6	W	26	14	8	9	4.9	62
RICHMOND	49	1010.3	1016.6	23.3	8.3	15.8	0.7	30.6	12+	- 6.1	27	0	4	8.3	66	13	- 64	8	5	0	0	0	3.0	NNE	8.9	NW	26+	14	7	10	4.8	62
ROANOKE	358	975.0	1017.2	21.1	9.4	15.2	0.7	30.0	13+	- 3.3	27	0	4	7.8	65	56	- 25	36	9	2	T	T	3.7	WSW	13.4	W	26	12	8	11	4.9	
WASHINGTON																																
OLYMPIA	58	1010.6	1017.6	16.1	5.0	10.6	-0.2	23.3	2	1.7	17+	0	0	8.3	87	152	18	53	17	2	0	0	2.7	SW	25.9*	SW	12	1	6	24	8.3	
SEATTLE TACOMA	122	1002.9	1017.1	15.0	7.8	11.4	0.4	22.2	2+	3.3	16	0	0	8.3	86	106	4	36	14	2	0	0	4.0	SE	19.7*	SSW	12	3	8	20	7.6	
SEATTLE U	4			16.1	10.0	13.2	0.7	22.8	1	5.6	16	0	0			87	3	31	14	0	0	0			29.1	SW	12					39
SPOKANE	718	949.5	1018.4	13.3	3.9	8.7	-0.6	26.1	2	- 0.6	17	0	2	4.4	81	41	1	14	9	0	0	0	3.3	NE	14.8	SW	12	3	9	19	7.6	44
STAMPEDE PASS R	1206	880.1		8.9	2.8	5.9	0.1	17.8	2	- 1.1	16+	0	7			123	-100	22	19	0	287	152						4	5	22	7.8	
TATOOSH ISLAND	31	1013.0	1015.9	13.9	8.9	11.4	0.3	17.2	1	6.7	11	0	0	9.4	86	165	- 44	30	18	1	0	0	7.4	ENE	29.5	E	12+	3	5	23	8.3	39
WALLA WALLA U	289	981.3		16.7	7.8	12.3	-0.5	23.9	1	3.3	16	0	0			76	37	22	8	0	0	0	1.6	E	15.2	W	12	9	5	17	6.5	48
YAKIMA	323	978.5	1017.9	17.2	2.2	9.9	-0.4	24.4	2+	- 1.1	16+	0	5	4.4	76	38	23	16	5	0	0	0	2.7	WNW	10.7*	SSW	12+	9	9	13	5.9	
WEST INDIES																																
SAN JUAN P.R.	5	1010.8	1013.6	31.1	22.8	26.9	1.3	33.3	5	21.1	22	8	0	22.2	79	71	- 94	18	18	5	0	0	2.2	SSE	9.4	E	7	2	21	8	6.2	69
SWAN ISLAND	9	1010.7		30.0	25.6	27.9	0.3	31.7	10	22.2	26	0	0			251	4	52	21	6	0	0						4	13	14	7.0	
WEST VIRGINIA																																
CHARLESTON	286	1015.2	1017.0	20.0	8.3	14.1	0.0	28.9	12	- 8.3	27	0	4	8.9	76	64	- 1	33	11	1	15	25	2.4	SW	11.2*	WSW	25	3	14	14	6.7	
ELKINS	600	1015.6	1017.5	17.8	5.0	11.4		27.8	15	-11.1	27	0	11	7.2	79	132		44	15	4	69	51	2.9	WSW	12.5*	NW	23	4	11	16	7.1	
HUNTINGTON U	252	987.0		20.6	8.3	14.4	-0.4	30.0	12	- 8.9	27	0	5	9.8	74	71	19	26	12	1	T	T	2.6	SSW	9.4*	WNW	23	6	10	15	6.2	
PARKERSBURG U	187			20.0	8.3	14.2	0.3	30.0	15	- 6.1	27	0	3			55	3	17	9	3	T	T	2.6		13.0		723					49
WISCONSIN																																
GREEN BAY	208	991.8	1014.9	15.6	5.6	10.4	1.3	26.7	14	- 5.6	26+	0	8	7.2	81	49	1	21	7	3	10	T	3.1	NE	13.9	W	16	5	12	14	6.8	39
LA CROSSE	199	990.4		16.7	6.7	11.7	1.1	29.4	10	- 7.8	26	0	5	6.1	73	57	1	16	7	1	T	T	4.5	S	17.4*	NW	22	7	9	15	6.5	
MADISON	262	979.6	1015.1	16.7	5.6	11.1	0.8	27.8	10	- 8.9	26	0	9	6.7	75	43	- 13	17	11	2	5	T	4.2	S	12.1	NW	24+	6	13	12	6.3	49
MILWAUKEE	205	989.9	1013.9	16.1	6.7	11.4	1.4	27.2	15+	- 5.6	26	0	5	6.7	74	54	1	38	10	1	3	T	4.9	SSW	12.5	W	16	6	14	11	6.3	57
WYOMING																																
CASPER	1621	838.6	1016.6	18.3	3.3	10.7	1.7	26.7	4	- 3.9	25	0	5	- 2.2	48	63	42	63	2	1	0	0	5.0	WSW	16.5*	SW	14+	11	12	8	5.2	
CHEYENNE	1867	815.1	1016.7	18.3	2.8	10.6	1.9	26.1	14+	- 3.3	25	0	6	- 1.7	50	16	- 5	15	2	1	T	T	5.5	WNW	21.9	NW	14	12	9	10	4.9	76
LANDER	1696	836.5	1016.1	18.9	3.3	10.9	2.5	26.7	4	- 5.0	17	0	8	- 2.2	46	28	- 3	27	3	1	0	0	3.0	WSW	15.2	SW	14+	10	13	8	4.6	83
SHERIDAN	1202	885.5	1017.3	18.9	1.7	10.1	1.3	27.2	4	- 6.7	25	0	11	1.1	60	9	- 19	7	4	0	T	T	2.8	WNW	16.1	NW	14	8	13	10	5.7	66

Data from airport unless otherwise specified. U indicates Urban, R indicates Rural, sites.
* Value entered in column headed "Fastest Mile" is the highest observed wind speed. This station is not equipped with an automatic recording wind instrument.
A Maximum hourly average.
+ And also on an earlier date or dates.
Ø Station pressures apply to elevations shown in the "Elevations - Station Pressure" table of the annual issue of this publication.
B Number of days maximum 21.1°C. or above for Alaskan Stations.
$ Wind direction to 8 compass points only.
Y Peak Gust.

Data in this table is obtained by conversion from data in the English Units table.

HEATING DEGREE DAYS

(Base 65°F.)

State and station	Current season		Normals
	This month	Period July through this month	July through this month
ALABAMA			
Birmingham	100	109	142
Huntsville	125	145	139
Mobile	41	41	31
Montgomery	86	86	68
ALASKA			
Anchorage	836	1860	1982
Annette	489	1125	1389
Barrow	1477	3963	4178
Barter Island	1373	3878	3979
Bethel	1064	2310	2367
Cold Bay	780	2126	2196
Cordova	710	1937	2060
Fairbanks	1056	2061	2348
Juneau	645	1686	1847
King Salmon	918	2078	2056
Kotzebue	1273	2679	2799
McGrath	1171	2306	2363
Nome	1137	2598	2764
St. Paul	889	2667	2612
Shemya	728	2262	2337
Yakutat	670	1846	1875
ARIZONA			
Flagstaff	536	790	840
Phoenix (U)	1	1	
Phoenix	1	1	16
Prescott	220	232	272
Tucson	13	13	25
Winslow	232	247	233
Yuma	0	0	0
ARKANSAS			
Ft. Smith	86	96	139
Little Rock	78	95	136
Texarkana	56	56	78
CALIFORNIA			
Bakersfield	44	44	37
Bishop	170	183	308
Blue Canyon	337	487	520
Burbank	51	51	49
Eureka (U)	312	1099	1114
Fresno	69	69	84
Long Beach	43	43	56
Los Angeles (U)	33	33	37
Los Angeles	35	37	170
Mt. Shasta (R)	421	585	588
Oakland	134	352	275
Point Arguello (R)	186	853	755
Red Bluff	68	78	53
Sacramento (U)	92	95	62
Sacramento	97	97	56
Sandberg (R)	205	234	232
San Diego	25	26	73
San Francisco (U)	130	753	586
San Francisco	162	482	362
San Jose (U)	92	112	
Santa Maria	162	520	434
COLORADO			
Alamosa	591	1058	1082
Colorado Springs	335	476	647
Denver	352	483	517
Grand Junction	255	294	343
Pueblo	262	313	380
CONNECTICUT			
Bridgeport	342	480	373
Hartford	428	730	523
Middletown	438	724	
New Haven	356	507	446
DELAWARE			
Wilmington	266	383	321
DIST. OF COLUMBIA			
Washington (U)	198	277	
Washington	182	241	250
FLORIDA			
Apalachicola (U)	33	33	16
Daytona Beach	16	16	0
Fort Myers	0	0	0
Jacksonville	43	43	12
Key West	0	0	0
Lakeland (U)	6	6	0
Miami	0	0	0
Miami Beach	0	0	0
Orlando	4	4	0
Pensacola (U)	37	37	19
Tallahassee	64	70	28
Tampa	2	2	0
West Palm Beach	0	0	0
GEORGIA			
Athens	120	151	127
Atlanta	132	172	142
Augusta	110	126	78
Columbus	98	106	87
Macon	87	94	71
Rome	167	200	185
Savannah	79	84	47
Thomasville (U)	54	56	25
IDAHO			
Boise	369	465	504
Idaho Falls 46W (R)	520	865	943
IDAHO (Cont'd.)			
Idaho Falls 42NW (R)	579	964	986
Lewiston	414	553	526
Pocatello	416	610	673
ILLINOIS			
Cairo (U)	132	162	200
Chicago (Midway)	276	390	391
Chicago (O'Hare)	310	496	
Moline	342	500	458
Peoria	341	482	419
Rockford	339	533	529
Springfield	268	362	363
INDIANA			
Evansville	223	315	299
Ft. Wayne	314	483	483
Indianapolis	286	433	406
South Bend	340	539	489
IOWA			
Burlington	307	427	415
Des Moines	289	399	449
Dubuque	394	633	649
Sioux City	336	502	529
Waterloo	389	619	572
KANSAS			
Concordia	233	342	321
Dodge City	212	284	284
Goodland	311	433	468
Topeka	225	317	327
Wichita	172	212	262
KENTUCKY			
Lexington	243	337	293
Louisville	224	319	320
LOUISIANA			
Alexandria	63	63	
Baton Rouge	34	34	37
Lake Charles	29	29	19
New Orleans (Audubon Park)	8	8	
New Orleans	24	24	25
Shreveport	47	47	59
MAINE			
Caribou	695	1361	1211
Greenville (U)	683	1356	
Portland	529	921	768
MARYLAND			
Baltimore (U)	163	214	216
Baltimore	242	344	312
Frederick	290	429	373
MASSACHUSETTS			
Blue Hill Obs. (R)	420	648	511
Boston	330	454	385
Nantucket	346	523	496
Pittsfield	541	973	827
Worcester	483	783	637
MICHIGAN			
Alpena	543	1023	910
Detroit (City AP)	327	490	453
Detroit (M. Wayne Co.)	358	553	495
Detroit (Willow Run)	335	506	447
Escanaba (U)	506	908	928
Flint	414	698	612
Grand Rapids	372	573	606
Lansing	406	644	597
Marquette (U)	504	1014	907
Muskegon	379	604	652
S. Ste. Marie	546	1060	1132
MINNESOTA			
Duluth	611	1252	1127
Internat. Falls	620	1171	1247
Minneapolis	461	765	757
Rochester	442	753	735
St. Cloud	474	796	849
MISSISSIPPI			
Jackson	73	73	65
Meridian	91	93	81
Vicksburg (U)	64	64	53
MISSOURI			
Columbia	219	302	305
Kansas City	184	246	275
St. Joseph	253	353	351
St. Louis (RFC)	176	215	238
St. Louis	194	256	293
Springfield	228	302	268
MONTANA			
Billings	342	579	694
Butte	648	1432	
Glasgow	486	795	956
Great Falls	445	807	830
Havre	495	866	952
Helena	515	945	985
Kalispell	674	1239	1170
Miles City	427	681	688
Missoula	674	1159	1062
NEBRASKA			
Grand Island	372	550	444
Lincoln (U)	278	387	382
Norfolk	367	562	517
North Platte	363	541	569
Omaha	284	401	422
Omaha N. Omaha AP	317	466	511
Scottsbluff	383	551	597
Valentine	421	614	679
NEVADA			
Elko	458	713	829
Ely	500	755	897
Las Vegas	28	28	74
Reno	422	666	743
Tonopah	311	377	
Winnemucca	436	631	780
NEW HAMPSHIRE			
Concord	519	814	738
Mt. Washington Obs. (R)	1097	3079	2806
NEW JERSEY			
Atlantic City	250	335	290
Atlantic City (U)	234	295	
Newark	250	338	315
Trenton (U)	257	368	321
NEW MEXICO			
Albuquerque	208	230	226
Clayton	226	293	382
Raton	351	470	594
Roswell	210	218	235
Silver City	138	147	
NEW YORK			
Albany	451	687	597
Binghamton	478	799	744
Buffalo	415	663	637
New York (U)	243	332	263
New York (LaGuardia)	237	324	250
Rochester	409	649	581
Schenectady	439	663	
Syracuse	422	629	581
NORTH CAROLINA			
Asheville (U)	224	315	293
Cape Hatteras (R)	99	103	78
Charlotte	156	192	148
Greensboro	180	255	225
Raleigh	166	227	185
Wilmington	113	135	74
Winston-Salem	168	237	192
NORTH DAKOTA			
Bismarck	474	752	855
Devils Lake (U)	533	921	1008
Fargo	439	687	858
Grand Forks CAA	83	454	
Pembina	78	437	
Williston (U)	494	832	903
OHIO			
Akron	356	542	521
Cincinnati (U)	204	282	
Cincinnati	229	360	333
Cincinnati Obs.	239	343	302
Cleveland	331	509	572
Columbus	342	518	400
Columbus (U)	271	396	
Dayton	300	461	394
Mansfield	374	583	542
Sandusky (U)	308	429	385
Toledo	348	520	539
Youngstown	397	660	530
OKLAHOMA			
Oklahoma City	129	148	189
Tulsa	117	138	155
OREGON			
Astoria	353	879	889
Burns (U)	518	815	774
Eugene	379	575	563
Meacham	570	1210	1076
Medford	417	498	413
Pendleton	375	473	477
Portland (U)	260	378	370
Portland	299	443	502
Roseburg	355	454	472
Salem	377	603	505
Sexton Summit (R)	424	875	794
PENNSYLVANIA			
Allentown	352	534	443
Erie	338	545	518
Harrisburg	297	426	361
Philadelphia (U)	206	283	
Philadelphia	272	385	357
Pittsburgh (U)	274	416	351
Pittsburgh	365	604	489
Reading (U)	271	389	311
Scranton	414	626	615
Williamsport	389	597	495
RHODE ISLAND			
Block Island	344	472	401
RHODE ISLAND (Cont'd.)			
Providence	389	567	484
SOUTH CAROLINA			
Charleston (U)	63	64	34
Charleston	95	103	59
Columbia	112	126	84
Florence	110	131	78
SOUTH DAKOTA			
Huron	443	701	654
Pierre	362	522	
Rapid City	372	577	680
Sioux Falls	391	605	674
TENNESSEE			
Bristol	228	300	308
Chattanooga	140	166	188
Knoxville	156	188	201
Memphis (U)	104	116	114
Memphis	107	121	142
Nashville	152	195	188
Oak Ridge	185	243	231
TEXAS			
Abilene	68	70	99
Amarillo	159	182	250
Austin	20	20	31
Brownsville	0	0	0
Corpus Christi	4	4	0
Dallas	41	41	62
Del Rio (U)	2	2	
El Paso	65	65	68
Ft. Worth	46	46	65
Galveston (U)	4	4	0
Galveston	4	4	6
Houston (U)	5	5	0
Houston	8	[illegible]	0
Laredo	0	0	0
Lubbock	143	161	192
Midland	74	76	87
Port Arthur	20	20	25
San Angelo	36	36	65
San Antonio	9	9	31
Victoria	7	7	6
Waco	26	26	43
Wichita Falls	68	70	109
UTAH			
Milford	392	475	542
Salt Lake City	322	401	463
Wendover	289	326	420
VERMONT			
Burlington	571	992	738
VIRGINIA			
Lynchburg	212	318	274
Norfolk	148	185	136
Richmond	175	248	238
Roanoke	221	321	280
WASHINGTON			
Olympia	428	865	759
Seattle (U)	280	478	555
Seattle	308	497	605
Seattle-Tacoma	377	730	747
Spokane	531	815	750
Stampede Pass (R)	684	1744	1658
Tatoosh Island (R)	382	1307	1286
Walla Walla	345	437	
Walla Walla (U)	329	408	397
Yakima	463	673	606
WEST VIRGINIA			
Charleston	273	390	320
Huntington (U)	266	396	262
Parkersburg (U)	274	394	324
WISCONSIN			
Green Bay	443	706	806
La Crosse	379	609	621
Madison	414	700	698
Milwaukee	395	668	735
WYOMING			
Casper	418	688	738
Cheyenne	425	709	827
Lander	417	673	784
Sheridan	454	806	814

Data from airport unless otherwise specified.
U indicates Urban, R indicates Rural, sites.

PACIFIC COAST STORM, OCTOBER 11 - 13, 1962

Compiled by Howard C. Sumner
Marine Area Section, Climatology, U. S. Weather Bureau

Three storm centers reached the coastal areas of California, Oregon, and Washington in rapid succession and resulted in 3 days of high winds and excessive rains that caused damage of about $250 million and took an estimated 57 lives.

The first of these storms (track I on chart) formed in a trough off the west coast of Oregon on the 11th and moved northward and then northwestward, weakening on the 12th. It resulted in gale force winds and heavy rains along the coast. The second storm, which caused most of the destruction, reached the coast as the extratropical stage of typhoon Freda and is shown as track II. This typhoon had taken on extratropical characteristics on the 10th, and from a position about 350 mi. south of the Aleutian Islands on that date moved southeastward as an open wave to a point some 500 mi. west of San Francisco early on the 12th. By this time, the storm was intensifying rapidly and the central pressure dropped from 988 mb. (29.18 in.) at 2200 p. s. t. on the 11th to 964 mb. (28.47 in.) 12 hours later. The lowest pressure observed during the storm was 962 mb. (28.42 in.). This reading was reported by a radar picket ship off the northern California coast at about this time. The storm turned more northward and by late on the 12th it had reached the Puget Sound area and later passed over the eastern end of Vancouver Island. Winds gusting in excess of 100 m.p.h. along with excessive rainfall amounts were recorded. The third storm (track III) developed in a trough position similar to the first storm. It was much less severe than the first two storms and caused little additional damage.

Following are individual summaries for the states of California, Oregon and Washington. Included is a tabular listing of meteorological data.

CALIFORNIA.--Primary damage from this storm in California came as a result of exceptionally heavy rains which fell over a relatively narrow band which extended along a south-southwest--north-northeast axis through the central and northern portions of the State. Substantial rains fell during the night of the 11th-12th in the Bay area and northeastward into the Sierras. After a brief respite during the afternoon of the 12th, the rain began again during the evening and continued until the evening of the 13th. Three-day totals ranged from around 7 inches to nearly 20 inches in the Bay area up to 25 inches at some stations in the northern Sierras. Five-day totals approached 30 inches in some mountain areas. The Oakland Weather Bureau Office reported 5.45 inches, the greatest 24-hour total in 34 years of record, and 7.99 inches, the greatest 48-hour total of record.

Wind, although not as serious and widespread a problem as flooding, did considerable damage in some areas. Winds were estimated at hurricane force at some exposed locations on the north coast, and winds near whole gale force reached as far south as the San Francisco area. The San Francisco Airport recorded a 1-minute average of 50 m. p. h. and a peak gust of 63 m. p. h.

The loss of life associated with this storm in California has been set at 19. Three were buried in mud slides, one was drowned, one electrocuted, one killed by a falling tree, and the others lost their lives in weather-influenced traffic accidents. Damage in California has been estimated at $10 million. Some of the heavier losses were concentrated in the urban areas of the Bay region. Mud slides and flooding damaged or destroyed scores of homes and business establishments. Powerlines and telephone cables were downed in many areas, generally as a result of falling trees or limbs. Losses to roadways and drainage structures have been estimated at from $2 to $3 million. Highways were closed for periods of up to 4 days. An entire community was evacuated when a large metropolitan water supply dam threatened to go out; the dam held, although it was seriously damaged. Heavy construction equipment valued at around $500, 000 was lost at the Oroville Dam project when the Feather River washed out a cofferdam. Minor damage from wind and wave action was reported at exposed points along the coast.

Agricultural losses were severe in many areas and accounted for a large portion of the total damage inflicted. Trees and vines were uprooted in some orchards. Wine grapes in the north coastal region and walnuts in the Sacramento Valley were hard hit by the high winds and heavy rains.

OREGON.--The hurricane force winds that struck Oregon during the 11th and 12th resulted in one of the major weather catastrophes of the State's history. Winds gusting well over 100 m. p. h. were observed at a number of places, with the record of most peak gusts lost because of power failures. Rainfalls were generally lighter than in northern California with 3 to 8 inches recorded in coastal areas. In the Willamette Valley amounts ranged from 2 to 4 inches, and east of the Cascades the precipitation was generally lighter.

The Weather Bureau Airport Station at Portland reported a lowest pressure of 976. 6 mb. (28. 84 in.) at 3:29 p. m. and a fastest mile of 88 m. p. h. At the Morrison Street Bridge in downtown Portland, the fastest 2-minute wind speed was 45 m. p. h. at 8:20 p. m. and 9:00 p. m., and the highest observed gust was 116 m. p. h. at 6:14 p. m. Astoria reported a low pressure 969. 2 mb. (28. 62 in.) at 6:00 p. m., and a gust of 96 m. p. h. at 7:30 p. m. These observations were all made on the 12th.

Shipping escaped the damaging effect of the storm. Over the open water off the coast strong winds above hurricane force were reported; but seas, though rough, did not have time to reach a fully arisen state due to the quick intensification and fast forward movement of the storm. No loss of major vessels was reported in the Bay area, or the Columbia River, or in the Puget Sound and Vancouver areas. Ample forecasts had been issued in advance of the storm. Winds estimated at 100 m. p. h. were reported by the COLORADO STAR in the Columbia River. The vessel was forced to anchor near the entrance to the Willamette River. A serious grounding was narrowly averted by tugs and her own crew when the 12,700-ton WASHINGTON broke loose from her mooring in the Willamette River and for a time was out of control in the channel. Three idle ships, the P & T SEAFARER, PORTLAND VICTORY, and PUEBLO, likewise snapped their moorings at Swan Island in the Portland area and went aground.

Damage in Oregon has been estimated at $170 million. In western Oregon, a high percentage of buildings and fruit trees were heavily damaged and many were destroyed.

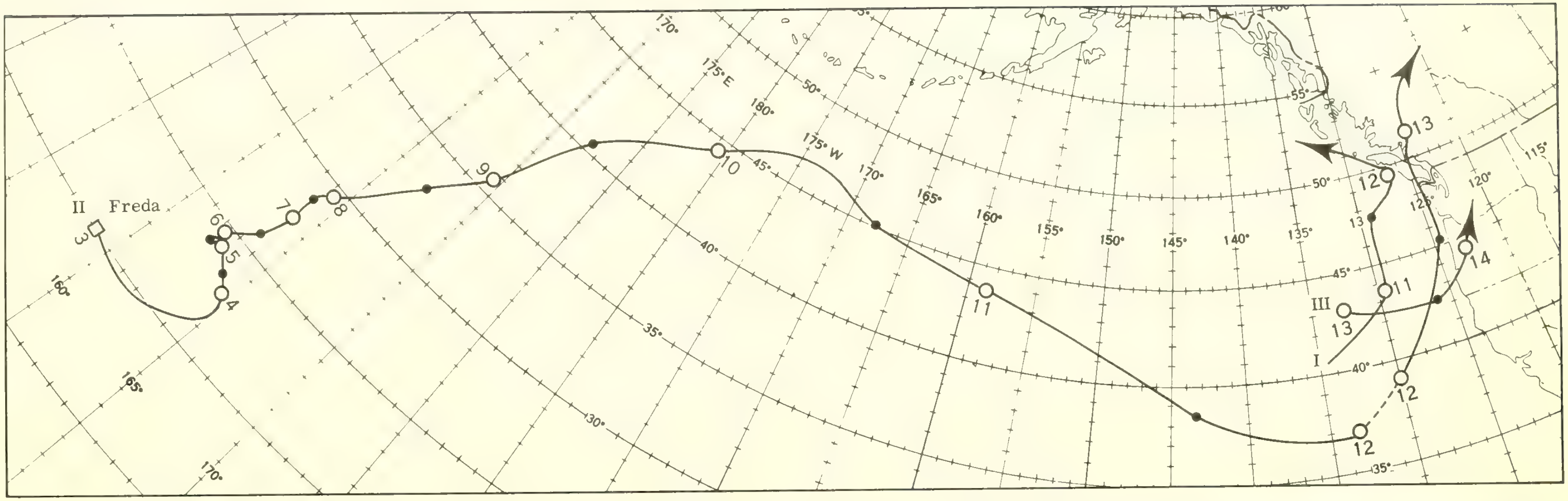
The forest industries were particularly hard hit with losses due to blown down trees from northern California into British Columbia probably reaching 5 billion board feet of timber. The Red Cross has estimated that 84 homes were destroyed. Over 5,000 homes were severly damaged and another 40,000 to 50,000 sustained slight damage. At the height of the storm 70,000 telephones were out of operation and some 400,000 to 500,000 families were without power. Records indicate that 23 persons lost their lives in Oregon.

WASHINGTON.--Damaging storm winds reached western Washington during the late afternoon of October 12. The center of the storm moved northward along the Washington coast and passed over the eastern end of Vancouver Island, B. C., later that day.

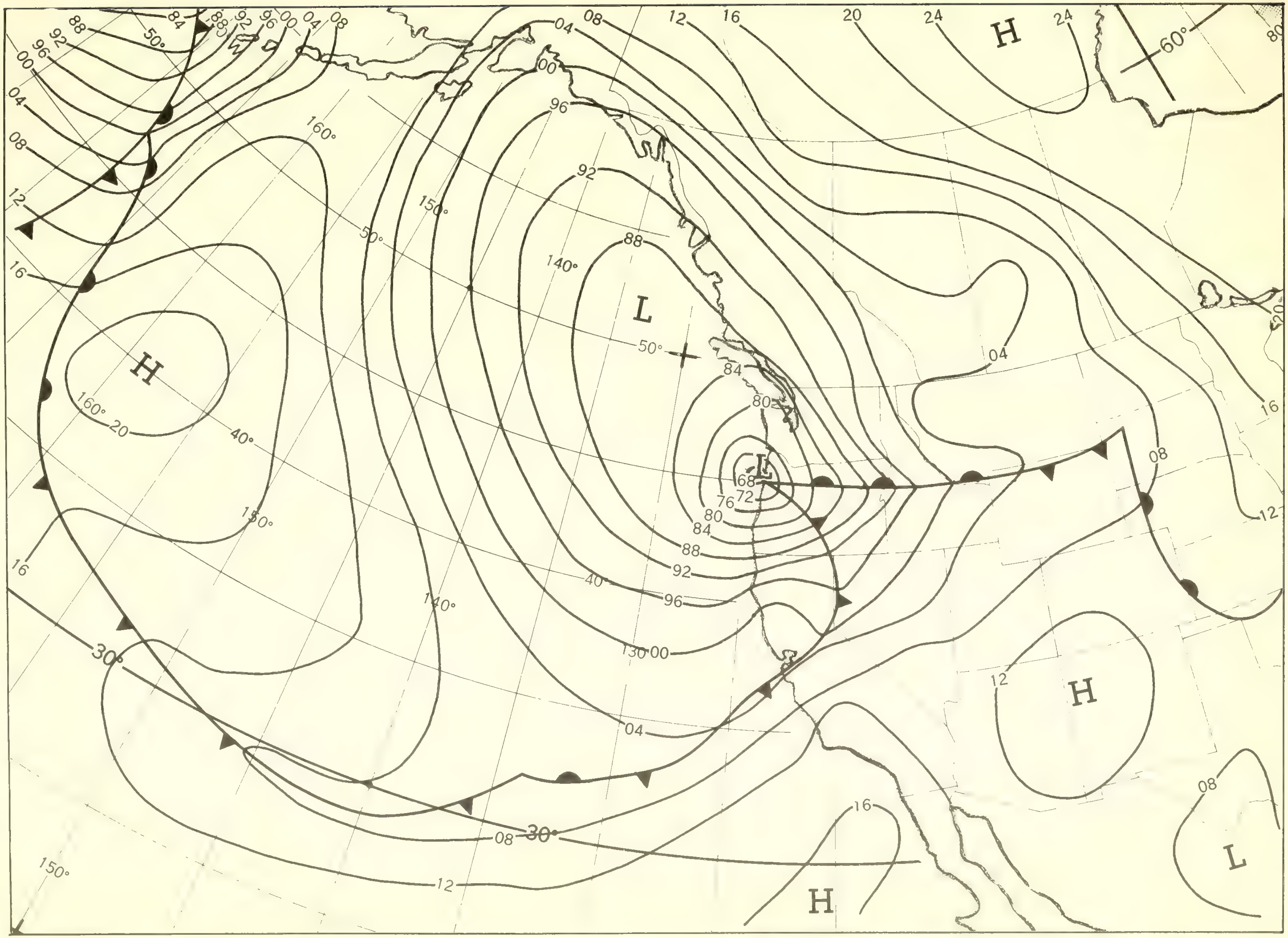
The intense storm that had earlier been typhoon Freda followed closely behind a smaller disturbance that had moved across the same section of western Washington approximately 24 hours earlier. The first storm crossed the area during the evening of the 11th and early morning of the 12th and produced southeasterly winds ranging from 30 to 45 m.p.h., with gusts in excess of 70 m.p.h. Power- and communication services were disrupted in some areas and a few buildings were damaged. The wind decreased to 10 to 15 m.p.h. and shifted to the northeast during the morning, gradually increasing in speed to 20 m.p.h. in the afternoon. Winds along the coast were somewhat higher. When the second and more severe storm struck the southern section of the State in the late afternoon of the 12th, the wind shifted very abruptly to the southeast or south and the speed increased to 40 to 55 m.p.h. or higher with gusts as high as 100 m.p.h.

A fastest mile of 65 m.p.h. from the southwest was recorded at the Seattle Weather Bureau Office at 8:47 p.m. on the 12th. Farther north the FAA Station at Bellingham Airport reported a fastest mile of 58 m.p.h. from the south-southeast with gusts to 92 m.p.h. at 11:58 p.m. on the 12th. At the Seattle World Fair, the Space Needle at Century 21 was closed at 7:30 p.m. on the 12th, and all exhibits were closed a short time later. The wind caused little damage at the Fair Grounds, but in the downtown section of Seattle a number of power- and communication lines were down, and the ferry service on Puget Sound was shut down for several hours. Railroads and highways in all areas west of the Cascades were blocked for various intervals of time by downed trees.

Damage to private and public property has been estimated at between $50 and $60 million; in Washington six persons were killed by falling trees and one is presumed drowned. Property damage in British Columbia has been estimated at more than $10 million and seven persons were reported killed.



Track of low pressure centers in Pacific Coast Storm, October 11-13, 1962. Open circle indicates 0400 PST position of date shown.



Sea level synoptic chart 1600 PST October 12, 1962. Pressure in millibars.

PACIFIC COAST STORM
OCTOBER 11-13, 1962

Station	Date	Pressure (inches)		Wind (miles per hour)				Highest Tide (feet) #	Time+	Storm Rainfall (inches)	Remarks
		Low	Time+	1-minute Wind Speed	Time+	Gusts	Time+				
CALIFORNIA	Oct.										
Bucks Creek P.H.	10-13									30.00*	
Eureka WBO	12			56 SW†						2.56*	Fastest mile tied all time record at Eureka set in December 1931.
Fuller Lake	10-13									27.72*	
Mt. Shasta	10-13									8.15*	
"MS" Picket Ship off No. California coast	12	28.42				92					
Mt. Tamalpais	12			77		120					
Red Bluff WBAS	12			68 SE†						3.51*	
Sacramento WBO	10-13									6.85*	
Sacramento WBAS	12			42 SW†						7.50*	
San Francisco WBAS	12			50 S		63				7.29*	
San Francisco WBO	12			38 SE†						5.48*	
Strawberry Valley	10-13									28.78*	
Washington Ridge	10-13									26.38*	
Woodleaf-Oroleve	10-13									26.80*	
OREGON											
Astoria WBAS	12	28.62	1800	44 SSW	1957	96	1930			0.91	In practically every case in Oregon there were periods of power failure usually of from 1 1/2 to several hours duration, occurring immediately after fastest observed speeds shown. It is, therefore, quite likely much higher speeds occurred but for which no measurement was possible.
Columbia River Lightship	12	-	1445			98					
Eugene WBAS	12	28.86	1556	63	1556	86	1556			1.12	
Hillsboro	12					90	1700				
Klamath Falls	12	29.21	1455							1.25	
Medford WBAS	12	29.02	1330	40	1320 & 1440	58	1440			1.63	
Mt. Hebo (USAF)	12					170	1800				At about 3,000 ft. elevation.
North Bend	12					81	1458				
Pendleton WBAS	12	29.15	1700	42	1934	53	1934			0.28	
Portland WBAS	12	28.84	1529	58 S†						1.12	
Portland Morrison St. Bridge	12					116	1814				COLORADO STAR in Columbia River forced to anchor. Estimated wind velocities above 100 m.p.h.
Roseburg WBAS	12	28.86	1345	50 S†		62				1.92	
Salem WBAS	12	28.80	1630	58 S	1758	90	1758			1.62	
Sexton Summit	12					48				3.09	
Troutdale FAA	12			69	1907	106	1910				
WASHINGTON											
Bellingham FAA	12	28.91	1958	58 SSE	2358	98	2358			0.55	
Destruction Island	12	28.54									
Friday Harbor	12							7.7	1600		Predicted tide 7.6. Tide gage damaged by storm - no record after 2000 PST on 12th.
Hoquiam FAA	12	28.66	1859	48 S	2058	75	2058			2.36	
Longview	12			88	1725						
McChord Field	12	28.87	1856	52 S	2025	87	2025				
Naselle	12			150	0100-0200	160	0100-0200				At about 2,000 ft. elevation.
Neah Bay	12							10.3	1600		Predicted tide 8.9.
Neah Bay	13							10.1	0030		Predicted tide 8.6.
Olympia WBAS	12	28.83	1905	58 SW	1920	78	1920			1.66	
Paine Field	12			52 S	2206	80	2206				
Renton FAA Tower	12			46 SSE	2000	100	2000				
Seattle WBO	12			65 SW†	2047			13.5	1530	0.58	Predicted tide 11.9.
Seattle WBO	13							12.8	0400		Predicted tide 11.9.
Seattle WBO	13							13.2	1600		Predicted tide 11.9.
Seattle NAS Sand Point	12	28.91	1855	40 S	2055	59	2055			0.47	
Seattle-Tacoma WBAS	12	28.88	1930	44 SSW	2331	58	2057			0.33	
Seattle WBAS Boeing Field	12	28.91	1858	44 SSE	1958	66	1958			0.33	
Tatoosh Island WBO	12	28.72	2145	50 E	1652	78	1749			2.01	
The Dalles FAA	12	29.13	1758	17 SW	1958	29	1958				
Toledo FAA	12	28.70	1758	58 S	1858	88	1858			1.69	
Vancouver (Wash.)	12					92					
Whidbey Island NAS	12	28.90	2155	41 SSE	2230	65	2230				
Whidbey Island Sea Plane Base	12			46	2100-2200	90	2142				Average wind speed for hour and peak gust from recorder.
Willapa Harbor	12			60 SW†	2045					1.95	

+ Pacific Standard Time
† Fastest Mile
* Precipitation October 10-13, 1962
# Above Mean Low Water

STORM SUMMARY

OCTOBER 1962

STATE	TORNADOES					HAILSTORMS				WINDSTORMS				LIGHTNING				‡ HEAVY SNOWSTORMS AND BLIZZARDS				# ICE STORMS				Ø ALL OTHER			
								†DAMAGE				†DAMAGE				†DAMAGE				†DAMAGE				†DAMAGE				†DAMAGE	
	NUMBER	DAYS	DEATHS	INJURIES	†DAMAGE	DEATHS	INJURIES	PROPERTY	CROPS	DEATHS	INJURIES	PROPERTY	CROPS	DEATHS	INJURIES	PROPERTY	CROPS	DEATHS	INJURIES	PROPERTY	CROPS	DEATHS	INJURIES	PROPERTY	CROPS	DEATHS	INJURIES	PROPERTY	CROPS
Alabama														1	2	0	0												
Alaska										0	0	5	0																
Arizona	2	1	0	0	3																								
Arkansas						0	0	0	4	0	0	4	0																
California										3	25	5	6													2	0	6	5
Colorado						0	0	6	4	0	1	4	0	0	0	5	0									0	0	4	3
Connecticut																										0	0	4	0
Delaware *																													
Florida														0	1	0	0												
Georgia																										0	0	5	0
Hawaii *																													
Idaho *																													
Illinois						0	0	4	5	0	0	4	0																
Indiana										0	1	5	3																
Iowa						0	0	4	4					0	0	4	0												
Kansas								3	4																				
Kentucky *																													
Louisiana										0	0	5	0	0	0	?	0												
Maine										1	4	6	4													0	0	5	0
Maryland						0	0	4	4	0	0	4	2	0	0	3	0												
Massachusetts	1	1	0	0	4					1	1	5	3													0	0	7	0
Michigan										0	0	4	0																
Minnesota *																													
Mississippi										0	0	?	5																
Missouri	1	1	0	0	5					0	0	5	0																
Montana																						0	0	5	0				
Nebraska *																													
Nevada *																													
New Hampshire										0	0	4	3													0	0	5	0
New Jersey																										0	0	3	0
New Mexico	1	1	0	0	0	0	0	3	4	0	0	4	0																
New York															2	4										5		5	
North Carolina										0	0	4	4																
North Dakota *																													
Ohio *																													
Oklahoma						0	0	?	?																	0	0	?	?
Oregon										24	100's	8	7																
Pennsylvania														0	0	5	0												
Puerto Rico *																													
Rhode Island																										0	0	5	0
South Carolina										2	0	0	0																
South Dakota *																													
Tennessee										0	0	5	0													0	0	3	0
Texas	2	2	0	0	4	0	0	?	5	0	0	5	0	0	1	4	0									0	0	?	0
Utah										0	0	5	0																
Vermont										0	0	0	3													0	0	4	0
U.S. Virgin Is. *																													
Virginia *																													
Washington										7	218	8	5																
West Virginia *																													
Wisconsin	2	2	0	0	4																								
Wyoming *																													

* No occurrence of storms or unusual weather phenomena.
‡ Includes heavy sleet storm.
# Freezing drizzle and freezing rain, commonly known as glaze.
ø For breakdown of "All Others", and for detailed listing of other storms, see the U. S. Weather Bureau monthly publication STORM DATA.

† Storm damages are placed in categories varying from 1 to 9 as follows:

1	Less than $50
2	$50 to $500
3	$500 to $5,000
4	$5,000 to $50,000
5	$50,000 to $500,000
6	$500,000 to $5,000,000
7	$5,000,000 to $50,000,000
8	$50,000,000 to $500,000,000
9	$500,000,000 to $5,000,000,000

GENERAL SUMMARY OF RIVER AND FLOOD CONDITIONS

OCTOBER 1962

Flooding occurred on streams in the south-central coastal sections of Puerto Rico on October 15. Some people were evacuated in the early morning from low areas along the rivers near Ponce and Santa Isabel. The flood waters covered the roads and bridges from Ponce to Santa Isabel and in the Salinas-Guayama areas. As the early morning floods started to recede, a new outbreak of showers and thunderstorms caused the swollen rivers and streams to rise again to above flood stage. All road traffic between Salinas and Ponce was interrupted. Many small communities in the Ponce-Salinas area were isolated by 6 p. m. on the 15th.

A major storm system moved through northern California during October, causing record amounts of rainfall at many stations. Peak river crests in the Sacramento Basin were unprecedented for so early in the season. It was the first time that flow has occurred in October over Freemont Weir into Yolo Bypass. Flooding reported elsewhere in continental United States was mostly minor.

ATLANTIC SLOPE DRAINAGE

A 3-day "northeaster" on the 5th to the 7th of the month, reinforced at the end by the outer fringes of hurricane Daisy, brought torrential rains to most of coastal Maine. Many small streams in southern Maine overflowed, flooding some cellars and road sections. All the major rivers rose sharply, but remained within their banks. Streams fell rapidly after the storm.

Some minor flooding occurred in the headwaters of the Merrimack River Basin in New Hampshire on the 7th. Only minor rises occurred along the main streams. This rise was due to rainfall ranging from about 5. 0 to 7. 5 inches on the 5th to the 7th. The antecedent conditions over most of the area was exceedingly dry, so very little runoff occurred. Our observer at Woodstock, N. H., remarked that he had never seen so much rain have so little affect on the Pemigewasset River.

Exceptionally heavy rain from the afternoon of the 5th through the 7th produced minor flooding in southeastern Massachusetts from the 6th through the 10th. The Weather Bureau Airport Station at Boston, Mass., reported 7. 01 inches of rain in 60 hours. Amounts were heavier to the west. The average over the Charles River Basin was around 9 inches. Neither the Charles River at Charles River Village nor the Neponset River at Norwood, Mass., reached flood stage. At Charles River Village, the crest was 3. 76 feet (flood stage 4 feet) at 5 p. m. on the 10th. At Norwood, the Neponset crested at 8. 1 feet at noon on the 7th (flood stage 9 feet). Flash flooding did considerable damage in the Greater Boston area. The rapid fall of rain pouring into low basins flooded thousands of cellars, roadways, and underpasses.

MISSISSIPPI SYSTEM

Missouri Basin. --Minor flooding occurred on the Black Vermillion River at Frankfort, Kans., on the 6th due to rainfall ranging from 1. 5 to 2. 5 inches. Over an inch of rain fell immediately before the rises. Locally heavy thunderstorms on the night of the 19th in extreme south-central Nebraska and north-central Kansas ranged up to 4. 42 inches at Hebron, Nebr., and 4. 52 inches at Stockton 9N, Kans. Subsequent rises near flood stage occurred on the Little Blue River at Fairbury, Nebr., and on the Big Blue River at Barneston, Nebr., and Blue Rapids, Kans. Negligible damages occurred on the Black Vermillion River.

Heavy rains on the 12th and 13th in west-central Missouri caused minor flooding on the Little Blue and Blackwater Rivers on the 13th. Several stations reported rainfall amounts between 4. 5 and 5. 5 inches. The Little Blue crested at Lake City, Mo., at 19. 5 feet on the morning of the 13th, 1. 5 feet above flood stage. The Blackwater River crested at 24. 5 feet during the night of the 13th at Valley City, Mo., (flood stage 20 feet). No significant damage occurred.

WEST GULF OF MEXICO DRAINAGE

Flash flooding developed on smaller streams in the northern portion of Dallas County during the early morning of the 8th. The Trinity River reached a crest of 30. 3 feet at Dallas, Tex., on the 8th (flood stage 30 feet). White Rock Creek, in northeast Dallas County, reached the highest stage of record. Most of the water from White Rock Creek was impounded by White Rock Lake. Flooding diminished from central Dallas County southward, then developed again later in the day through Hill, southern Ellis, and Navarro Counties, causing some flooding along Chambers and Richland Creeks. This flooding was due to rainfall ranging from 6 to 7. 5 inches during the 8th. Some damage resulted from the flash flooding in the urban areas of northern Dallas County. There was little or no damage reported along the major streams. Some minor flooding occurred towards the end of the month at the East Fork of the Trinity at Rockwall, Tex.

Flash flooding occurred on the extreme upper Frio River on the 28th and 29th due to rainfall ranging from 2 to 5 inches. Low water crossings were closed for a short time.

GULF OF CALIFORNIA DRAINAGE

A brief flash flood occurred on Indian Wash in the northeastern section of Grand Junction, Colo., on the 19th. This is normally a dry wash which drains the foothills to the northeast. Only light rains fell in the valley at the time.

Great Basin. --Some minor flooding occurred in low areas along Piute Creek which drains into the Susan River near Susanville, Calif. No flooding occurred along the main stem of the Susan River. Minor flooding occurred on the Truckee River in the lowland grazing areas near Vista, Nev., downstream from Reno. Flood stage was not reached and no damage occurred. The minor flooding in the Great Basin was due to heavy rains from the 10th to the 14th.

PACIFIC SLOPE DRAINAGE

California Coast Drainage Basins. --A major storm system moved through northern California October 8 through October 14, causing record amounts of rainfall at many stations. The rainfall totals during that period ranged up to 26. 01 inches at the Brush Ranger Creek Station in the Feather Basin. In a band from San Francisco Bay northeastward to the 4, 000-foot level in the Sierra Nevada Mountains, most stations exceeded their 24-hour and 48-hour rainfall records. As a result of this storm, Sacramento recorded the greatest October total (6. 85 inches) for 113 years of record. Peak river crests on streams draining the Sacramento Basin were unprecedented for so early in the season. In total, this is the first time that flow has occurred in October over Freemont Weir into Yolo Bypass. The flow was so great that all three major island tracts in the bypass were flooded.

Rainfall in the Russian River Basin during the 5-day period from the 10th to the 14th averaged 8. 5 to 12. 0 inches, with Guerneville and Healdsburg having close to 10 inches. Almost all but 10 percent of the total rainfall occurred during the 48-hour period from 8 a. m. of the 11th to 8 a. m. of the 13th. At Guerneville, the river rose from a normal level of 4. 5 feet at 8 a. m. on the 11th to 11. 0 feet at 8 a. m. of the 12th to a crest of 25. 5 feet around 9 a. m. on the 13th. This crest was only 3. 5 feet below flood stage. Heavy rains also occurred in the Napa River Basin, with St. Helena recording a total of almost 12 inches and Napa 10 inches. Tributary streams ran fairly high, but no flooding of the Napa resulted from the runoff. Only the second of the two storms gave any appreciable rains in the Pajaro and the Salinas Basin.

Columbia Basin. --Minor streamflow rises occurred in practically all rivers of the Columbia Basin west of the Cascades from October 8 to 12, as the result of successive storm-passages through western Oregon and Washington prior to and during that period. East of the Cascades the lower Snake River at Clarkston, Wash. , rose from a base flow of near 25, 000 c. f. s. during the first week of October to double crests of near 60, 000 c. f. s. on the 13th and the 15th.

FLOOD STAGE DATA

(All dates in October unless otherwise specified)

OCTOBER 1962

River and station	Flood stage	Above flood stages -dates		Crest*	
		From–	To–	Stage	Date
	Ft.			*Ft.*	
MISSISSIPPI SYSTEM					
Missouri Basin					
Black Vermillion: Frankfort, Kans.	19	6	6	21.0	6
Little Blue: Lake City, Mo.	18	13	13	19.5	13
Blackwater: Valley City, Mo.	20	13	13	24.5	13
WEST GULF OF MEXICO DRAINAGE					
East Fork Trinity: Rockwall, Tex.	10	28	29	10.3	29
Trinity: Dallas, Tex.	30	8	8	30.3	8
PACIFIC SLOPE DRAINAGE					
Sacramento Basin					
Sacramento: Colusa Weir, Calif.	62	13	15	64.8	14
Tisdale Weir, Calif.	45	13	17	48.3	15
Fremont Weir, Calif.	33	13	18	38.3	15

* Provisional

RAWINSONDE DATA

Average monthly values

OCTOBER 1962

Standard pressure surface (mb.)	ALBANY, N. Y. 1 5 MB					
	Number of observations	Dynamic height	Temperature	Relative humidity	Wind Direction	Wind Speed
SURFACE	31	86	6.3	85	277	2.5
1000	31	127			268	3.3
950	31	551	7.6	70	282	7.2
900	31	995	5.5	69	295	9.5
850	31	1,461	3.6	70	295	13.0
800	31	1,952	1.6	66	289	15.5
750	31	2,473	-.3	62	283	19.0
700	31	3,022	-2.6	60	277	22.7
650	31	3,603	-5.5	57	276	27.0
600	31	4,232	-8.7	49	272	28.2
550	31	4,901	-12.6	46	269	29.7
500	31	5,625	-17.3	43	267	31.1
450	31	6,403	-22.8	43	265	34.4
400	31	7,262	-28.6	40	269	38.7
350	31	8,206	-35.1		267	43.3
300	31	9,265	-42.1		267	47.6
250	31	10,480	-49.0		270	49.4
200	31	11,926	-54.3		268	50.1
175	30	12,790	-56.1		271	46.0
150	30	13,767	-57.8		275	42.0
125	30	14,913	-59.5		273	33.2
100	29	16,302	-59.8		271	23.3
80	29	17,698	-59.6		273	19.2
70	29	18,536	-59.0		275	15.2
60	29	19,503	-58.1		281	10.5
50	29	20,651	-58.1		282	7.8
40	29	22,061	-56.6		275	6.0
30	28	23,891	-54.9		270	8.5
25	28	25,060	-53.4		272	10.1
20	28	26,502	-51.4		265	14.4
15	24	28,372	-49.7		264	21.8
10	5	31,058	-47.8			

Standard pressure surface (mb.)	ALBUQUERQUE, N. MEX. 841 MB					
	Number of observations	Dynamic height	Temperature	Relative humidity	Wind Direction	Wind Speed
SURFACE	31	1,619	9.1	72	99	3.7
1000	31	153				
950	31	584				
900	31	1,042				
850	31	1,528				
800	31	2,035	10.9	50	202	1.4
750	31	2,568	8.1	51	273	6.6
700	31	3,137	4.6	51	269	9.7
650	31	3,732	1.4	45	268	10.7
600	31	4,378	-2.0		265	11.9
550	31	5,057	-6.0		264	13.2
500	31	5,805	-11.0		259	15.3
450	31	6,597	-16.8		258	16.1
400	31	7,481	-23.4		257	16.1
350	31	8,444	-30.5		255	17.7
300	31	9,521	-38.4		249	26.0
250	31	10,752	-46.8		252	31.9
200	30	12,206	-54.6		257	39.2
175	30	13,053	-58.7		261	36.5
150	30	14,012	-62.8		267	32.1
125	30	15,123	-67.6		274	25.5
100	29	16,459	-70.3		273	19.2
80	28	17,789	-68.8		288	10.1
70	26	18,594	-66.3		298	8.0
60	24	19,535	-64.1		301	4.3
50	23	20,662	-61.2		5	3.5
40	20	22,064	-58.4		357	2.9
30	19	23,889	-54.5		289	4.5
25	18	25,066	-52.4		282	5.6
20	17	26,523	-50.2		296	8.0
15	14	28,407	-49.0		276	17.5
10						

Standard pressure surface (mb.)	AMARILLO, TEXAS 893 MB					
	Number of observations	Dynamic height	Temperature	Relative humidity	Wind Direction	Wind Speed
SURFACE	31	1,095	10.1	71	255	3.5
1000	31	141				
950	31	575				
900	31	1,036	6.3			
850	31	1,514	14.0	47	271	8.4
800	31	2,023	12.3	43	268	9.3
750	31	2,558	9.4	43	270	9.1
700	31	3,131	6.0	38	271	9.7
650	31	3,729	2.3	39	274	10.3
600	31	4,376	-1.6	37	267	10.7
550	31	5,055	-5.9	30	271	14.0
500	31	5,804	-10.7		279	17.5
450	31	6,598	-16.3		278	20.6
400	31	7,482	-22.8		279	22.3
350	31	8,447	-30.0		276	26.2
300	31	9,527	-38.1		270	32.1
250	31	10,758	-47.1		270	40.0
200	31	12,209	-55.0		274	42.9
175	31	13,055	-58.8		272	40.8
150	30	14,016	-63.0		272	39.4
125	30	15,126	-67.4		274	33.8
100	29	16,463	-70.0		278	22.7
80	26	17,795	-67.9		275	13.0
70	25	18,610	-66.0		295	5.2
60	23	19,545	-63.4		305	4.1
50	22	20,665	-61.0		303	1.4
40	20	22,065	-58.1		295	1.9
30	20	23,893	-54.0		288	5.8
25	20	25,070	-51.7		272	7.0
20	19	26,520	-49.9		276	10.1
15	16	28,429	-47.8		271	16.3
10						

Standard pressure surface (mb.)	ANCHORAGE, ALASKA 997 MB					
	Number of observations	Dynamic height	Temperature	Relative humidity	Wind Direction	Wind Speed
SURFACE	31	29	2.2	84	223	.6
1000	31	4			166	2.9
950	31	420	2.6	66	110	1.7
900	31	855	.5	64	136	4.5
850	31	1,312	-2.1	64	141	8.0
800	31	1,791	-5.2	66	157	9.7
750	31	2,297	-8.5	63	166	10.7
700	31	2,827	-12.0	60	176	9.1
650	31	3,391	-15.7	59	177	11.3
600	31	3,990	-19.5	51	183	12.0
550	31	4,627	-23.9	47	191	13.0
500	31	5,320	-28.4	42	194	13.6
450	31	6,067	-33.4	39	194	16.1
400	31	6,886	-38.8		203	17.7
350	31	7,791	-44.7		210	19.6
300	31	8,809	-50.5		218	20.0
250	31	9,989	-52.5		225	22.2
200	31	11,440	-50.1		236	20.8
175	30	12,312	-49.8		238	21.8
150	30	13,320	-50.0		238	22.3
125	30	14,509	-50.6		242	21.2
100	30	15,964	-50.8		244	20.2
80	28	17,423	-50.9		246	20.4
70	28	18,295	-51.2		248	18.3
60	28	19,293	-51.6		251	18.8
50	28	20,474	-52.3		259	19.6
40	27	21,920	-52.7		264	16.1
30	27	23,777	-52.7		272	16.9
25	27	24,952	-53.4		285	16.3
20	25	26,403	-53.6		286	20.4
15	22	28,260	-53.2		295	22.2
10						

Standard pressure surface (mb.)	ANNETTE, ALASKA 1005 MB					
	Number of observations	Dynamic height	Temperature	Relative humidity	Wind Direction	Wind Speed
SURFACE	31	37	8.8	83	132	6.6
1000	31	79			155	10.3
950	31	501	6.3	76	161	14.4
900	31	944	3.4	76	175	16.1
850	31	1,406	.5	76	184	17.3
800	31	1,891	-2.0	73	191	18.1
750	31	2,401	-4.6	70	201	19.4
700	31	2,943	-7.6	62	204	19.6
650	31	3,513	-10.7	57	210	20.8
600	31	4,129	-14.3	53	213	24.9
550	31	4,777	-18.5	51	223	24.7
500	31	5,489	-23.3	49	230	28.0
450	31	6,244	-28.5	52	232	27.4
400	31	7,087	-34.5	48	234	29.3
350	31	8,008	-40.8		227	26.8
300	30	9,038	-48.0		227	28.0
250	30	10,226	-51.9		228	29.0
200	29	11,660	-51.7		239	27.2
175	28	12,535	-52.0		231	26.2
150	26	13,532	-53.2		237	22.3
125	25	14,697	-54.5		242	21.2
100	25	16,122	-55.0		224	16.5
80	25	17,548	-55.1		240	15.7
70	24	18,400	-55.4		237	13.4
60	24	19,383	-55.8		247	13.4
50	23	20,540	-55.4		250	11.1
40	22	21,964	-55.9		263	10.1
30	21	23,784	-56.2		275	8.4
25	18	24,942	-56.3			
20	13	26,366	-55.6			
15	12	28,204	-55.0			
10	11	30,798	-53.6			

Standard pressure surface (mb.)	ATHENS, GA. 990 MB					
	Number of observations	Dynamic height	Temperature	Relative humidity	Wind Direction	Wind Speed
SURFACE	31	246	12.1	91	322	2.7
1000	31	158				
950	31	594	16.0	63	307	5.4
900	31	1,053	13.7	62	300	6.0
850	31	1,533	11.2	61	300	8.2
800	31	2,038	9.1	48	295	10.1
750	31	2,567	6.7	41	292	11.9
700	31	3,135	3.5	42	285	13.4
650	31	3,729	.6	40	280	16.3
600	31	4,373	-3.0	39	279	19.8
550	31	5,050	-7.1	34	279	22.5
500	31	5,794	-11.5	35	280	26.2
450	31	6,587	-16.8		282	30.7
400	31	7,470	-23.0		279	32.8
350	31	8,435	-30.2		277	35.2
300	31	9,515	-38.4		280	40.4
250	31	10,745	-47.3		278	42.2
200	31	12,194	-55.7		279	47.2
175	31	13,037	-59.5		282	44.3
150	31	13,992	-63.6		280	37.5
125	31	15,101	-67.2		280	35.8
100	31	16,441	-68.7		284	24.3
80	31	17,785	-66.4		287	12.0
70	31	18,606	-64.0		287	6.4
60	31	19,549	-61.5		272	4.7
50	31	20,688	-58.6		260	4.1
40	29	22,101	-55.9		276	5.4
30	29	23,948	-52.7		277	8.9
25	28	25,130	-51.2		269	8.0
20	26	26,592	-47.9		269	14.0
15	22	28,496	-46.3		277	21.2
10						
7						

Standard pressure surface (mb.)	BARROW, ALASKA 1011 MB					
	Number of observations	Dynamic height	Temperature	Relative humidity	Wind Direction	Wind Speed
SURFACE	31	8	-7.8	85	61	8.2
1000	31	89	-8.0	83	65	9.9
950	31	484	-9.9	82	75	11.1
900	31	903	-11.2	80	78	8.7
850	31	1,341	-12.4	74	81	7.6
800	31	1,803	-14.1	67	93	6.2
750	31	2,290	-16.1	62	115	5.1
700	31	2,809	-18.6	58	150	4.9
650	31	3,355	-21.7	53	168	5.8
600	31	3,945	-25.2	49	173	5.2
550	31	4,566	-29.4	47	167	7.0
500	31	5,248	-33.9	43	196	8.5
450	31	5,974	-38.6		208	9.9
400	31	6,783	-43.7		210	12.2
350	31	7,669	-49.3		208	14.0
300	31	8,668	-53.7		214	15.7
250	31	9,839	-53.5		222	16.1
200	31	11,285	-50.9		230	16.3
175	31	12,155	-50.7		234	16.3
150	31	13,159	-50.7		237	18.1
125	30	14,342	-50.7		240	20.0
100	30	15,794	-51.1		242	20.8
80	30	17,241	-52.2		245	22.7
70	30	18,110	-52.9		247	25.1
60	29	19,091	-53.6		252	25.5
50	29	20,261	-54.2		256	28.2
40	29	21,692	-54.4		260	29.9
30	27	23,540	-54.8		262	35.2
25	27	24,706	-55.1		264	36.7
20	27	26,129	-55.5		268	39.4
15	27	27,964	-55.3		275	45.5
10	24	30,561	-54.8		285	53.0
7	12	32,832	-53.7			

Standard pressure surface (mb.)	BARTER IS., ALASKA 1008 MB					
	Number of observations	Dynamic height	Temperature	Relative humidity	Wind Direction	Wind Speed
SURFACE	30	15	-5.7	83	96	3.5
1000	30	74			93	6.4
950	30	473	-6.0	80	90	6.4
900	30	898	-7.5	77	106	4.7
850	30	1,342	-8.8	70	147	2.1
800	30	1,811	-10.6	63	188	3.7
750	30	2,301	-13.1	59	212	4.9
700	30	2,828	-16.4	57	220	6.2
650	30	3,380	-19.4	52	233	9.3
600	30	3,972	-23.3	48	236	8.7
550	30	4,599	-27.5	51	241	14.2
500	30	5,285	-31.5	45	241	18.7
450	30	6,015	-36.5		238	18.5
400	30	6,830	-42.1		238	23.5
350	30	7,722	-48.0		237	25.1
300	30	8,725	-53.3		236	28.6
250	30	9,894	-54.1		238	29.3
200	30	11,336	-51.2		246	27.6
175	30	12,204	-51.0		244	27.0
150	30	13,207	-51.0		247	27.4
125	30	14,392	-51.2		248	27.0
100	30	15,842	-51.4		249	26.6
80	30	17,288	-52.0		252	26.8
70	30	18,152	-52.7		255	28.2
60	30	19,144	-53.3		256	29.0
50	30	20,316	-54.0		259	31.5
40	27	21,745	-54.4		262	32.6
30	26	23,578	-55.3		272	33.4
25	26	24,740	-55.6		273	35.6
20	25	26,163	-55.8		276	41.4
15	19	27,979	-56.1		283	44.9
10						
7						

Standard pressure surface (mb.)	BETHFL, ALASKA 996 MB					
	Number of observations	Dynamic height	Temperature	Relative humidity	Wind Direction	Wind Speed
SURFACE	31	39	-1.6	89	43	1.7
1000	31	3			11	4.1
950	31	412	-1.1	76	64	4.5
900	31	843	-3.3	72	89	2.1
850	31	1,293	-5.6	67	144	2.7
800	31	1,767	-8.3	62	177	2.7
750	31	2,263	-10.9	55	195	3.7
700	31	2,793	-13.7	51	212	4.5
650	31	3,349	-17.1	48	212	4.9
600	31	3,949	-20.8	47	217	6.8
550	31	4,582	-24.9	47	215	7.6
500	31	5,275	-29.1	48	219	9.1
450	31	6,015	-34.5	44	218	11.1
400	31	6,834	-40.2		222	13.2
350	31	7,735	-45.6		226	18.1
300	31	8,752	-50.0		235	19.0
250	31	9,941	-49.9		231	19.4
200	30	11,394	-49.7		245	19.0
175	30	12,269	-49.3		243	20.4
150	30	13,278	-49.7		241	19.4
125	29	14,469	-49.6		246	18.8
100	29	15,928	-50.0		245	19.6
80	29	17,385	-50.3		248	20.2
70	28	18,253	-50.7		242	18.8
60	28	19,253	-50.8		244	19.8
50	28	20,439	-51.2		251	16.1
40	28	21,891	-51.0		251	17.7
30	28	23,762	-51.0		262	16.9
25	28	24,948	-51.0		266	18.3
20	25	26,405	-51.1		273	18.5
15	19	28,306	-51.1		291	17.3
10						
7						

Standard pressure surface (mb.)	BISMARCK, N. DAK. 956 MB					
	Number of observations	Dynamic height	Temperature	Relative humidity	Wind Direction	Wind Speed
SURFACE	31	505	4.3	82	339	.6
1000	31	133				
950	31	560			316	2.3
900	31	1,002	8.9	54	296	4.7
850	31	1,474	6.8	50	299	8.4
800	31	1,972	4.5	45	291	10.7
750	31	2,496	2.2	40	290	13.8
700	31	3,050	-.4	38	292	18.1
650	31	3,634	-3.6	37	295	21.6
600	31	4,268	-7.3	37	295	24.7
550	31	4,933	-11.6	37	297	27.6
500	31	5,666	-16.3	40	296	31.9
450	31	6,442	-21.8	37	293	34.0
400	31	7,310	-27.7	36	293	40.0
350	31	8,257	-34.8		293	45.9
300	31	9,316	-42.7		293	51.5
250	30	10,525	-50.7		295	50.9
200	30	11,964	-54.9		293	47.2
175	30	12,815	-56.5		288	42.9
150	30	13,789	-58.6		286	39.4
125	30	14,930	-60.7		289	36.1
100	30	16,316	-61.0		285	24.3
80	29	17,710	-60.4		288	14.4
70	29	18,547	-60.0		281	11.7
60	29	19,508	-59.2		293	7.0
50	28	20,651	-58.5		297	3.9
40	26	22,060	-58.0		301	3.3
30	23	23,875	-56.4		268	3.9
25	21	25,029	-55.5		276	4.1
20	13	26,506	-54.2			
15						
10						
7						

Standard pressure surface (mb.)	BOISE, IDAHO 918 MB					
	Number of observations	Dynamic height	Temperature	Relative humidity	Wind Direction	Wind Speed
SURFACE	31	868	7.0	71	151	3.9
1000	31	157				
950	31	587				
900	31	1,033	10.1	61	198	1.7
850	31	1,510	10.1	50	294	3.5
800	31	2,011	8.0	47	279	5.4
750	31	2,539	5.4	43	272	9.7
700	31	3,102	2.5	42	265	11.3
650	31	3,696	-.7	39	257	13.8
600	31	4,333	-4.5	36	257	15.0
550	31	5,008	-8.9	38	258	18.7
500	31	5,745	-14.0		257	21.2
450	31	6,532	-19.6		256	21.2
400	31	7,401	-26.3	33	257	21.4
350	30	8,347	-33.9		263	18.1
300	30	9,408	-42.3		270	17.1
250	30	10,618	-50.9		274	18.5
200	28	12,047	-57.3		279	15.7
175	25	12,903	-58.9		276	15.7
150	23	13,880	-60.5		279	20.0
125	23	15,009	-63.1		284	17.7
100	18	16,373	-65.0		275	15.9
80	17	17,738	-64.6		311	9.9
70	16	18,562	-63.6		315	8.4
60	16	19,506	-62.6		326	6.6
50	16	20,634	-61.3		329	7.2
40	16	22,021	-60.6		343	3.7
30	15	23,821	-58.3		333	6.2
25	13	24,977	-57.3		319	8.9
20	11	26,390	-55.5		303	9.1
15	9	28,237	-53.4			
10						
7						
5						

Standard pressure surface (mb.)	BROWNSVILLE, TEXAS 1014 MB					
	Number of observations	Dynamic height	Temperature	Relative humidity	Wind Direction	Wind Speed
SURFACE	31	7	22.6	88	141	2.5
1000	31	131	24.5	76	141	6.6
950	31	580	22.1	70	151	12.4
900	31	1,050	19.2	66	159	11.5
850	31	1,540	16.7	60	167	8.7
800	31	2,054	13.9	55	170	5.2
750	31	2,594	11.0	50	168	3.5
700	31	3,169	7.9	46	244	1.7
650	31	3,775	4.5	43	291	3.9
600	31	4,425	.9	36	298	6.4
550	31	5,114	-3.3	32	298	6.0
500	31	5,867	-7.7		293	8.4
450	31	6,670	-13.1		286	10.5
400	31	7,566	-18.8		279	14.4
350	31	8,547	-25.9		284	21.4
300	31	9,645	-34.3		284	26.4
250	31	10,894	-44.0		285	31.3
200	31	12,354	-55.4		287	35.9
175	31	13,194	-61.4		286	32.8
150	31	14,136	-67.0		282	27.4
125	31	15,222	-72.4		283	19.6
100	31	16,522	-75.3		291	9.7
80	30	17,824	-72.1		43	3.3
70	30	18,622	-68.2		77	6.4
60	28	19,554	-63.7		89	6.6
50	27	20,684	-59.9		100	7.0
40	26	22,086	-56.4		92	7.8
30	26	23,928	-52.4		88	8.9
25	26	25,114	-49.6		89	10.1
20	25	26,583	-47.3		77	11.5
15	22	28,487	-45.8		82	8.9
10	18	31,207	-42.6		115	9.5
7	12	33,650	-38.6			
5						

Standard pressure surface (mb.)	BUFFALO, N. Y. 990 MB					
	Number of observations	Dynamic height	Temperature	Relative humidity	Wind Direction	Wind Speed
SURFACE	31	218	8.0	85	215	3.3
1000	31	131				
950	31	557	9.1	74	238	7.6
900	31	1,004	6.6	74	263	11.5
850	31	1,472	4.2	71	272	12.8
800	31	1,964	1.8	65	277	15.2
750	31	2,478	-.5	62	275	18.5
700	31	3,032	-3.1	59	274	21.4
650	31	3,614	-6.0	50	276	23.7
600	31	4,240	-9.7	46	279	25.3
550	31	4,905	-13.8	40	278	28.0
500	31	5,625	-18.2	38	272	30.5
450	31	6,402	-23.4		273	31.3
400	31	7,258	-29.6		273	34.8
350	31	8,197	-36.6		275	37.7
300	31	9,250	-43.4		273	44.3
250	31	10,462	-49.1		273	45.1
200	31	11,911	-53.7		272	43.9
175	31	12,766	-55.5		274	41.6
150	31	13,744	-57.3		277	37.3
125	30	14,891	-58.9		273	26.6
100	30	16,288	-59.9		272	25.1
80	30	17,683	-59.2		273	17.9
70	30	18,525	-59.2		269	15.2
60	29	19,482	-58.5		275	12.4
50	29	20,629	-58.1		283	11.5
40	29	22,040	-56.5		283	9.3
30	29	23,870	-55.1		280	9.1
25	28	25,038	-53.2		274	9.9
20	26	26,482	-51.4		266	12.0
15	16	28,323	-50.8		264	17.9
10						
7						
5						

Standard pressure surface (mb.)	BURRWOOD, LA. 1016 MB					
	Number of observations	Dynamic height	Temperature	Relative humidity	Wind Direction	Wind Speed
SURFACE	31	3	22.8	82	84	3.7
1000	31	144	22.5	73	80	4.7
950	31	593	19.4	73	106	3.7
900	31	1,053	17.1	60	137	2.9
850	31	1,540	14.8	56	234	.6
800	31	2,050	12.0	54	300	3.1
750	31	2,589	9.3	47	297	5.4
700	31	3,158	6.6	41	298	7.0
650	31	3,763	3.5	36	292	8.4
600	31	4,408	-.2	35	291	10.9
550	31	5,095	-4.3	30	297	8.4
500	31	5,845	-9.0	26	285	13.6
450	31	6,653	-14.6		286	17.3
400	31	7,535	-20.8		287	20.2
350	31	8,508	-27.8		287	23.9
300	31	9,598	-35.7		288	26.8
250	31	10,842	-45.0		282	30.5
200	31	12,298	-55.3		282	35.4
175	31	13,140	-60.4		283	35.4
150	31	14,089	-65.3		282	32.3
125	31	15,186	-70.0		285	26.8
100	31	16,504	-72.1		291	19.2
80	30	17,824	-69.8		311	8.5
70	30	18,640	-66.9		339	2.9
60	28	19,562	-62.3		358	.6
50	28	20,696	-58.9		245	1.2
40	26	22,107	-55.7		10	.8
30	26	23,955	-51.7		65	2.7
25	26	25,143	-49.1		65	3.1
20	24	26,609	-47.1		59	2.3
15	23	28,519	-45.8		312	2.9
10	21	31,225	-43.4		260	1.9
7	16	33,636	-40.0		251	13.4
5	6	35,939	-36.8			

Standard pressure surface (mb.)	CANTON IS., PACIFIC AREA 1011 MB					
	Number of observations	Dynamic height	Temperature	Relative humidity	Wind Direction	Wind Speed
SURFACE	31	4	26.5	76	71	10.7
1000	31	101	25.7	76	77	12.4
950	31	548	22.1	78	91	16.1
900	31	1,021	18.7	74	91	17.1
850	31	1,511	16.3	60	93	16.7
800	31	2,026	15.2	40	93	14.4
750	31	2,570	12.6	32	85	10.9
700	31	3,147	9.8	25	90	7.8
650	31	3,754	6.7		94	7.8
600	31	4,412	3.1		94	8.5
550	31	5,106	-1.0		87	6.4
500	31	5,867	-5.4		70	4.1
450	31	6,679	-10.4		29	1.9
400	31	7,584	-16.4		271	1.4
350	31	8,576	-23.2		270	5.2
300	31	9,687	-31.8		266	9.3
250	31	10,949	-42.2		271	12.2
200	31	12,421	-54.5		272	18.7
175	31	13,264	-61.3		273	21.6
150	30	14,205	-68.7		270	22.9
125	30	15,277	-75.7		267	17.9
100	26	16,550	-80.3		273	12.0
80	23	17,822	-75.2		269	10.7
70	23	18,604	-71.4		265	15.0
60	23	19,521	-67.4		259	17.9
50	22	20,622	-64.9		260	3.5
40	22	21,992	-61.8		86	34.0
30	20	23,792	-56.7		92	60.4
25	19	24,958	-53.7		89	58.7
20	19	26,406	-49.7		91	58.3
15	19	28,312	-44.4		92	55.0
10	17	31,085	-36.6		81	5.4
7	9	33,560	-32.8			
5	7	35,936	-32.5			

See reference note at end of table

RAWINSONDE DATA

Average monthly values

OCTOBER 1962

CAPE HATTERAS, N. C.
1015 MB

Standard pressure surface (mb.)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind	
					Direction	Speed
SURFACE	31	4	16.7	84	352	4.1
1000	31	130	17.7	74	348	5.8
950	31	565	15.3	70	337	6.8
900	31	1,025	13.0	66	323	6.0
850	31	1,504	10.6	66	304	5.6
800	31	2,008	8.2	59	278	7.8
750	31	2,536	5.9	53	276	12.2
700	31	3,102	3.5	47	272	15.2
650	31	3,699	.2	44	269	17.9
600	31	4,338	- 3.3	38	269	21.8
550	31	5,012	- 7.2	33	264	23.7
500	31	5,759	-11.2		263	26.6
450	31	6,551	-16.8		263	29.1
400	31	7,434	-23.1		264	32.6
350	31	8,399	-29.7		261	35.8
300	31	9,481	-37.4		259	40.0
250	31	10,716	-46.2		262	42.2
200	31	12,167	-55.6		261	46.4
175	31	13,009	-59.8		265	42.9
150	31	13,966	-62.6		266	39.8
125	30	15,093	-65.4		270	33.2
100	29	16,441	-66.7		270	25.1
80	28	17,794	-65.0		263	13.6
70	28	18,619	-63.0		252	9.9
60	28	19,567	-60.7		255	7.8
50	28	20,708	-58.2		264	7.4
40	28	22,122	-55.4		273	8.4
30	27	23,970	-52.7		269	8.4
25	26	25,155	-50.6		270	11.3
20	26	26,617	-48.4		265	12.4
15	25	28,522	-46.5		266	15.5
10	23	31,219	-43.1		276	20.0
7	8	33,683	-39.4			

CARIBOU, ME.
991 MB

Standard pressure surface (mb.)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind	
					Direction	Speed
SURFACE	31	191	3.1	90	276	2.7
1000	31	113				
950	31	528	3.8	76	301	6.6
900	31	968	2.0	70	308	8.5
850	31	1,428	.5	66	303	10.3
800	31	1,914	- 1.0	58	291	11.9
750	31	2,429	- 3.1	56	283	14.2
700	31	2,971	- 5.7	48	281	15.7
650	31	3,546	- 8.6	48	276	18.5
600	31	4,167	-11.6	45	272	22.3
550	31	4,825	-15.3	42	270	24.5
500	31	5,544	-19.5	42	266	26.0
450	31	6,315	-24.9	40	263	29.3
400	31	7,167	-30.7		259	35.6
350	31	8,101	-37.6		256	39.2
300	31	9,150	-44.1		256	43.9
250	31	10,358	-48.9		259	48.4
200	31	11,814	-51.9		256	48.2
175	30	12,681	-53.2		259	43.5
150	30	13,672	-54.2		258	39.1
125	30	14,837	-56.1		261	31.1
100	30	16,251	-57.2		262	27.6
80	28	17,663	-56.3		264	20.2
70	28	18,511	-57.0		266	15.9
60	28	19,485	-56.7		264	13.4
50	28	20,642	-56.3		262	11.7
40	28	22,061	-55.6		268	9.9
30	27	23,894	-54.5		271	8.5
25	27	25,063	-53.7		267	10.3
20	26	26,503	-52.2		261	14.8
15	26	28,370	-50.7		268	18.7
10	24	31,049	-46.0		267	30.9
7	10	33,357	-46.6			

CHARLESTON, S. C.
1015 MB

Standard pressure surface (mb.)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind	
					Direction	Speed
SURFACE	30	13	14.8	88	349	2.9
1000	30	143	18.1	75	9	3.7
950	30	578	17.1	64	358	4.9
900	30	1,042	15.0	60	347	4.1
850	30	1,526	12.7	52	304	3.5
800	30	2,033	10.9	40	292	6.0
750	30	2,565	8.2	38	296	8.4
700	30	3,136	5.2	37	284	12.0
650	30	3,734	2.2	35	280	15.2
600	30	4,381	- 1.5		277	17.9
550	30	5,064	- 5.7		273	20.4
500	30	5,810	-10.4		276	23.7
450	30	6,610	-15.5		278	26.4
400	30	7,494	-21.7		274	28.0
350	30	8,464	-28.8		273	30.5
300	30	9,550	-37.0		273	32.4
250	30	10,787	-46.1		271	34.0
200	30	12,241	-55.8		272	36.3
175	30	13,083	-59.9		274	37.9
150	30	14,038	-63.7		277	35.4
125	30	15,148	-67.0		279	31.1
100	29	16,495	-69.0		284	21.0
80	29	17,836	-66.6		292	10.1
70	29	18,649	-64.2		282	4.3
60	29	19,596	-61.7		276	2.5
50	29	20,734	-58.4		258	1.7
40	27	22,148	-55.3		270	4.9
30	24	23,996	-52.4		277	4.7
25	24	25,180	-50.8		272	6.4
20	21	26,642	-48.3		269	9.9
15	9	28,566	-45.0			

COLD BAY, ALASKA
996 MB

Standard pressure surface (mb.)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind	
					Direction	Speed
SURFACE	31	30	3.6	85	263	3.3
1000	31	- 6			268	1.9
950	31	408	1.2	77	283	9.3
900	31	843	- 1.5	77	282	9.7
850	31	1,295	- 4.5	80	282	9.9
800	31	1,771	- 6.8	69	273	11.5
750	31	2,270	- 9.3	58	274	13.0
700	31	2,804	-12.3	55	283	13.0
650	31	3,363	-15.5	52	269	14.6
600	31	3,967	-19.1	49	265	17.3
550	30	4,598	-22.9	47	261	16.5
500	30	5,305	-27.3	45	254	18.7
450	30	6,049	-32.2	44	247	20.2
400	30	6,879	-37.6		244	21.6
350	30	7,788	-43.3		241	21.8
300	30	8,816	-47.4		234	22.5
250	29	10,018	-48.6		242	29.7
200	29	11,485	-48.9		246	29.9
175	28	12,355	-49.8		248	31.3
150	28	13,362	-50.4		242	30.7
125	26	14,541	-51.2		241	28.2
100	25	15,995	-51.5		243	27.4
80	25	17,442	-51.6		234	21.0
70	25	18,309	-51.9		232	22.3
60	25	19,306	-51.9		241	20.2
50	25	20,485	-52.4		234	18.1
40	25	21,928	-52.0		241	13.2
30	25	23,791	-51.9		232	11.5
25	25	24,972	-51.6		226	8.9
20	25	26,420	-51.3		243	10.9
15	25	28,292	-50.3		266	9.9
10	21	30,910	-49.9		276	10.7
7	14	33,233	-48.7			

COLUMBIA, MO.
987 MB

Standard pressure surface (mb.)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind	
					Direction	Speed
SURFACE	31	238	11.5	89	191	2.7
1000	31	128				
950	31	559	13.3	70	249	8.7
900	31	1,014	11.7	62	274	12.8
850	31	1,491	9.5	58	273	13.2
800	31	1,992	7.0	59	281	14.8
750	31	2,516	4.3	51	285	17.9
700	31	3,079	1.6	45	286	20.2
650	31	3,670	- 1.6	44	290	23.3
600	31	4,307	- 5.0	41	290	25.8
550	31	4,979	- 9.1	34	292	27.4
500	31	5,718	-13.7		293	29.9
450	31	6,503	-19.0		294	32.4
400	31	7,378	-25.5		293	32.4
350	31	8,333	-32.5		293	36.9
300	31	9,402	-40.2		291	43.7
250	31	10,623	-48.3		286	49.0
200	30	12,063	-54.5		287	53.4
175	29	12,910	-57.2		284	49.5
150	28	13,873	-60.5		288	41.4
125	28	14,999	-63.7		291	35.8
100	27	16,360	-65.4		289	27.0
80	27	17,722	-64.6		290	20.0
70	27	18,544	-63.1		293	13.8
60	26	19,497	-61.2		302	8.7
50	26	20,635	-59.4		314	4.5
40	26	22,038	-57.9		285	4.7
30	25	23,863	-54.8		284	6.0
25	22	25,044	-52.9		290	8.4
20	19	26,506	-51.5		280	11.1
15	6	28,365	-50.4			

DAYTON, OHIO
982 MB

Standard pressure surface (mb.)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind	
					Direction	Speed
SURFACE	31	297	9.5	87	216	1.7
1000	31	142				
950	31	570	11.1	72	240	7.6
900	31	1,021	9.3	70	268	11.9
850	31	1,494	7.2	64	273	13.2
800	31	1,991	4.5	60	269	15.3
750	31	2,515	1.9	54	268	18.7
700	31	3,069	- .6	48	268	21.4
650	31	3,654	- 3.8	47	270	23.7
600	31	4,286	- 7.4	41	271	25.8
550	31	4,955	-11.1	33	273	27.6
500	31	5,686	-16.0		274	30.7
450	31	6,465	-21.4		275	33.0
400	31	7,331	-27.4		276	37.9
350	31	8,279	-33.9		275	41.6
300	31	9,343	-40.9		273	45.9
250	31	10,563	-48.2		275	47.8
200	31	12,012	-54.5		277	48.2
175	31	12,861	-57.1		277	46.4
150	31	13,831	-59.4		278	42.2
125	31	14,964	-62.0		279	34.4
100	31	16,337	-63.6		277	25.6
80	31	17,711	-61.8		282	16.9
70	31	18,543	-61.0		284	11.7
60	31	19,500	-59.8		285	8.9
50	31	20,642	-58.5		286	5.1
40	31	22,048	-57.2		284	4.7
30	29	23,881	-54.3		276	8.5
25	29	25,055	-52.5		276	9.7
20	28	26,509	-50.2		270	12.8
15	19	28,390	-48.2		263	19.8
10						

DENVER, COLO.
840 MB

Standard pressure surface (mb.)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind	
					Direction	Speed
SURFACE	31	1,611	4.2	61	203	3.5
1000	31	166				
950	31	593				
900	31	1,043				
850	31	1,513				
800	31	2,015	10.6	41	285	5.2
750	31	2,547	8.3	40	295	8.0
700	31	3,117	4.7	39	297	9.5
650	31	3,713	.9	36	294	11.5
600	31	4,355	- 2.8	33	299	13.2
550	31	5,031	- 7.3		296	14.0
500	31	5,776	-12.2		293	15.5
450	31	6,564	-17.7		291	18.8
400	31	7,444	-24.1		287	21.4
350	31	8,403	-31.6		281	25.1
300	31	9,475	-40.1		282	29.5
250	31	10,695	-48.8		283	31.3
200	31	12,135	-56.0		279	35.2
175	31	12,976	-58.9		279	35.2
150	30	13,938	-61.9		280	33.4
125	30	15,056	-65.2		280	26.6
100	30	16,405	-67.7		285	21.4
80	30	17,753	-65.6		292	13.0
70	30	18,573	-63.9		290	8.2
60	30	19,517	-62.4		314	6.0
50	30	20,649	-60.2		320	5.2
40	30	22,047	-58.7		326	3.9
30	28	23,871	-55.4		307	6.2
25	27	25,045	-53.8		295	9.1
20	26	26,488	-52.2		283	11.7
15	14	28,373	-50.2		278	15.2

DODGE CITY, KANS.
926 MB

Standard pressure surface (mb.)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind	
					Direction	Speed
SURFACE	31	792	10.1	81	296	3.1
1000	31	143				
950	31	572				
900	31	1,028	13.7	57	298	4.3
850	31	1,510	13.8	42	276	5.4
800	31	2,019	11.5	39	296	6.4
750	31	2,551	8.6	38	287	9.5
700	31	3,123	5.4	37	285	12.6
650	31	3,719	1.4	34	292	13.8
600	31	4,364	- 2.2		293	16.9
550	31	5,043	- 6.6		286	18.3
500	31	5,788	-11.7		285	19.6
450	31	6,579	-17.4		287	23.9
400	31	7,461	-23.9		284	28.6
350	31	8,422	-31.1		282	32.4
300	31	9,497	-39.1		280	34.6
250	31	10,724	-47.6		278	39.6
200	30	12,173	-54.8		277	45.7
175	30	13,022	-57.7		279	43.1
150	30	13,985	-61.7		283	40.2
125	30	15,103	-65.4		283	35.0
100	28	16,453	-67.2		284	25.6
80	28	17,799	-66.0		289	13.8
70	28	18,611	-64.4		295	10.5
60	27	19,559	-62.1		293	8.4
50	27	20,693	-59.7		324	3.7
40	25	22,087	-57.7		303	3.3
30	24	23,921	-54.3		308	6.6
25	24	25,093	-52.6		296	7.8
20	22	26,548	-50.6		280	15.3
15	6	28,473	-47.9			

EL PASO, TEXAS
884 MB

Standard pressure surface (mb.)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind	
					Direction	Speed
SURFACE	31	1,193	12.6	71	344	1.2
1000	31	144				
950	31	579				
900	31	1,044				
850	31	1,529	16.2	45	313	1.2
800	31	2,043	13.4	45	222	3.9
750	31	2,583	10.3	43	243	8.0
700	31	3,154	6.9	37	248	9.1
650	31	3,755	2.9	35	252	11.5
600	31	4,401	- 1.0		250	13.8
550	31	5,084	- 5.1		253	15.9
500	31	5,832	-10.2		250	19.2
450	31	6,634	-15.8		249	21.4
400	31	7,513	-22.1		254	26.2
350	31	8,482	-28.9		254	34.0
300	31	9,567	-37.1		254	40.6
250	31	10,804	-46.0		259	49.5
200	31	12,258	-54.8		261	52.3
175	31	13,102	-60.1		264	47.6
150	31	14,053	-64.9		262	38.9
125	31	15,152	-69.8		265	28.0
100	31	16,469	-72.8		272	15.3
80	31	17,787	-70.0		291	7.8
70	31	18,597	-67.3		341	2.9
60	31	19,522	-64.3		54	3.5
50	31	20,646	-61.0		55	2.9
40	31	22,043	-57.6		35	2.1
30	30	23,878	-53.2		276	4.9
25	30	25,056	-51.9		274	7.4
20	24	26,512	-49.7		265	9.7
15	15	28,387	-48.5		269	20.0
10	5	31,047	-47.2			

ELY, NEV.
811 MB

Standard pressure surface (mb.)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind	
					Direction	Speed
SURFACE	31	1,908	2.4	58	186	7.8
1000	31	178				
950	31	609				
900	31	1,059				
850	31	1,528				
800	31	2,023	7.7	46	171	5.4
750	31	2,555	7.5	37	141	2.5
700	31	3,121	4.3	37	227	4.7
650	31	3,719	.8	36	246	3.3
600	31	4,360	- 2.6	31	250	4.7
550	31	5,037	- 6.7	28	240	6.4
500	31	5,782	-11.9	30	233	6.2
450	31	6,571	-17.8		257	5.4
400	31	7,449	-24.6		269	4.5
350	31	8,407	-32.0		108	1.4
300	31	9,476	-40.3		273	5.8
250	31	10,697	-48.5		273	11.7
200	30	12,146	-55.5		250	11.1
175	30	12,991	-58.7		263	15.3
150	30	13,952	-61.7		261	15.2
125	30	15,073	-64.7		270	12.4
100	30	16,428	-66.2		276	11.9
80	30	17,783	-64.8		290	7.4
70	30	18,612	-63.8		301	5.4
60	30	19,549	-62.1		310	4.9
50	29	20,683	-60.2		307	3.9
40	28	22,084	-58.2		336	5.2
30	28	23,906	-55.6		293	6.6
25	28	25,073	-54.1		282	9.3
20	24	26,502	-52.6		285	11.3
15	21	28,375	-50.6		261	28.2
10	11	31,030	-48.7			

FAIRBANKS, ALASKA
987 MB

Standard pressure surface (mb.)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind	
					Direction	Speed
SURFACE	31	135	- 2.1	87	353	2.5
1000	31	33				
950	31	439	- .7	66	88	5.6
900	31	873	- 2.2	65	126	7.2
850	31	1,326	- 4.2	64	155	7.0
800	31	1,801	- 6.6	65	177	9.1
750	31	2,299	- 9.8	61	180	10.1
700	31	2,832	-13.3	56	192	10.5
650	31	3,385	-17.0	54	204	14.0
600	31	3,989	-21.0	50	212	14.6
550	31	4,620	-25.1	45	211	15.3
500	31	5,313	-29.3	45	218	18.5
450	31	6,049	-34.4	45	218	20.0
400	31	6,872	-40.1		213	23.9
350	31	7,771	-46.2		215	28.2
300	31	8,782	-51.9		223	25.8
250	31	9,955	-53.8		228	24.9
200	31	11,397	-51.0		237	24.9
175	30	12,269	-50.8		237	24.5
150	30	13,273	-50.5		235	24.5
125	30	14,461	-50.7		240	24.1
100	29	15,914	-50.9		241	24.9
80	29	17,364	-51.5		242	25.1
70	29	18,227	-51.6		243	25.3
60	29	19,230	-51.9		248	23.9
50	28	20,412	-52.3		253	24.5
40	26	21,856	-53.3		258	24.9
30	24	23,701	-53.8		266	27.0
25	21	24,872	-54.3		277	28.6
20	18	26,306	-54.6		284	29.3
15	17	28,154	-55.1		299	34.4
10	14	30,754	-54.9			
7						
5						

FLINT, MICH.
988 MB

Standard pressure surface (mb.)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind	
					Direction	Speed
SURFACE	30	234	7.7	90	234	3.1
1000	30	133				
950	30	556	9.2	75	254	8.4
900	30	1,006	7.0	69	272	10.9
850	30	1,475	4.5	64	273	11.9
800	30	1,967	2.5	56	277	15.2
750	30	2,483		51	274	16.7
700	30	3,037	- 3.1	51	277	19.0
650	29	3,614	- 6.5	48	281	22.9
600	29	4,238	-10.2	45	282	25.8
550	29	4,899	-13.9	40	283	28.0
500	29	5,623	-18.5	36	280	31.1
450	29	6,392	-23.8		280	33.8
400	29	7,251	-30.1		28[illegible]	37.1
350	28	8,183	-37.1		282	39.2
300	28	9,234	-43.4		277	42.0
250	28	10,445	-48.5		278	46.4
200	28	11,898	-52.9		280	48.2
175	28	12,755	-54.9		283	43.7
150	28	13,734	-57.0		285	40.2
125	28	14,883	-58.9		283	29.9
100	28	16,276	-60.5		280	23.7
80	28	17,670	-59.5		284	19.2
70	28	18,509	-59.4		284	11.5
60	28	19,473	-58.9		284	8.5
50	28	20,619	-58.3		298	5.8
40	28	22,027	-57.1		287	5.1
30	26	23,864	-54.7		297	4.7
25	26	25,033	-54.0		280	7.4
20	24	26,473	-51.7		279	12.8
15	23	28,344	-49.1		272	22.5
10	10	31,034	-47.0			

FORT WORTH, TEXAS
996 MB

Standard pressure surface (mb.)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind	
					Direction	Speed
SURFACE	31	180	17.8	79	231	1.9
1000	31	147				
950	31	592	17.7	71	215	9.3
900	31	1,051	16.7	63	232	11.5
850	31	1,537	14.6	61	258	9.9
800	31	2,048	11.8	57	271	9.5
750	31	2,588	8.8	53	283	9.3
700	31	3,155	5.3	50	281	9.5
650	31	3,758	1.9	47	278	12.4
600	31	4,398	- 1.8	42	281	14.4
550	31	5,079	- 5.5		279	16.1
500	31	5,828	-10.2		276	20.0
450	31	6,631	-15.5		277	23.9
400	31	7,512	-21.8		276	28.4
350	31	8,481	-29.0		276	31.9
300	31	9,565	-37.4		275	36.9
250	31	10,799	-46.7		278	40.4
200	31	12,248	-56.1		276	40.8
175	31	13,090	-60.1		277	39.6
150	31	14,041	-64.6		280	36.5
125	31	15,144	-68.8		284	29.3
100	31	16,469	-71.1		293	19.6
80	31	17,792	-69.2		305	10.1
70	31	18,602	-66.9		324	5.2
60	31	19,532	-63.4		351	2.5
50	31	20,661	-60.3		307	1.6
40	31	22,063	-56.8		257	3.1
30	29	23,901	-52.7		275	10.5
25	29	25,083	-51.5		281	12.0
20	29	26,541	-49.0		279	13.4
15	24	28,434	-47.2		277	12.8

GLASGOW, MONT.
934 MB

Standard pressure surface (mb.)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind	
					Direction	Speed
SURFACE	31	696	5.4	82	50	2.1
1000	31	130				
950	31	553				
900	31	999	8.3	64	311	2.5
850	31	1,472	7.9	52	307	9.1
800	31	1,970	5.8	48	301	11.5
750	31	2,491	2.9	48	295	14.0
700	31	3,051	- .2	45	292	17.3
650	31	3,633	- 3.5	43	291	21.0
600	31	4,269	- 7.5	47	288	24.5
550	31	4,933	-11.6	45	292	26.8
500	31	5,667	-15.9	44	297	29.5
450	31	6,445	-21.3	42	295	33.2
400	31	7,311	-27.5	39	294	36.9
350	31	8,256	-34.8		296	40.6
300	31	9,313	-42.9		293	47.6
250	31	10,518	-51.5		291	48.2
200	31	11,945	-56.1		289	48.4
175	30	12,795	-57.4		285	44.9
150	30	13,766	-58.9		285	42.9
125	29	14,904	-60.9		289	35.4
100	29	16,288	-61.2		293	28.0
80	28	17,673	-60.7		295	19.0
70	28	18,508	-60.0		294	15.2
60	28	19,471	-59.8		298	10.3
50	28	20,611	-59.2		301	6.8
40	27	22,010	-58.5		319	7.0
30	25	23,819	-57.2		316	6.2
25	22	24,967	-56.4		304	4.7
20	11	26,403	-54.5			

GRAND JUNCTION, COLO.
855 MB

Standard pressure surface (mb.)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind	
					Direction	Speed
SURFACE	31	1,474	8.9	52	123	5.2
1000	31	153				
950	31	586				
900	31	1,043				
850	31	1,521	9.8	48	123	5.8
800	31	2,028	10.8	40	139	6.8
750	31	2,561	7.8	41	178	2.9
700	31	3,128	4.3	41	243	5.4
650	31	3,722	.6	39	254	7.6
600	31	4,366	- 2.7		268	11.7
550	31	5,045	- 6.8		269	13.2
500	31	5,788	-11.6		278	14.2
450	31	6,578	-17.3		280	16.1
400	31	7,459	-23.9		269	16.1
350	31	8,419	-31.4		266	19.2
300	31	9,491	-39.9		262	20.0
250	31	10,712	-48.7		265	21.0
200	31	12,153	-55.8		266	26.2
175	31	12,998	-58.5		267	28.2
150	31	13,958	-62.2		269	27.4
125	31	15,073	-64.2		273	24.9
100	31	16,418	-68.3		276	20.2
80	30	17,766	-66.2		275	11.1
70	30	18,589	-64.6		290	7.2
60	30	19,524	-62.3		287	4.9
50	30	20,655	-60.3		315	4.1
40	30	22,052	-58.3		332	5.4
30	30	23,874	-55.5		302	6.2
25	30	25,040	-54.0		294	9.5
20	30	26,478	-52.4		278	15.0
15	28	28,352	-50.4		273	22.5
10	26	31,000	-49.0		268	28.0
7	17	33,350	-45.5		266	33.0
5	9	35,558	-44.1			

See reference note at end of table

RAWINSONDE DATA

Average monthly values

GREAT FALLS, MONT. 888 MB

Standard pressure surface (mb)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind Direction	Wind Speed
SURFACE	31	1,123	7.2	62	222	8.0
1000	31	[illegible]				
950	31	561				
900	31	1,012				
850	31	1,485	9.5	47	247	12.4
800	31	1,986	7.0	47	269	11.9
750	31	2,508	3.7	50	275	13.4
700	31	3,070	.4	54	274	15.7
650	31	3,655	- 2.6	55	276	19.8
600	30	4,292	- 6.4	50	280	22.9
550	30	4,961	-10.1	45	285	24.5
500	30	5,697	-14.9	42	281	27.2
450	30	6,474	-20.5	44	282	28.8
400	30	7,347	-26.8	41	277	34.6
350	30	8,297	-34.1		279	35.6
300	30	9,356	-42.5		276	38.3
250	30	10,564	-51.1		274	42.6
200	29	11,983	-56.9		269	46.8
175	29	12,827	-57.8		267	40.4
150	29	13,798	-58.7		266	38.1
125	28	14,939	-60.5		273	31.5
100	28	16,324	-61.1		270	26.6
80	26	17,705	-60.6		267	17.7
70	26	18,547	-59.5		270	14.2
60	26	19,504	-59.0		272	11.3
50	26	20,648	-58.7		278	8.0
40	26	22,049	-58.2		283	6.2
30	26	23,865	-56.8		296	8.0
25	25	25,020	-56.4		303	8.9
20	24	26,440	-55.6		286	8.4
15	22	28,278	-54.7		277	15.5
10	21	30,879	-53.1		277	23.1
7	16	33,218	-50.9		276	28.8
5	11	35,491	-46.6			

GREEN BAY, WIS. 989 MB

Standard pressure surface (mb)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind Direction	Wind Speed
SURFACE	31	210	7.3	89	330	2.1
1000	31	120				
950	31	541	7.9	74	305	5.8
900	31	989	6.0	70	311	7.6
850	31	1,456	4.1	64	306	7.8
800	31	1,948	1.9	61	290	10.7
750	31	2,467	- .5	52	282	14.0
700	31	3,015	- 3.5	51	285	16.3
650	31	3,596	- 6.5	45	291	18.5
600	31	4,220	- 9.7	38	292	21.8
550	31	4,880	-13.4		289	24.7
500	31	5,605	-18.1	34	288	27.6
450	31	6,375	-23.5		291	30.5
400	31	7,235	-29.6		290	35.0
350	31	8,175	-36.3		293	37.9
300	31	9,227	-43.2		292	41.0
250	31	10,439	-49.1		290	43.9
200	31	11,889	-53.1		290	46.6
175	31	12,746	-54.9		289	42.4
150	31	13,728	-56.8		291	39.6
125	30	14,888	-59.3		290	31.9
100	30	16,282	-60.5		290	24.7
80	30	17,674	-59.8		294	18.5
70	30	18,514	-59.2		296	13.6
60	30	19,475	-58.8		298	9.7
50	30	20,621	-58.1		304	7.0
40	30	22,029	-57.1		329	5.6
30	28	23,851	-55.8		317	5.4
25	26	25,022	-54.3		304	6.6
20	22	26,473	-53.0		298	11.7
15	16	28,331	-50.6		289	16.5
10						
7						
5						

GREENSBORO, N. C. 986 MB

Standard pressure surface (mb)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind Direction	Wind Speed
SURFACE	31	273	11.1	84	322	1.2
1000	31	152				
950	31	585	14.5	64	326	4.5
900	31	1,040	12.4	61	319	6.4
850	31	1,518	9.6	64	300	8.2
800	31	2,020	7.4	56	281	11.5
750	31	2,547	5.1	47	279	13.4
700	31	3,110	2.3	44	277	15.5
650	31	3,704	- 1.0	42	277	19.4
600	31	4,341	- 4.5	40	274	22.3
550	31	5,017	- 8.3	37	276	23.9
500	31	5,756	-12.7		275	29.3
450	31	6,544	-18.0		275	30.9
400	31	7,424	-24.2		274	33.4
350	31	8,383	-31.3		277	37.7
300	31	9,458	-38.9		270	43.9
250	31	10,686	-47.2		269	44.7
200	31	12,134	-55.5		268	46.4
175	31	12,978	-59.0		271	42.9
150	31	13,937	-62.5		275	35.8
125	31	15,052	-66.0		275	31.5
100	31	16,402	-66.5		278	21.4
80	31	17,758	-64.8		274	14.8
70	31	18,587	-62.7		263	11.3
60	31	19,531	-61.1		263	7.4
50	31	20,669	-59.0		275	4.7
40	30	22,083	-56.4		278	8.5
30	30	23,924	-53.5		262	9.5
25	29	25,103	-51.5		253	12.6
20	27	26,556	-48.9		269	15.7
15	26	28,456	-46.8		281	19.0
10	5	31,169	-43.9			
7						
5						

GUAM, MARIANA IS. 997 MB

Standard pressure surface (mb)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind Direction	Wind Speed
SURFACE	31	111	24.9	93	238	.8
1000	31	84				
950	31	536	23.7	81	188	1.4
900	31	1,008	21.1	77	244	2.9
850	31	1,502	18.7	75	241	3.7
800	31	2,021	15.9	73	226	3.7
750	31	2,566	13.2	68	213	4.1
700	31	3,146	10.1	70	201	2.9
650	31	3,759	6.6	70	199	2.5
600	31	4,413	2.8	69	161	3.3
550	31	5,113	- 1.3	66	141	3.3
500	31	5,866	- 5.6	63	128	2.3
450	31	6,684	-10.3	52	114	2.1
400	31	7,585	-15.7	48	106	2.1
350	31	8,578	-22.4	43	106	2.5
300	31	9,692	-30.6	37	91	2.1
250	31	10,960	-40.7		72	4.1
200	30	12,438	-52.8		35	7.8
175	29	13,285	-60.0		37	11.1
150	28	14,230	-67.7		47	13.6
125	26	15,308	-75.1		63	22.7
100	25	16,579	-80.6		78	26.0
80	21	17,846	-77.6		87	23.5
70	19	18,622	-72.8		89	21.8
60	18	19,537	-68.1		92	21.4
50	18	20,646	-63.1		93	24.9
40	17	22,036	-59.0		91	32.1
30	16	23,856	-55.1		88	43.9
25	15	25,023	-52.8		84	49.4
20	13	26,473	-49.1		89	57.1
15	11	28,388	-44.2		92	52.8
10	9	31,129	-41.5			
7						
5						

HILO, HAWAII 1015 MB

Standard pressure surface (mb)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind Direction	Wind Speed
SURFACE	31	11	20.2	84	235	5.1
1000	31	142	22.7	75	226	4.3
950	31	586	19.7	77	141	3.5
900	31	1,052	16.5	78	114	5.1
850	31	1,537	13.8	75	110	4.1
800	31	2,047	11.8	63	129	3.5
750	31	2,588	9.6	46	130	2.5
700	31	3,158	8.7		110	3.3
650	31	3,765	6.0		123	1.9
600	31	4,419	2.1		150	1.2
550	31	5,110	- 2.4		134	1.0
500	31	5,865	- 7.5		287	.8
450	31	6,671	-13.1		302	3.1
400	31	7,565	-19.5		276	8.2
350	31	8,542	-27.1		271	13.4
300	31	9,635	-35.3		276	20.0
250	31	10,880	-44.8		271	29.3
200	30	12,340	-55.3		270	33.0
175	30	13,180	-61.3		263	29.5
150	30	14,123	-66.8		262	22.9
125	28	15,211	-71.1		264	17.3
100	26	16,520	-74.0		247	7.8
80	26	17,826	-72.0		103	6.4
70	26	18,616	-69.4		98	11.9
60	26	19,545	-65.2		94	15.0
50	26	20,665	-61.8		85	17.5
40	26	22,058	-58.1		89	22.5
30	26	23,888	-54.0		90	28.0
25	26	25,064	-51.6		90	30.7
20	26	26,520	-49.1		91	30.7
15	24	28,412	-47.5		92	29.0
10	21	31,100	-44.7		99	18.1
7	17	33,509	-40.7		78	8.0
5	14	35,830	-35.9			

HUNTINGTON, W. VA. 989 MB

Standard pressure surface (mb)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind Direction	Wind Speed
SURFACE	31	246	10.3	84	217	1.6
1000	31	149				
950	31	582	12.8	67	250	6.8
900	31	1,033	10.6	66	272	11.1
850	31	1,508	8.0	66	272	13.6
800	31	2,007	5.4	60	275	16.1
750	31	2,532	3.2	51	273	17.7
700	31	3,090	.5	45	273	20.2
650	31	3,675	- 2.8	42	275	21.4
600	31	4,312	- 6.3	37	277	24.1
550	31	4,982	-10.2	35	276	25.6
500	31	5,717	-14.7		275	28.8
450	31	6,499	-19.9		276	33.0
400	31	7,371	-25.8		276	37.9
350	31	8,326	-32.7		275	40.2
300	31	9,395	-40.1		278	42.7
250	31	10,620	-47.3		276	44.3
200	31	12,073	-54.5		276	45.1
175	31	12,922	-57.7		277	41.8
150	31	13,888	-60.5		279	39.1
125	31	15,019	-63.0		277	32.8
100	30	16,388	-64.0		282	25.6
80	29	17,757	-62.5		280	16.9
70	29	18,590	-61.6		279	11.3
60	29	19,543	-60.0		279	8.9
50	29	20,688	-58.0		274	5.8
40	28	22,099	-56.4		280	6.6
30	27	23,937	-53.5		267	8.5
25	27	25,117	-51.5		265	12.0
20	27	26,574	-49.5		271	16.5
15	14	28,484	-46.4			
10						
7						
5						

INTERNAT. FALLS, MINN. 972 MB

Standard pressure surface (mb)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind Direction	Wind Speed
SURFACE	31	360	3.6	80	262	1.7
1000	31	123				
950	31	540	5.8	72	272	3.9
900	31	986	5.0	68	279	7.8
850	31	1,450	2.8	61	294	9.7
800	31	1,939	.5	53	306	10.5
750	31	2,447	- 1.8	46	305	13.0
700	31	3,001	- 4.3	43	306	16.3
650	31	3,578	- 6.8	39	303	19.0
600	31	4,203	-10.5	39	305	21.6
550	31	4,866	-14.7	37	307	24.1
500	31	5,584	-19.3	36	306	26.2
450	31	6,353	-24.7		305	29.7
400	31	7,207	-30.8		302	31.9
350	31	8,143	-37.3		307	37.7
300	31	9,193	-44.4		309	43.3
250	31	10,397	-50.7		300	47.6
200	31	11,839	-53.9		300	44.7
175	31	12,697	-54.4		300	44.5
150	31	13,682	-55.9		298	37.5
125	31	14,837	-57.7		300	34.8
100	31	16,243	-58.3		298	26.4
80	31	17,646	-58.3		293	19.2
70	30	18,487	-58.0		294	15.7
60	30	19,457	-57.8		295	12.2
50	29	20,609	-57.9		302	8.9
40	29	22,016	-57.6		301	7.4
30	28	23,835	-56.7		301	5.4
25	27	25,000	-56.1		292	6.8
20	26	26,426	-55.6		297	8.7
15	23	28,273	-54.3		288	13.6
10	22	30,898	-50.7		271	18.8
7	16	33,308	-46.9		270	28.6
5	7	35,617	-42.8			

JACKSON, MISS. 1007 MB

Standard pressure surface (mb)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind Direction	Wind Speed
SURFACE	31	94	14.9	90	128	1.4
1000	31	151	16.5	81	143	1.9
950	31	589	17.4	64	197	3.9
900	31	1,051	15.2	62	253	3.1
850	30	1,533	12.9	56	288	7.4
800	30	2,041	10.5	52	290	8.2
750	30	2,575	7.8	52	291	10.3
700	30	3,142	4.6	49	289	14.4
650	30	3,739	1.3	44	283	15.3
600	30	4,384	- 1.5	35	280	18.1
550	30	5,061	- 5.6		281	19.8
500	30	5,813	-10.2		280	23.1
450	30	6,609	-15.6		283	26.8
400	30	7,496	-22.1		291	25.6
350	30	8,465	-29.0		285	31.3
300	30	9,549	-37.3		288	32.6
250	30	10,784	-46.5		287	40.2
200	30	12,236	-55.4		285	41.6
175	30	13,080	-59.7		285	38.9
150	30	14,035	-64.1		287	33.2
125	30	15,140	-68.3		286	28.2
100	30	16,471	-70.3		292	21.6
80	30	17,802	-67.9		312	9.9
70	30	18,622	-65.5		303	4.7
60	30	19,552	-62.5		301	2.9
50	29	20,682	-59.5		272	2.3
40	29	22,089	-56.2		258	5.4
30	28	23,932	-52.7		280	10.9
25	27	25,113	-50.3		278	11.5
20	27	26,575	-48.6		278	14.2
15	26	28,474	-46.6		277	16.1
10	14	31,150	-45.4			
7						
5						

JACKSONVILLE, FLA. 1017 MB

Standard pressure surface (mb)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind Direction	Wind Speed
SURFACE	31	5	16.4	90	337	4.1
1000	31	148	19.3	75	352	6.8
950	31	588	18.0	65	8	6.0
900	31	1,051	15.5	62	350	4.1
850	31	1,534	13.3	56	324	4.1
800	31	2,043	11.4	45	318	6.6
750	31	2,579	8.7	44	315	8.9
700	31	3,148	6.0	37	304	10.9
650	31	3,748	2.9	31	290	13.4
600	31	4,396	- .9		284	16.1
550	31	5,079	- 4.9		282	17.9
500	31	5,829	- 9.6		284	20.6
450	31	6,626	-15.2	32	283	22.9
400	31	7,515	-21.3		282	25.5
350	31	8,485	-28.7		283	26.0
300	31	9,570	-36.9		277	30.1
250	31	10,808	-45.6		278	34.0
200	31	12,261	-55.4		282	33.6
175	31	13,104	-60.0		281	33.8
150	31	14,055	-64.3		283	33.4
125	31	15,157	-68.7		283	28.6
100	31	16,484	-70.6		289	19.2
80	30	17,812	-68.3		299	7.8
70	29	18,632	-65.8		279	2.1
60	28	19,567	-61.5		253	1.0
50	28	20,705	-58.3		287	.8
40	27	22,113	-55.3		93	1.4
30	26	23,959	-52.2		88	2.7
25	24	25,150	-49.8		60	1.9
20	22	26,623	-47.0		302	1.0
15	19	28,527	-45.3		285	5.2
10	14	31,250	-42.6			
7						
5						

KING SALMON, ALASKA 997 MB

Standard pressure surface (mb)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind Direction	Wind Speed
SURFACE	31	15	.3	89	73	2.3
1000	31	- 7			34	2.7
950	31	409	.5	73	51	3.3
900	31	838	- 1.7	70	88	.6
850	31	1,291	- 4.3	68	189	2.3
800	31	1,767	- 6.9	66	192	4.7
750	31	2,267	- 9.6	60	195	6.4
700	31	2,798	-12.5	57	179	6.0
650	31	3,360	-16.0	55	178	6.4
600	31	3,959	-19.9	52	177	6.8
550	31	4,596	-24.0	50	177	7.0
500	31	5,290	-28.7	49	188	7.4
450	30	6,033	-33.8	46	175	10.9
400	30	6,854	-39.0		182	10.9
350	30	7,759	-44.7		196	14.2
300	30	8,779	-49.4		208	16.1
250	30	9,969	-50.6		228	19.2
200	30	11,427	-49.4		235	20.4
175	30	12,303	-49.3		238	21.0
150	30	13,313	-49.6		242	21.6
125	29	14,499	-50.5		239	20.0
100	29	15,953	-50.5		240	19.8
80	29	17,407	-50.9		240	19.0
70	29	18,275	-51.2		241	19.0
60	29	19,277	-51.5		240	17.5
50	29	20,459	-52.0		244	17.1
40	29	21,905	-52.0		250	15.2
30	28	23,765	-52.2		255	13.0
25	28	24,943	-52.4		265	12.0
20	27	26,391	-52.1		269	13.0
15	20	28,251	-52.2		278	14.0
10	5	30,919	-51.9			
7						
5						

KOTZEBUE, ALASKA 1005 MB

Standard pressure surface (mb)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind Direction	Wind Speed
SURFACE	30	5	- 5.2	82	60	6.6
1000	30	43			85	8.4
950	30	444	- 5.3	73	90	8.0
900	30	869	- 7.4	72	108	5.4
850	30	1,312	- 9.7	69	116	3.7
800	30	1,779	-11.7	61	130	2.3
750	30	2,266	-14.0	57	158	2.5
700	30	2,792	-17.3	56	165	3.5
650	30	3,337	-20.8	54	170	3.1
600	30	3,931	-24.4	50	199	5.2
550	30	4,555	-28.3	45	208	6.8
500	30	5,237	-32.9	42	231	9.5
450	30	5,967	-37.8		235	10.5
400	30	6,775	-42.7		240	13.0
350	30	7,666	-47.9		237	14.8
300	30	8,672	-52.3		228	18.8
250	30	9,850	-51.9		232	20.2
200	29	11,306	-50.0		235	20.6
175	29	12,176	-50.2		235	19.6
150	29	13,184	-50.3		237	19.6
125	29	14,373	-50.3		238	18.8
100	29	15,828	-50.5		239	20.6
80	29	17,281	-50.9		244	20.8
70	29	18,147	-51.5		242	20.8
60	29	19,149	-52.1		244	22.3
50	29	20,328	-52.7		252	23.5
40	28	21,770	-52.7		252	26.0
30	27	23,623	-52.9		254	28.5
25	25	24,809	-52.9		260	31.1
20	25	26,247	-52.8		268	34.6
15	24	28,115	-52.4		265	39.4
10	9	30,703	-52.2			
7						
5						

LAKE CHARLES, LA. 1017 MB

Standard pressure surface (mb)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind Direction	Wind Speed
SURFACE	31	5	17.7	96	55	4.7
1000	31	150	20.2	79	81	4.5
950	31	597	18.9	70	166	1.7
900	31	1,057	16.8	66	227	2.9
850	31	1,544	14.6	61	261	3.5
800	31	2,055	12.1	55	297	5.4
750	31	2,591	9.1	53	307	7.4
700	31	3,162	6.1	46	300	8.9
650	31	3,770	2.9	39	297	8.9
600	31	4,412	- .3	34	293	12.2
550	30	5,097	- 4.3		289	13.6
500	30	5,848	- 8.9		286	18.1
450	30	6,651	-14.3		284	19.2
400	30	7,540	-20.9		286	21.6
350	30	8,513	-27.9		284	22.5
300	30	9,602	-36.0		280	29.1
250	30	10,844	-45.1		282	35.2
200	30	12,302	-55.4		283	36.9
175	30	13,144	-60.3		282	34.6
150	30	14,094	-65.1		283	30.7
125	30	15,191	-69.7		285	27.0
100	29	16,509	-72.5		284	19.0
80	29	17,825	-70.3		310	9.7
70	29	18,636	-67.4		318	2.7
60	29	19,564	-63.0		347	1.4
50	28	20,695	-59.3		199	2.5
40	27	22,103	-56.3		255	1.9
30	26	23,949	-52.1		314	3.1
25	23	25,137	-49.5		308	3.1
20	21	26,606	-47.5		278	4.5
15	13	28,514	-45.5		287	6.2
10	5	31,215	-44.5			
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LANDER, WYO. 830 MB

Standard pressure surface (mb)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind Direction	Wind Speed
SURFACE	31	1,696	6.0	56	246	3.7
1000	31	140				
950	31	567				
900	31	1,024				
850	31	1,501				
800	31	2,003	9.5	39	250	3.3
750	31	2,537	7.1	36	266	6.2
700	31	3,100	3.8	36	286	10.5
650	31	3,688		35	289	14.4
600	31	4,335	- 3.6	31	294	17.1
550	31	5,006	- 7.7	33	287	20.0
500	31	5,753	-12.4	29	285	22.5
450	31	6,541	-18.0		290	21.2
400	31	7,421	-24.3		288	23.7
350	31	8,379	-31.9		288	27.0
300	31	9,448	-40.7		288	30.1
250	31	10,665	-49.8		285	32.6
200	31	12,100	-56.5		279	35.0
175	31	12,943	-58.9		278	33.2
150	31	13,907	-60.9		273	33.6
125	31	15,031	-63.7		275	28.6
100	30	16,392	-65.2		282	21.0
80	29	17,756	-64.3		294	12.8
70	29	18,581	-62.8		300	9.7
60	28	19,533	-61.4		304	6.2
50	26	20,671	-60.1		316	5.6
40	25	22,067	-59.2		336	5.2
30	24	23,882	-57.3		315	6.2
25	19	25,043	-55.8		332	5.8
20	6	26,435	-53.4			
15						
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LAS VEGAS, NEV. 939 MB

Standard pressure surface (mb)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind Direction	Wind Speed
SURFACE	31	660	15.6	41	228	4.9
1000	31	116				
950	31	557				
900	31	1,021	19.0	28	277	2.7
850	31	1,509	16.0	30	318	4.1
800	31	2,021	12.4	32	353	1.4
750	31	2,552	8.6	34	121	1.4
700	31	3,124	4.5	36	150	1.7
650	31	3,717	.9	30	197	1.6
600	31	4,363	- 2.5		227	3.7
550	31	5,037	- 6.7		239	4.1
500	31	5,784	-12.2		273	5.6
450	31	6,572	-18.0		244	5.6
400	31	7,451	-24.2		246	6.4
350	31	8,411	-31.1		246	10.7
300	31	9,485	-38.8		237	11.7
250	31	10,715	-46.6		241	13.2
200	31	12,170	-53.7		249	23.5
175	31	13,021	-56.9		249	26.6
150	31	13,988	-61.1		250	27.6
125	31	15,109	-65.1		255	22.2
100	30	16,458	-68.2		264	16.3
80	29	17,802	-66.4		275	6.4
70	29	18,620	-64.8		302	2.9
60	29	19,559	-62.7		325	1.6
50	28	20,688	-60.4		344	2.1
40	24	22,082	-57.9		327	1.4
30	24	23,909	-54.7		294	5.8
25	22	25,082	-52.7		282	8.2
20	20	26,528	-50.7		273	14.0
15	15	28,384	-48.9		267	18.1
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LIHUE, HAWAII 1013 MB

Standard pressure surface (mb)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind Direction	Wind Speed
SURFACE	31	36	21.8	82	3	1.9
1000	31	144	22.4	79	42	3.3
950	31	588	19.2	79	78	4.7
900	31	1,053	16.0	80	92	4.7
850	31	1,537	12.9	78	101	4.7
800	31	2,045	11.0	58	109	3.9
750	31	2,584	10.5		115	1.9
700	31	3,156	8.3		237	1.7
650	31	3,763	5.5		262	3.1
600	31	4,415	1.5		264	5.1
550	31	5,102	- 3.0		274	5.6
500	31	5,858	- 8.1		262	7.6
450	31	6,664	-13.7		269	9.3
400	31	7,553	-20.3		274	12.4
350	31	8,527	-27.7		272	16.9
300	31	9,617	-35.9		273	21.6
250	31	10,858	-45.4		270	24.1
200	30	12,308	-56.0		271	28.6
175	30	13,147	-61.1		269	25.8
150	30	14,092	-65.8		267	17.3
125	29	15,188	-69.9		272	11.7
100	29	16,504	-73.0		274	3.7
80	29	17,817	-71.0		81	4.9
70	29	18,612	-68.0		89	8.0
60	29	19,545	-64.6		94	12.4
50	28	20,668	-61.0		86	16.9
40	28	22,066	-57.5		88	19.6
30	28	23,898	-53.7		85	20.2
25	28	25,076	-51.6		85	22.0
20	28	26,531	-49.5		91	22.0
15	26	28,430	-47.4		93	19.2
10	23	31,116	-44.4		93	12.0
7	21	33,526	-40.4		113	2.9
5	17	35,835	-37.0			

See reference note at end of table

RAWINSONDE DATA

Average monthly values

OCTOBER 1962

LITTLE ROCK, ARK.
1008 MB

Standard pressure surface (mb.)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind Direction	Wind Speed
SURFACE	31	79	15.0	87	233	1.0
1000	31	147	15.6	79	227	1.9
950	31	583	16.1	65	247	7.8
900	31	1,043	14.1	62	260	9.5
850	31	1,525	11.8	59	271	11.7
800	31	2,031	9.4	56	281	12.0
750	31	2,560	6.4	53	283	12.6
700	31	3,128	3.7	51	282	15.5
650	31	3,720	.2	47	281	16.9
600	31	4,365	- 3.3	44	280	18.3
550	31	5,039	- 6.7	37	281	21.8
500	31	5,789	-11.4	30	279	25.5
450	31	6,579	-16.6		284	28.6
400	31	7,466	-22.9		286	33.8
350	31	8,431	-29.8		286	39.8
300	31	9,511	-38.0		289	45.7
250	31	10,742	-47.0		292	51.9
200	31	12,192	-55.5		296	48.8
175	31	13,035	-59.5		296	43.1
150	31	13,990	-63.4		295	38.1
125	30	15,094	-67.0		292	31.7
100	29	16,434	-69.2		291	26.2
80	26	17,776	-67.0		294	18.3
70	26	18,591	-65.0		297	11.5
60	26	19,534	-62.1		293	5.6
50	24	20,670	-59.8		303	4.5
40	24	22,076	-56.9		283	9.7
30	21	23,914	-52.8		279	10.3
25	19	25,094	-50.4		282	13.0
20	18	26,560	-48.7		277	16.5
15	17	28,457	-46.9		273	18.3
10						
7						
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MCGRATH, ALASKA
990 MB

Standard pressure surface (mb.)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind Direction	Wind Speed
SURFACE	31	103	- 3.6	83	337	1.6
1000	31	28				
950	31	433	- 2.2	74	49	3.7
900	31	860	- 3.4	74	66	4.9
850	31	1,311	- 5.3	69	106	3.3
800	31	1,785	- 7.7	66	155	4.5
750	31	2,277	-10.3	61	174	7.2
700	31	2,813	-13.5	56	181	8.5
650	31	3,364	-17.0	53	184	9.9
600	31	3,969	-20.9	54	185	12.2
550	31	4,595	-25.3	51	194	13.4
500	31	5,291	-30.2	48	199	14.6
450	31	6,019	-35.2	45	207	17.1
400	30	6,844	-40.5		213	21.0
350	30	7,743	-45.7		216	21.8
300	30	8,759	-50.0		218	24.7
250	30	9,944	-51.8		224	21.0
200	30	11,397	-50.0		233	21.2
175	30	12,270	-49.6		236	20.2
150	30	13,279	-49.6		236	21.2
125	30	14,470	-50.0		237	19.8
100	30	15,927	-50.2		240	20.0
80	30	17,381	-50.8		238	20.0
70	30	18,245	-50.9		243	19.6
60	28	19,265	-51.0		244	18.8
50	28	20,450	-51.4		244	19.8
40	26	21,891	-51.7		244	20.8
30	25	23,750	-52.3		253	22.2
25	23	24,929	-52.2		263	22.2
20	22	26,382	-52.5		275	21.8
15	16	28,284	-53.3			
10						
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MAJURO, MARSHALL IS.
1011 MB

Standard pressure surface (mb.)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind Direction	Wind Speed
SURFACE	31	3	27.1	82	89	5.4
1000	31	97	26.4	81	87	6.6
950	31	547	23.4	81	85	9.7
900	31	1,022	20.5	79	91	10.7
850	31	1,515	17.5	76	92	11.1
800	31	2,032	15.0	72	91	11.1
750	31	2,574	12.4	67	87	12.0
700	31	3,155	9.4	65	87	12.6
650	31	3,771	6.0	64	86	11.5
600	31	4,420	2.4	61	87	10.1
550	31	5,115	- 1.0	63	84	8.4
500	31	5,874	- 5.8	60	98	7.0
450	31	6,693	-10.3	51	101	6.2
400	31	7,594	-16.0	41	88	6.4
350	31	8,587	-22.8	39	69	4.9
300	31	9,699	-31.1	38	67	5.4
250	31	10,965	-41.3		15	5.2
200	31	12,439	-53.9		314	6.0
175	31	13,283	-61.0		310	9.5
150	31	14,224	-68.4		301	11.5
125	31	15,298	-75.4		286	14.2
100	31	16,573	-79.8		303	3.9
80	27	17,852	-75.1		94	3.9
70	26	18,632	-71.9		26	2.3
60	25	19,545	-68.9		59	9.1
50	25	20,648	-64.4		92	16.3
40	24	22,026	-61.0		90	36.3
30	23	23,826	-56.9		89	53.6
25	23	24,989	-54.0		89	57.7
20	22	26,432	-50.5		90	63.5
15	22	28,330	-45.4		88	63.7
10	13	31,059	-39.7		94	40.0
7	5	33,498	-37.8			
5						

MEDFORD, OREG.
972 MB

Standard pressure surface (mb.)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind Direction	Wind Speed
SURFACE	30	401	5.4	96	254	.6
1000	30	162				
950	30	585	8.9	85	285	1.6
900	30	1,035	10.5	71	161	2.5
850	30	1,511	9.7	56	177	4.5
800	30	2,013	7.6	47	201	5.4
750	30	2,537	5.2	40	232	8.4
700	30	3,103	2.5	36	242	10.9
650	30	3,692	- .8		244	11.9
600	30	4,334	- 4.4		240	15.7
550	30	5,007	- 8.9		244	16.7
500	30	5,747	-14.0		245	17.9
450	30	6,531	-19.7		248	20.4
400	30	7,403	-26.3		243	19.8
350	30	8,355	-33.4		245	21.6
300	30	9,420	-41.1		259	21.8
250	30	10,637	-49.3		278	19.8
200	29	12,071	-55.8		285	18.1
175	29	12,918	-57.7		270	18.1
150	28	13,892	-59.4		269	20.4
125	28	15,026	-62.3		265	17.1
100	27	16,403	-64.6		263	13.4
80	25	17,769	-63.4		271	8.5
70	25	18,598	-62.2		272	6.8
60	24	19,548	-60.7		275	5.6
50	24	20,685	-59.6		298	4.5
40	24	22,084	-58.2		295	4.1
30	23	23,904	-56.2		289	5.6
25	23	25,065	-54.9		281	8.2
20	22	26,494	-53.5		278	11.9
15	21	28,350	-51.7		289	18.7
10	21	30,992	-49.5		282	21.8
7	14	33,311	-48.4		277	29.3
5	6	35,515	-46.8			

MIAMI, FLA.
1015 MB

Standard pressure surface (mb.)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind Direction	Wind Speed
SURFACE	31	4	21.8	88	[illegible]	2.7
1000	31	131	23.4	78	2	4.3
950	31	584	21.0	74	38	6.0
900	31	1,046	18.2	69	34	5.1
850	31	[illegible]	15.5	64	13	2.9
800	31	[illegible]	13.1	50	[illegible]	2.9
750	31	2,588	[illegible]	47	297	4.1
700	31	3,161	7.7	47	293	5.1
650	31	3,765	4.6		294	6.8
600	31	4,418	[illegible]		300	7.2
550	31	[illegible]	- 3.5		304	8.9
500	31	[illegible]	- 8.3		304	9.9
450	31	6,666	-13.7		302	11.9
400	31	7,567	-19.8		292	13.8
350	31	8,534	-26.8		290	15.7
300	31	9,628	-34.9		287	19.8
250	31	10,876	-44.5		281	22.7
200	31	12,334	-55.1		272	27.4
175	31	13,176	-61.0		277	28.8
150	31	14,121	-66.5		280	27.4
125	31	15,213	-71.0		288	20.8
100	30	16,521	-73.8		297	11.1
80	30	17,832	-70.3		320	2.9
70	30	18,638	-66.7		106	2.3
60	30	19,574	-62.5		127	4.5
50	30	20,707	-59.4		93	6.8
40	28	22,114	-55.7		85	9.7
30	26	23,961	-52.1		81	11.1
25	24	25,144	-49.2		79	12.8
20	24	26,615	-47.4		84	13.0
15	22	28,529	-45.1		72	11.1
10	21	31,251	-42.3		109	7.4
7	6	33,667	-38.8			
5						

MIDLAND, TEXAS
917 MB

Standard pressure surface (mb.)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind Direction	Wind Speed
SURFACE	31	874	13.8	85	205	1.4
1000	31	133				
950	31	570				
900	31	1,032	17.0	65	192	3.3
850	31	1,520	16.4	53	214	7.4
800	31	2,034	13.7	50	244	8.2
750	31	2,574	10.2	49	255	9.3
700	31	3,146	6.4	49	257	9.5
650	31	3,750	2.5	47	262	10.1
600	31	4,393	- 1.1	38	268	14.4
550	31	5,076	- 4.9		270	17.1
500	31	5,825	- 9.9		267	18.7
450	31	6,625	-15.4		267	21.4
400	31	7,509	-21.5		267	26.8
350	31	8,479	-28.6		268	32.6
300	31	9,566	-36.7		266	38.1
250	31	10,804	-45.8		268	46.0
200	30	12,255	-55.3		273	50.1
175	29	13,098	-60.0		272	46.4
150	29	14,049	-65.1		274	40.6
125	29	15,148	-69.3		278	29.5
100	29	16,470	-72.1		284	15.7
80	27	17,796	-69.4		297	8.0
70	27	18,608	-67.0		319	4.5
60	27	19,534	-64.3		331	3.7
50	27	20,658	-61.0		324	2.9
40	27	22,058	-57.2		306	2.9
30	27	23,897	-52.8		282	7.0
25	27	25,078	-51.0		271	9.5
20	24	26,532	-48.9		268	10.7
15	23	28,423	-47.8		279	12.2
10	18	31,103	-46.0		281	13.2
7	12	33,514	-41.9			
5	6	35,795	-38.7			

MONTGOMERY, ALA.
1011 MB

Standard pressure surface (mb.)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind Direction	Wind Speed
SURFACE	31	61	13.9	92	1	.6
1000	31	155	16.9	75	60	1.2
950	31	596	17.6	59	261	1.7
900	31	1,056	15.1	57	282	3.9
850	31	1,538	12.7	56	280	5.2
800	31	2,046	10.2	50	284	8.0
750	31	2,578	7.8	48	292	9.3
700	31	3,147	4.8	45	296	12.6
650	31	3,746	1.6	39	299	16.1
600	31	4,390	- 1.5	35	293	19.0
550	31	5,074	- 5.5		292	20.4
500	31	5,820	-10.4		291	22.3
450	31	6,620	-15.8		283	26.2
400	31	7,503	-21.9		283	27.6
350	31	8,473	-29.0		284	30.7
300	31	9,557	-37.4		286	33.2
250	31	10,792	-46.3		286	37.9
200	31	12,245	-55.4		289	41.6
175	31	13,088	-59.8		285	39.8
150	31	14,042	-64.0		286	35.2
125	31	15,146	-68.5		286	30.5
100	31	16,475	-70.0		290	22.2
80	30	17,814	-67.9		298	10.9
70	30	18,632	-65.6		298	5.8
60	30	19,566	-62.1		292	3.7
50	30	20,703	-58.7		294	3.3
40	28	22,118	-55.5		286	4.7
30	27	23,966	-52.0		287	7.0
25	26	25,155	-49.8		270	7.0
20	25	26,624	-47.9		274	10.7
15	18	28,533	-46.2		281	12.4
10						
7						
5						

NANTUCKET, MASS.
1014 MB

Standard pressure surface (mb.)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind Direction	Wind Speed
SURFACE	29	14	10.3	83	306	3.1
1000	29	130	10.9	76	258	2.7
950	29	553	9.1	71	288	6.6
900	29	1,004	7.2	64	283	9.1
850	29	1,474	5.7	61	283	13.6
800	29	1,969	4.2	50	286	17.7
750	29	2,482	2.0	49	282	21.8
700	29	3,046	- .3	48	275	24.9
650	29	3,632	- 2.9	47	274	28.4
600	29	4,267	- 6.3	43	267	31.7
550	29	4,935	-10.2	37	267	33.4
500	29	5,671	-14.9		268	37.7
450	29	6,451	-20.1		264	39.8
400	29	7,324	-26.4		266	43.7
350	29	8,276	-33.5		266	47.0
300	29	9,341	-41.5		261	50.7
250	29	10,557	-49.2		261	59.8
200	29	12,000	-55.1		264	62.2
175	29	12,848	-57.6		266	60.8
150	29	13,819	-59.2		263	51.7
125	29	14,955	-61.4		263	42.7
100	29	16,338	-61.7		262	30.1
80	29	17,723	-60.7		260	18.7
70	29	18,554	-59.7		257	13.8
60	29	19,521	-58.9		257	8.4
50	28	20,665	-58.0		257	9.3
40	27	22,072	-56.8		249	7.4
30	27	23,904	-54.5		248	8.5
25	27	25,075	-52.8		253	9.9
20	26	26,519	-50.8		257	14.2
15	23	28,398	-48.6		257	19.2
10	20	31,069	-45.5		261	30.3
7	11	33,530	-41.2			
5						

NASHVILLE, TENN.
997 MB

Standard pressure surface (mb.)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind Direction	Wind Speed
SURFACE	31	177	12.6	87	195	1.7
1000	31	149				
950	31	583	15.0	59	260	8.4
900	31	1,040	12.6	59	270	10.7
850	31	1,518	9.9	60	276	11.7
800	31	2,020	7.2	59	275	13.2
750	31	2,550	4.7	59	275	16.7
700	31	3,110	1.8	55	278	19.4
650	31	3,705	- 1.3	49	277	22.3
600	31	4,340	- 4.7	41	280	26.6
550	31	5,018	- 8.0	36	281	29.3
500	31	5,756	-12.8		280	32.1
450	31	6,553	-17.9		278	30.7
400	31	7,423	-24.2		278	29.7
350	31	8,384	-31.3		277	32.6
300	31	9,459	-39.3		281	40.0
250	31	10,686	-47.5		281	44.7
200	31	12,135	-54.9		277	45.7
175	31	12,982	-58.5		281	40.8
150	31	13,943	-62.4		283	40.8
125	31	15,060	-65.3		283	35.8
100	30	16,406	-67.4		292	26.2
80	29	17,758	-64.7		296	13.4
70	27	18,591	-63.4		285	6.2
60	27	19,528	-61.2		305	3.3
50	27	20,667	-59.0		273	2.3
40	27	22,073	-56.7		273	4.5
30	27	23,908	-53.9		288	7.8
25	26	25,090	-51.0		264	9.3
20	26	26,549	-48.7		272	14.6
15	26	28,445	-47.6		275	17.7
10	26	31,147	-44.2		275	19.8
7	23	33,547	-41.8		274	27.6
5	14	35,789	-39.5			

N. Y. INT. AP, IDLEWILD
1016 MB

Standard pressure surface (mb.)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind Direction	Wind Speed
SURFACE	31	5	11.1	79	314	4.5
1000	31	144	11.5	72	307	5.1
950	31	564	10.1	64	288	8.0
900	31	1,011	8.2	59	288	10.9
850	31	1,482	6.0	60	288	15.2
800	31	1,977	4.3	52	285	16.9
750	31	2,501	2.1	50	277	21.2
700	31	3,055	- .6	51	276	21.8
650	31	3,641	- 4.0	45	271	24.3
600	31	4,271	- 7.5	39	272	26.4
550	31	4,937	-11.5	37	270	30.5
500	31	5,669	-16.0	36	267	33.2
450	31	6,450	-21.2		266	36.9
400	31	7,316	-27.0		263	39.8
350	31	8,265	-33.7		263	42.0
300	31	9,330	-40.8		260	47.4
250	31	10,551	-48.3		261	51.9
200	30	11,990	-54.8		264	56.3
175	30	12,840	-57.1		263	51.7
150	30	13,812	-58.8		264	46.4
125	30	14,950	-61.3		268	37.1
100	30	16,331	-61.4		264	27.8
80	30	17,717	-60.6		266	20.4
70	30	18,557	-59.6		266	18.5
60	30	19,516	-58.8		265	11.7
50	30	20,662	-58.0		266	7.6
40	30	22,073	-56.5		260	6.4
30	29	23,906	-53.8		265	9.1
25	29	25,082	-52.1		263	9.3
20	23	26,523	-50.3		267	13.0
15	11	[illegible]	-48.3			
10						
7						
5						

NOME, ALASKA
1003 MB

Standard pressure surface (mb.)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind Direction	Wind Speed
SURFACE	31	7	- 2.8	78	24	6.2
1000	31	29			39	8.0
950	31	440	- 3.2	64	62	8.9
900	31	862	- 5.9	67	76	7.2
850	31	1,308	- 8.6	69	88	4.5
800	31	1,776	-10.8	64	83	3.5
750	31	2,269	-13.0	57	55	.6
700	31	2,794	-16.2	54		.0
650	31	3,342	-19.7	54	239	1.9
600	31	3,938	-23.1	50	229	3.7
550	31	4,566	-27.1	47	238	3.5
500	31	5,253	-31.6	43	237	6.0
450	31	5,982	-36.3		233	9.9
400	31	6,798	-42.0		233	11.1
350	31	7,691	-47.4		231	14.6
300	31	8,700	-51.6		237	17.3
250	31	9,882	-51.5		244	19.2
200	31	11,334	-50.1		243	19.6
175	31	12,207	-49.7		243	19.8
150	31	13,214	-50.2		244	19.4
125	31	14,404	-50.3		248	18.3
100	29	15,866	-50.2		249	19.0
80	27	17,334	-50.8		248	17.7
70	27	18,201	-50.9		248	18.7
60	27	19,205	-51.4		253	19.6
50	27	20,386	-51.8		256	21.6
40	26	21,840	-51.7		261	20.0
30	26	23,705	-51.6		264	22.5
25	26	24,887	-51.8		267	25.3
20	25	26,328	-52.2		271	28.6
15	18	28,218	-51.5		280	27.6
10	5	30,991	-52.1			
7						
5						

NORFOLK, VA.
1016 MB

Standard pressure surface (mb.)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind Direction	Wind Speed
SURFACE	31	9	13.4	87	328	2.1
1000	31	141	14.7	74	327	2.9
950	31	573	13.9	63	326	6.6
900	31	1,030	11.7	59	310	8.9
850	31	1,507	9.3	60	293	10.3
800	31	2,008	6.8	55	279	11.5
750	31	2,534	4.6	43	273	15.0
700	31	3,096	1.7	41	271	16.9
650	31	3,686	- 1.5	39	270	19.6
600	31	4,324	- 5.0	35	265	23.7
550	31	4,999	- 8.8		269	25.8
500	31	5,736	-13.1		268	30.7
450	31	6,526	-18.4		267	31.9
400	31	7,400	-24.7		266	35.8
350	31	8,358	-31.5		264	39.1
300	31	9,431	-39.2		262	44.1
250	31	10,657	-47.5		260	48.6
200	30	12,111	-55.2		264	47.0
175	30	12,954	-59.5		266	46.4
150	30	13,912	-62.5		268	42.6
125	30	15,030	-64.6		271	36.1
100	30	16,387	-65.1		270	27.6
80	30	17,749	-63.8		267	15.5
70	28	18,577	-61.9		255	13.4
60	28	19,524	-60.2		255	9.9
50	29	20,666	-58.3		265	6.6
40	27	22,078	-56.2		263	8.2
30	24	23,921	-52.7		252	8.9
25	23	25,103	-51.2		256	12.6
20	22	26,559	-49.1		270	14.2
15	16	28,468	-46.3		253	11.3
10	5	31,220	-43.7			
7						
5						

NORTH PLATTE, NEBR.
918 MB

Standard pressure surface (mb.)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind Direction	Wind Speed
SURFACE	31	848	5.0	80	319	2.1
1000	31	143				
950	31	570				
900	31	1,014	9.8	66	313	2.9
850	31	1,492	11.0	60	316	5.6
800	31	1,996	9.0	45	316	9.7
750	31	2,527	6.4	40	316	12.6
700	31	3,091	3.1	38	308	14.6
650	31	3,683		28	300	18.7
600	31	4,324	- 4.3	38	297	19.8
550	31	4,996	- 8.4	30	294	22.2
500	31	5,739	-12.8		292	24.3
450	31	6,525	-18.4		294	24.9
400	31	7,404	-25.2		296	28.2
350	31	8,358	-32.5		293	31.1
300	31	9,426	-40.8		297	33.2
250	31	10,643	-49.1		295	36.7
200	31	12,084	-55.6		294	38.5
175	31	12,929	-58.1		293	38.5
150	31	13,894	-61.0		290	35.8
125	30	15,014	-64.4		287	28.0
100	30	16,371	-66.		297	21.4
80	29	17,725	-64.3		298	14.4
70	29	18,549	-62.9		296	9.9
60	29	19,497	-61.4		298	7.2
50	28	20,630	-59.7		[illegible]	5.2
40	28	22,030	-58.1		313	5.2
30	28	23,853	-55.6		[illegible]	5.8
25	26	25,029	-54.0		294	6.0
20	26	26,466	-52.6		285	9.3
15	25	28,332	-50.0		270	16.1
10	20	30,985	-47.6		274	28.2
7	17	33,373	-45.1		271	36.7
5	10	35,601	-43.			

OAKLAND, CALIF.
1015 MB

Standard pressure surface (mb.)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind Direction	Wind Speed
SURFACE	31	6	13.1	86	12	1.6
1000	31	135	13.6	86	355	1.9
950	31	576	14.4	68	341	4.2
900	31	1,027	14.8	46	330	4.9
850	31	1,509	13.2	42	296	4.1
800	31	2,017	10.8	34	258	5.2
750	31	2,549	8.1	30	251	6.6
700	31	3,119	5.4		259	7.0
650	31	3,716	2.0	29	284	8.4
600	31	4,362	- 2.3		284	9.7
550	31	5,041	- 7.0		279	11.1
500	31	5,785	-11.7		278	13.4
450	31	6,576	-17.4		289	12.0
400	31	7,456	-24.2		301	10.5
350	31	8,416	-31.6		302	12.4
300	31	9,489	-39.7		298	19.7
250	31	10,714	-48.3		290	17.7
200	31	12,161	-54.8		277	22.2
175	31	13,010	-57.4		282	20.8
150	31	13,978	-60.6		274	21.6
125	31	15,106	-63.6		266	20.4
100	31	16,469	-65.2		261	17.7
80	30	17,825	-64.9		268	8.5
70	29	18,652	-63.4		263	5.4
60	29	19,597	-60.7		274	3.7
50	[illegible]	20,734	-59.5		307	[illegible]
40	[illegible]	22,139	-57.5		313	2.5
30	[illegible]	23,966	-55.1		292	5.6
25	28	25,133	-52.8		285	8.7
20	28	26,572	-52.1		268	11.7
15	27	28,445	-50.2		270	16.8
10	25	31,167	-47.1		272	25.6
7	[illegible]	33,487	-45.0		278	[illegible]
5	13	[illegible]	-43.6			

OKLAHOMA CITY, OKLA.
971 MB

Standard pressure surface (mb.)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind Direction	Wind Speed
SURFACE	31	392	[illegible]	85	[illegible]	[illegible]
1000	31	142				
950	31	581	[illegible]	70	266	4.1
900	31	1,036	15.3	57	240	11.9
850	31	1,519	13.6	49	257	12.8
800	31	2,028	[illegible]	44	269	11.9
750	31	2,561	[illegible]	47	274	13.0
700	31	3,130	[illegible]	45	280	15.3
650	31	3,726	1.1	39	280	17.9
600	31	4,370	- 2.3	34	281	18.7
550	31	5,047	- 6.5		274	20.8
500	31	[illegible]	-11.5		273	22.0
450	31	[illegible]	[illegible]		[illegible]	25.1
400	31	7,467	[illegible]		278	28.6
350	[illegible]	8,430	[illegible]		277	34.4
300	31	9,507	-38.6		275	44.7
250	[illegible]	10,738	[illegible]		275	49.7
200	[illegible]	12,190	[illegible]		277	51.3
175	[illegible]	13,036	[illegible]		276	46.8
150	[illegible]	13,994	[illegible]		276	42.0
125	[illegible]	15,108	[illegible]		280	[illegible]
100	[illegible]	16,446	[illegible]		[illegible]	22.5
80	[illegible]	17,786	[illegible]		[illegible]	[illegible]
70	27	18,601	[illegible]		305	[illegible]
60	[illegible]	19,540	[illegible]		314	6.4
50	[illegible]	20,673	[illegible]		304	[illegible]
40	[illegible]	22,073	[illegible]		289	[illegible]
30	[illegible]	23,908	[illegible]		281	[illegible]
25	[illegible]	25,088	[illegible]		281	8.4
20	[illegible]	26,550	[illegible]		[illegible]	14.4
15	18	28,457	[illegible]		275	17.5
10						
7						
5						

See reference note at end of table

RAWINSONDE DATA

Average monthly values

OCTOBER 1962

OLYMPIA, WASH. 1011 MB

Standard pressure surface (mb.)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind Direction	Wind Speed
SURFACE	27	58	8.0	93	227	2.1
1000	27	146			212	1.4
950	27	574	9.7	73	194	5.8
900	27	1,020	8.4	65	207	7.8
850	27	1,492	6.8	60	230	9.7
800	27	1,988	4.9	52	237	13.0
750	27	2,511	2.4	47	244	15.9
700	27	3,066	-.4	43	247	16.9
650	27	3,650	-4.[illegible]	44	246	19.4
600	27	4,283	-7.8	39	245	22.5
550	27	4,947	-12.3	40	245	26.6
500	27	5,675	-17.2		247	27.6
450	27	6,450	-22.9		244	30.7
400	27	7,310	-28.9	36	247	34.4
350	27	8,252	-35.5		252	36.9
300	27	9,307	-43.1		255	37.5
250	27	10,513	-51.0		256	37.1
200	27	11,948	-55.6		261	35.4
175	27	12,795	-57.3		260	33.4
150	27	13,765	-59.2		256	29.0
125	27	14,901	-61.0		258	25.1
100	27	16,283	-62.0		259	20.8
80	27	17,665	-61.4		263	13.0
70	27	18,504	-60.1		260	10.3
60	27	19,460	-59.7		263	8.4
50	27	20,601	-59.4		269	6.8
40	26	22,002	-58.8		282	5.2
30	25	23,806	-57.5		303	4.7
25	25	24,962	-56.4		294	4.7
20	22	26,374	-55.8		300	6.0
15	13	28,219	-54.1		300	7.8
10	5	30,839	-51.2			
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OMAHA, NEBR. 968 MB

Standard pressure surface (mb.)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind Direction	Wind Speed
SURFACE	31	403	9.7	84	282	1.7
1000	31	129				
950	31	556	11.2	73	298	3.9
900	31	1,010	10.7	62	314	7.4
850	31	1,486	9.6	48	310	8.7
800	31	1,987	7.3	41	304	11.7
750	31	2,511	4.9	38	309	16.7
700	31	3,077	2.0	38	307	20.8
650	31	3,663	-1.5	43	299	22.0
600	31	4,305	-5.2	44	295	26.2
550	31	4,974	-9.4	36	296	28.2
500	31	5,714	-13.8		299	33.0
450	31	6,495	-19.4		298	36.9
400	31	7,372	-26.0		298	39.4
350	31	8,325	-33.2		299	42.2
300	31	9,391	-41.2		297	43.5
250	31	10,608	-49.3		297	47.8
200	31	12,051	-54.8		291	48.4
175	31	12,900	-57.4		290	44.1
150	31	13,868	-60.2		287	42.0
125	31	14,996	-63.3		291	34.0
100	31	16,361	-64.5		292	26.4
80	31	17,727	-63.6		290	20.0
70	31	18,553	-62.4		293	14.8
60	31	19,505	-60.8		304	9.7
50	31	20,645	-58.9		306	6.2
40	29	22,048	-57.5		294	4.5
30	28	23,876	-55.3		293	3.9
25	26	25,051	-53.6		293	5.1
20	24	26,495	-51.7		285	4.5
15	16	28,412	-49.1		279	4.7
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PEORIA, ILL. 992 MB

Standard pressure surface (mb.)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind Direction	Wind Speed
SURFACE	30	200	9.3	92	211	1.7
1000	30	134				
950	30	565	11.7	70	264	9.1
900	30	1,015	10.4	63	279	13.2
850	30	1,490	7.8	60	278	14.4
800	30	1,988	5.1	55	276	16.1
750	30	2,511	2.3	53	276	17.9
700	30	3,068	-.5	48	280	20.0
650	30	3,653	-3.6	43	281	21.8
600	30	4,286	-7.0		282	24.3
550	30	4,956	-10.9		288	27.4
500	30	5,687	-15.4		291	31.9
450	30	6,468	-20.7		294	32.8
400	30	7,335	-27.2		293	35.6
350	30	8,284	-33.9		292	40.6
300	30	9,347	-41.1		292	44.9
250	30	10,565	-48.6		287	47.6
200	29	12,004	-54.2		285	57.9
175	29	12,857	-56.3		283	52.3
150	29	13,831	-58.7		284	47.2
125	29	14,966	-62.0		284	38.1
100	29	16,339	-63.1		284	27.2
80	28	17,711	-62.6		287	16.9
70	28	18,541	-61.2		293	11.7
60	28	19,498	-59.9		288	8.0
50	27	20,639	-58.8		303	4.7
40	27	22,045	-57.5		301	3.3
30	27	23,876	-54.7		296	4.9
25	25	25,060	-53.4		304	7.2
20	24	26,502	-50.8		281	12.6
15	24	28,387	-48.5		277	19.0
10	21	31,066	-45.2		277	30.1
7	18	33,470	-42.2		264	41.2
5	14	35,790	-38.8			

PITTSBURGH, PA. 976 MB

Standard pressure surface (mb.)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind Direction	Wind Speed
SURFACE	31	353	7.9	82	256	2.9
1000	31	148				
950	31	574	9.8	74	257	7.8
900	31	1,022	8.1	74	279	14.6
850	31	1,492	5.5	71	282	15.2
800	31	1,987	3.4	62	278	17.1
750	31	2,506	1.0	55	274	20.0
700	31	3,061	-1.7	44	272	23.9
650	31	3,645	-5.2	45	275	24.7
600	31	4,272	-8.7	42	274	28.0
550	31	4,932	-12.4	35	273	30.9
500	31	5,665	-16.7		275	31.9
450	31	6,440	-22.3		273	34.4
400	31	7,302	-28.5		273	38.7
350	31	8,247	-35.0		270	45.1
300	31	9,308	-41.8		271	49.4
250	31	10,526	-48.7		271	53.6
200	31	11,972	-54.7		271	55.0
175	29	12,822	-56.6		274	49.7
150	29	13,796	-59.3		272	45.3
125	29	14,931	-61.5		276	38.7
100	29	16,311	-62.0		272	28.2
80	29	17,692	-61.4		273	18.3
70	28	18,536	-61.0		269	14.6
60	28	19,491	-59.1		272	9.5
50	28	20,633	-59.3		296	4.1
40	28	22,036	-57.5		261	4.9
30	26	23,870	-54.7		280	4.9
25	25	25,037	-52.9		276	9.1
20	24	26,483	-50.1		271	14.8
15	23	28,368	-48.1		268	20.8
10	21	31,083	-44.3		261	30.5
7	14	33,462	-42.8		264	42.0
5	7	35,766	-39.3			

PONAPE, CAROLINE IS. 1005 MB

Standard pressure surface (mb.)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind Direction	Wind Speed
SURFACE	31	39	24.4	93	123	2.1
1000	31	81	25.1	90	119	2.5
950	31	529	24.0	83	96	6.6
900	31	1,007	21.2	82	98	7.6
850	31	1,502	18.3	81	97	7.2
800	31	2,020	15.5	79	97	7.6
750	31	2,565	12.8	77	98	7.2
700	31	3,145	9.7	75	103	8.4
650	31	3,756	6.2	74	98	9.7
600	31	4,411	2.5	74	97	10.9
550	31	5,105	-1.3	72	91	11.9
500	31	5,866	-5.5	67	98	10.9
450	31	6,685	-10.2	61	101	9.5
400	31	7,587	-15.8	55	103	7.8
350	31	8,581	-22.5	49	108	8.9
300	31	9,695	-30.9	46	83	6.0
250	31	10,962	-41.2		42	4.3
200	31	12,439	-53.4		32	8.2
175	31	13,285	-60.5		26	8.0
150	30	14,227	-68.1		16	7.0
125	29	15,300	-75.9		360	6.2
100	25	16,572	-80.8		52	3.9
80	23	17,839	-76.4		81	9.5
70	18	18,614	-72.9		86	10.7
60	17	19,531	-68.2		85	10.3
50	16	20,638	-64.5		104	14.6
40	16	22,010	-61.4		87	30.7
30	16	23,809	-58.1		87	51.9
25	16	24,965	-55.6		87	59.7
20	15	26,403	-51.1		88	65.9
15	14	28,299	-46.5		89	67.4
10	8	31,044	-41.5			
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PORTLAND, ME. 1013 MB

Standard pressure surface (mb.)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind Direction	Wind Speed
SURFACE	31	20	6.0	86	303	2.5
1000	31	122	7.2	74	283	2.5
950	31	546	6.8	68	309	3.9
900	31	988	5.2	65	305	5.6
850	31	1,453	3.2	63	308	9.3
800	31	1,944	1.5	58	297	11.5
750	31	2,465		51	285	14.2
700	31	3,014	-3.2	54	280	19.2
650	31	3,596	-5.7	51	277	20.8
600	31	4,224	-9.1	49	270	24.9
550	31	4,888	-13.0	45	268	29.3
500	31	5,615	-17.7	44	265	33.0
450	31	6,390	-22.5	42	265	39.4
400	31	7,253	-28.1	39	264	43.9
350	31	8,198	-34.9		254	48.2
300	31	9,257	-42.4		261	53.6
250	31	10,470	-49.4		261	56.5
200	31	11,918	-53.1		259	57.3
175	31	12,775	-54.9		261	51.3
150	31	13,756	-56.7		258	44.1
125	31	14,907	-58.2		258	37.7
100	31	16,309	-59.1		260	26.6
80	31	17,710	-58.5		258	20.6
70	31	18,552	-58.5		258	16.5
60	30	19,525	-58.0		263	13.0
50	29	20,681	-57.5		274	9.1
40	29	22,094	-56.7		270	6.6
30	27	23,926	-54.4		278	8.7
25	24	25,105	-53.1		278	9.5
20	21	26,550	-51.7		264	15.3
15	16	28,421	-48.4		261	21.4
10	8	31,191	-41.4			
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RAPID CITY, S. DAK. 905 MB

Standard pressure surface (mb.)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind Direction	Wind Speed
SURFACE	31	966	6.9	74	330	[illegible]
1000	31	139				
950	31	565				
900	31	1,015			325	4.1
850	31	1,490	9.4	53	293	8.7
800	31	1,991	7.3	49	294	11.1
750	31	2,514	4.3	47	296	12.8
700	31	3,078	1.3	43	297	15.5
650	31	3,667	-1.8	40	294	18.3
600	31	4,303	-5.4	39	294	20.0
550	31	4,975	-9.3	34	294	22.2
500	31	5,711	-14.2	30	295	24.3
450	31	6,495	-19.6	29	292	28.4
400	31	7,365	-25.9		291	29.7
350	31	8,317	-33.5		293	32.3
300	31	9,380	-42.0		291	39.1
250	31	10,590	-50.4		290	42.0
200	31	12,025	-56.2		292	45.9
175	31	12,870	-57.8		291	44.7
150	31	13,837	-60.5		289	37.7
125	31	14,964	-63.3		292	34.0
100	31	16,332	-64.3		296	23.9
80	30	17,703	-62.9		301	15.9
70	30	18,537	-62.0		312	12.4
60	30	19,485	-60.3		318	7.2
50	30	20,624	-59.9		320	5.4
40	30	22,022	-58.5		315	5.6
30	29	23,842	-56.6		314	4.1
25	27	24,999	-55.4		306	4.7
20	23	26,429	-53.7		322	3.7
15	9	28,350	-50.8			
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ST. CLOUD, MINN. 978 MB

Standard pressure surface (mb.)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind Direction	Wind Speed
SURFACE	31	316	6.2	86	288	1.4
1000	31	132				
950	31	558	8.3	75	301	4.1
900	31	1,001	7.3	67	311	8.2
850	31	1,470	5.1	59	322	10.9
800	31	1,964	3.1	49	319	13.2
750	31	2,483	.7	43	313	16.1
700	31	3,037	-1.8	38	307	21.4
650	31	3,620	-5.0	38	310	23.5
600	31	4,248	-8.7	37	309	27.2
550	31	4,911	-12.8	37	309	29.9
500	31	5,639	-17.2	38	307	32.8
450	31	6,412	-22.6	38	307	36.3
400	31	7,275	-28.7		309	42.7
350	31	8,217	-35.5		306	47.8
300	31	9,273	-43.1		305	48.6
250	31	10,481	-50.2		300	51.5
200	31	11,922	-54.3		301	52.7
175	31	12,775	-56.0		296	49.9
150	31	13,751	-57.9		296	46.4
125	30	14,887	-59.9		298	37.1
100	29	16,277	-61.1		296	24.7
80	28	17,678	-60.2		300	15.9
70	28	18,516	-60.0		308	11.9
60	28	19,475	-59.4		313	7.4
50	28	20,619	-58.9		320	3.5
40	28	22,024	-57.9		28	2.7
30	28	23,846	-56.5		327	3.1
25	28	25,006	-55.5		325	4.5
20	27	26,441	-54.0		293	9.5
15	24	28,301	-51.8		278	18.1
10	23	30,940	-48.5		265	28.4
7	19	33,327	-45.7		259	43.3
5	14	35,608	-41.5			

ST. PAUL IS., ALASKA 999 MB

Standard pressure surface (mb.)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind Direction	Wind Speed
SURFACE	31	10	2.5	87	329	4.5
1000	31	0			2	6.2
950	31	412		77	340	9.7
900	31	845	-2.9	76	337	8.7
850	31	1,296	-5.7	73	331	6.0
800	31	1,769	-7.8	57	326	8.4
750	31	2,269	-10.2	51	301	9.1
700	31	2,798	-13.1	47	302	8.4
650	31	3,358	-16.5	45	300	9.7
600	31	3,956	-20.4	43	297	9.9
550	31	4,592	-24.2	41	287	10.1
500	31	5,284	-29.0	39	281	8.5
450	31	6,026	-34.0		277	12.6
400	31	6,846	-39.4		278	14.4
350	31	7,749	-44.6		275	16.3
300	31	8,771	-48.4		276	20.4
250	31	9,968	-49.1		272	19.6
200	31	11,434	-48.5		266	20.0
175	31	12,311	-49.2		265	22.7
150	31	13,320	-50.0		266	23.3
125	31	14,509	-50.6		262	21.6
100	31	15,961	-50.9		256	21.6
80	29	17,410	-51.3		254	19.8
70	29	18,283	-51.4		254	18.8
60	29	19,278	-51.3		255	19.4
50	29	20,462	-51.4		255	20.8
40	29	21,911	-51.4		254	18.5
30	27	23,765	-50.8		250	14.6
25	27	24,952	-50.6		260	12.0
20	26	26,412	-50.3		275	9.3
15	22	28,281	-50.0		266	12.4
10	7	30,859	-49.6			
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SALEM, OREG. 1012 MB

Standard pressure surface (mb.)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind Direction	Wind Speed
SURFACE	29	61	8.2	93	181	2.3
1000	29	155	10.0	87	159	.8
950	29	580	10.1	77	179	3.1
900	29	1,034	10.0	62	211	5.4
850	29	1,508	8.3	56	226	7.6
800	29	2,007	6.4	43	237	9.5
750	29	2,529	4.0	40	241	10.9
700	29	3,093	1.1	40	250	11.7
650	29	3,678	-2.7	39	247	14.0
600	29	4,315	-6.4		249	17.7
550	29	4,981	-10.5		253	20.4
500	29	5,717	-15.3		253	24.5
450	29	6,496	-21.0		249	29.7
400	29	7,364	-27.1		253	29.3
350	29	8,314	-34.0		259	27.2
300	29	9,374	-42.2		265	30.5
250	28	10,594	-51.1		269	29.9
200	28	12,026	-56.6		277	26.6
175	28	12,870	-57.9		276	26.8
150	28	13,838	-60.0		267	24.5
125	28	14,971	-62.2		264	22.3
100	28	16,344	-63.7		258	16.9
80	27	17,716	-62.4		274	11.1
70	27	18,547	-61.4		277	8.9
60	27	19,499	-60.6		270	6.8
50	27	20,635	-60.1		278	5.1
40	25	22,032	-58.8		300	5.1
30	24	23,845	-57.0		305	5.4
25	23	25,002	-56.2		304	6.2
20	19	26,429	-54.8		295	8.5
15	13	28,231	-53.9		317	8.4
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SALT LAKE CITY, UTAH 874 MB

Standard pressure surface (mb.)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind Direction	Wind Speed
SURFACE	30	1,288	7.1	65	170	6.6
1000	30	164				
950	30	594				
900	30	1,049				
850	30	1,524	12.5	43	176	8.5
800	30	2,031	10.7	37	181	9.1
750	30	2,561	7.5	37	207	6.0
700	30	3,131	4.0	36	247	6.0
650	30	3,728	.2	39	273	7.2
600	30	4,367	-3.4	39	266	9.1
550	30	5,044	-7.7	37	269	10.9
500	30	5,785	-12.5	32	278	12.6
450	30	6,576	-18.3	30	273	13.4
400	30	7,450	-24.5		265	15.2
350	30	8,407	-32.4		263	14.8
300	30	9,474	-41.0		266	15.2
250	30	10,690	-49.3		265	19.2
200	30	12,127	-56.7		262	23.3
175	30	12,968	-59.3		264	24.9
150	30	13,925	-62.4		265	24.3
125	30	15,042	-65.6		265	22.9
100	28	16,392	-66.6		275	16.7
80	27	17,746	-65.4		298	9.7
70	26	18,566	-63.9		313	7.2
60	26	19,509	-62.9		334	6.0
50	26	20,637	-60.9		334	4.1
40	25	22,030	-59.4		338	4.3
30	25	23,843	-56.5		311	6.0
25	25	25,004	-55.0		290	8.0
20	23	26,434	-53.2		280	13.2
15	20	28,297	-51.6		281	19.8
10	8	30,939	-49.3			
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SAN ANTONIO, TEXAS 988 MB

Standard pressure surface (mb.)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind Direction	Wind Speed
SURFACE	31	243	19.4	80	69	1.4
1000	31	141				
950	31	586	19.2	73	156	6.0
900	31	1,049	17.5	66	185	10.9
850	31	1,536	15.2	61	196	9.9
800	31	2,049	12.6	57	209	8.2
750	31	2,590	10.2	48	229	7.4
700	31	3,160	7.2	40	258	6.6
650	31	3,763	3.5	38	273	8.7
600	31	4,412		30	273	11.3
550	31	5,097	-4.3		270	14.0
500	31	5,850	-9.0		268	15.9
450	31	6,655	-14.5		269	19.0
400	31	7,542	-20.6		273	23.1
350	31	8,515	-27.6		274	30.1
300	31	9,605	-36.0		274	34.4
250	31	10,846	-45.3		275	42.6
200	30	12,304	-55.7		276	45.7
175	30	13,144	-61.1		275	40.2
150	30	14,089	-66.1		277	35.9
125	28	15,177	-70.8		279	27.4
100	26	16,483	-73.3		282	18.5
80	25	17,794	-70.0		321	5.2
70	25	18,605	-67.4		6	5.4
60	25	19,532	-63.2		80	3.9
50	25	20,663	-59.6		94	2.1
40	25	22,070	-56.4		136	1.4
30	25	23,915	-52.1		121	1.0
25	24	25,104	-50.2		313	.6
20	22	26,576	-48.5		283	2.3
15	15	28,480	-46.3			
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SAN DIEGO, CALIF. 1000 MB

Standard pressure surface (mb.)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind Direction	Wind Speed
SURFACE	31	124	14.0	87	355	.6
1000	31	124				1.7
950	31	561	16.5	61	128	1.6
900	31	1,021	17.0	44	338	1.4
850	31	1,507	15.1	34	308	4.1
800	31	2,018	12.2	31	296	3.5
750	31	2,548	8.8	31	302	4.1
700	31	3,124	5.3	30	310	4.7
650	31	3,719	1.9		304	7.4
600	31	4,368	-1.6		294	9.7
550	31	5,048	-5.9		272	10.7
500	31	5,797	-11.0		267	12.4
450	31	6,591	-16.9		268	14.8
400	31	7,473	-23.7		268	16.7
350	31	8,436	-30.4		265	18.5
300	31	9,515	-38.0		260	21.8
250	31	10,751	-45.4		256	27.4
200	31	12,215	-53.1		253	34.6
175	31	13,068	-57.0		250	33.0
150	31	14,034	-61.7		252	30.1
125	31	15,151	-66.2		257	23.9
100	31	16,492	-69.1		259	14.6
80	31	17,824	-68.2		260	8.4
70	31	18,636	-65.7		291	3.9
60	31	19,572	-63.7		59	1.0
50	31	20,699	-60.7		86	2.1
40	30	22,094	-57.9		24	2.7
30	30	23,924	-53.9		312	2.1
25	26	25,095	-51.7		268	6.2
20	26	26,548	-50.1		271	11.3
15	21	28,422	-48.9		273	15.2
10	[illegible]	31,120	-46.5			
7						
5						

SAN JUAN, P. R. 1013 MB

Standard pressure surface (mb.)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind Direction	Wind Speed
SURFACE	31	6	24.7	86	169	1.7
1000	31	120	25.0	80	127	6.2
950	31	564	22.7	77	124	9.9
900	31	1,040	19.8	73	123	7.8
850	31	1,531	16.9	72	118	7.4
800	31	2,046	14.0	67	107	6.6
750	31	2,583	11.3	60	87	6.2
700	31	3,162	8.3	52	110	6.6
650	31	3,764	5.0	45	101	5.1
600	31	4,419	1.5	40	85	3.3
550	31	5,107	-2.5	35	72	2.3
500	31	5,865	-6.8		77	.8
450	31	6,668	-11.9		14	2.5
400	31	7,571	-17.5		338	3.5
350	31	8,557	-24.6		336	5.4
300	31	9,659	-33.1		339	6.6
250	31	10,913	-43.3		335	9.1
200	31	12,375	-55.5		331	12.4
175	31	13,213	-61.7		325	15.2
150	31	14,151	-68.8		325	13.6
125	31	15,225	-74.3		323	11.7
100	31	16,516	-76.1		358	6.8
80	31	17,815	-71.7		50	8.2
70	31	18,614	-67.5		77	9.9
60	30	19,549	-64.1		88	13.6
50	29	20,673	-60.5		85	19.0
40	28	22,076	-56.6		90	24.5
30	26	23,923	-51.8		91	29.7
25	26	25,109	-50.3		94	35.2
20	25	26,577	-47.8		94	36.1
15	21	28,493	-44.6		92	32.4
10	21	31,227	-41.2		78	23.7
7	10	33,673	-36.1			
5	5	36,[illegible]56	-32.9			

SANTA MONICA, CALIF. 1011 MB

Standard pressure surface (mb.)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind Direction	Wind Speed
SURFACE	31	38	15.4	83	41	2.7
1000	31	129	15.9	79	51	2.5
950	31	569	16.1	63	81	3.9
900	31	1,027	16.9	43	39	3.1
850	31	1,513	15.1	37	348	2.9
800	31	2,023	12.2	32	325	3.5
750	31	2,559	9.0	31	331	3.9
700	31	3,128	5.3	31	316	3.1
650	31	3,725	1.7	28	311	5.4
600	31	4,371	-2.2		307	8.0
550	31	5,050	-6.4		299	8.4
500	31	5,795	-11.8		299	10.1
450	31	6,587	-17.8		298	10.7
400	31	7,464	-23.8		290	11.3
350	31	8,425	-31.0		289	13.0
300	31	9,501	-38.7		271	14.8
250	31	10,731	-46.7		264	19.6
200	31	12,187	-53.7		255	26.4
175	31	13,038	-57.5		250	29.1
150	31	14,003	-61.5		253	27.4
125	31	15,120	-66.3		255	22.0
100	31	16,461	-68.9		258	15.0
80	31	17,797	-67.9		261	9.1
70	31	18,610	-65.5		258	4.9
60	31	19,547	-63.1		21	2.3
50	31	20,675	-60.8		32	1.6
40	30	22,074	-57.9		25	1.7
30	29	23,899	-54.6		309	3.3
25	29	25,071	-52.4		284	5.4
20	28	26,521	-50.6		268	11.3
15	18	28,407	-49.6		274	17.9
10						
7						
5						

See reference note at end of table

RAWINSONDE DATA

Average monthly values

OCTOBER 1962

Standard pressure surface (mb.)	SAULT STE. MARIE, MICH. 987 MB						SHEMYA, ALASKA 1003 MB						SHREVEPORT, LA. 1009 MB						SPOKANE, WASH. 934 MB						SWAN ISLAND, W. I. 1011 MB					
	Number of observations	Dynamic height	Temperature	Relative humidity	Wind Direction	Wind Speed	Number of observations	Dynamic height	Temperature	Relative humidity	Wind Direction	Wind Speed	Number of observations	Dynamic height	Temperature	Relative humidity	Wind Direction	Wind Speed	Number of observations	Dynamic height	Temperature	Relative humidity	Wind Direction	Wind Speed	Number of observations	Dynamic height	Temperature	Relative humidity	Wind Direction	Wind Speed
SURFACE	31	221	6.4	87	36	1.6	31	38	4.9	82	284	4.1	31	79	17.9	87	190	2.1	31	722	5.2	89	135	3.3	31	1	26.1	85	74	3.7
1000	31	114					31	61			290	8.0	31	152	18.1	81	191	3.9	31	158					31	106	26.1	80	72	5.6
950	31	534	6.7	75	282	1.0	31	477	1.9	76	293	8.5	31	597	17.3	67	223	7.4	31	583					31	555	23.5	79	82	10.3
900	31	979	4.9	67	275	6.2	31	912	- 1.2	73	290	9.5	31	1,053	15.4	61	241	8.2	31	1,027	8.3	75	184	4.5	31	1,030	20.5	78	91	10.3
850	31	1,444	2.8	66	289	9.5	31	1,366	- 4.1	71	287	9.9	31	1,536	13.3	57	259	8.0	31	1,499	6.9	64	227	7.8	31	1,523	17.4	77	94	10.1
800	31	1,933	.3	59	286	11.5	31	1,842	- 6.5	64	286	11.5	31	2,044	10.5	57	273	9.5	31	1,996	4.9	55	245	10.3	31	2,039	14.5	75	100	9.7
750	31	2,449	- 2.3	56	289	11.9	31	2,346	- 8.3	48	283	14.4	31	2,578	7.6	53	278	10.5	31	2,518	2.2	54	253	12.6	31	2,582	11.7	70	106	8.9
700	31	2,993	- 5.1	53	287	15.3	31	2,879	-10.8	42	280	16.9	31	3,145	4.4	48	280	11.5	31	3,075	- .6	47	259	14.4	31	3,159	8.8	62	113	8.2
650	31	3,572	- 8.1	48	283	18.1	31	3,446	-13.4	38	279	19.0	31	3,744	.8	42	280	13.4	31	3,659	- 3.7	43	261	16.5	31	3,767	5.4	56	115	8.4
600	31	4,190	-12.0	44	283	18.1	31	4,051	-16.8	36	277	21.6	31	4,384	- 2.3		282	16.3	31	4,292	- 7.5	41	263	20.0	31	4,421	1.8	57	108	7.0
550	31	4,846	-15.0	40	283	20.2	31	4,697	-20.7	29	274	25.8	31	5,068	- 6.1		282	19.0	31	4,959	-11.7	44	256	24.7	31	5,111	- 2.1	54	101	5.2
500	31	5,563	-20.5	39	286	24.1	31	5,400	-24.9		277	30.1	31	5,810	-10.6		277	23.7	31	5,689	-16.1	41	254	29.3	31	5,869	- 6.4	47	92	5.1
450	31	6,334	-25.7		282	27.8	31	6,152	-29.9		276	34.4	31	6,608	-16.2		277	25.1	31	6,465	-21.5	38	258	33.2	31	6,679	-11.1	42	85	5.1
400	30	7,171	-31.8		284	34.0	31	6,990	-35.6		274	39.1	31	7,489	-22.3		283	29.0	31	7,332	-28.0	44	256	35.0	31	7,581	-16.9	40	42	3.1
350	30	8,103	-38.3		290	37.9	31	7,908	-41.4		271	44.9	31	8,457	-29.3		284	30.9	31	8,278	-34.[illegible]	4[illegible]	265	35.9	31	8,569	-23.7		339	2.1
300	30	9,148	-44.9		291	40.4	31	8,942	-46.2		270	56.3	31	9,539	-37.7		282	31.7	31	9,3[illegible]	-42.9		266	38.7	31	9,677	-32.0		306	2.7
250	30	10,354	-49.5		287	45.3	31	10,145	-49.2		264	57.9	31	10,772	-46.7		282	37.7	31	10,543	-51.2		268	39.8	31	10,936	-42.5		275	5.8
200	29	11,800	-52.5		290	44.7	31	11,604	-50.3		266	59.8	30	12,224	-55.6		282	39.4	31	11,975	-55.5		271	36.3	30	12,404	-54.9		277	8.4
175	29	12,661	-53.9		289	41.0	31	12,474	-51.0		269	57.7	28	13,1[illegible]	-61.2		282	36.7	31	12,826	-56.2		268	27.9	30	13,243	-62.0		274	12.2
150	29	13,648	-55.6		290	35.2	30	13,475	-52.6		269	50.9	26	14,003	-64.6		283	32.2	31	13,803	-57.7		26[illegible]	35.0	30	14,178	-69.5		288	13.0
125	29	14,806	-57.1		288	30.1	30	14,648	-53.9		267	47.6	26	15,105	-69.0		282	29.3	31	14,948	-60.0		274	28.8	3[illegible]	15,248	-74.9		325	7.8
100	29	16,214	-57.8		289	2[illegible].3	28	16,068	-54.0		267	39.8	26	16,430	-71.4		286	22.7	31	16,335	-61.[illegible]		271	23.9	29	16,530	-77.6		49	5.2
80	29	17,621	-57.9		284	16.5	25	17,498	-53.7		267	35.2	26	17,754	-69.1		293	10.1	31	17,724	-60.[illegible]		271	15.7	27	17,815	-74.9		60	8.7
70	29	18,468	-57.5		291	12.8	25	18,362	-53.7		267	31.3	25	18,564	-66.5		298	4.7	31	18,562	-59.3		269	13.6	27	18,607	-69.8		80	12.6
60	29	19,438	-57.5		294	10.7	24	19,340	-53.6		266	27.4	25	19,500	-63.5		281	4.1	31	19,525	-59.0		275	11.5	27	19,528	-65.8		89	18.1
50	29	20,590	-57.2		301	7.4	24	20,513	-53.6		264	22.9	25	20,629	-59.7		275	2.9	30	20,669	-59.0		277	8.5	27	20,646	-61.8		90	21.4
40	29	22,002	-56.9		314	5.8	24	21,949	-53.1		261	21.4	24	22,032	-56.8		267	5.1	30	22,072	-57.9		274	7.6	27	22,042	-57.7		94	27.0
30	28	23,837	-55.6		309	6.6	22	23,811	-52.3		258	17.3	23	23,972	-53.3		270	10.5	28	23,889	-56.9		296	6.6	27	23,875	-53.8		91	34.8
25	27	25,003	-54.6		306	8.2	22	24,999	-51.3		258	14.2	21	25,055	-50.7		279	11.3	24	25,051	-55.7		305	7.0	4	25,056	-51.[illegible]		90	39.4
20	26	26,426	-53.6		285	9.3	15	26,433	-50.2		243	14.0	19	26,510	-48.6		274	13.2	21	26,468	-55.[illegible]		311	8.5	1	26,515	-48.5		90	43.3
15	23	28,285	-51.3		280	19.6	9	28,396	-48.2				17	28,394	-48.0		275	17.7	19	28,315	-54.1		299	11.3	6	28,417	-45.3			
10	21	30,928	-48.4		269	29.6							16	31,077	-45.7		281	21.2	5	30,877	-5[illegible].9									
7	17	33,247	-47.0		267	46.2							1	33,436	-42.9		271	27.8												
5	14	35,464	-43.1										6	35,729	-39.8															

Standard pressure surface (mb.)	TAMPA, FLA. 1016 MB						TATOOSH IS., WASH 1012 MB						TOPEKA, KANS. 984 MB						TRUK, CAROLINE IS. 1010 MB						TUCSON, ARIZ. 924 MB					
	Number of observations	Dynamic height	Temperature	Relative humidity	Wind Direction	Wind Speed	Number of observations	Dynamic height	Temperature	Relative humidity	Wind Direction	Wind Speed	Number of observations	Dynamic height	Temperature	Relative humidity	Wind Direction	Wind Speed	Number of observations	Dynamic height	Temperature	Relative humidity	Wind Direction	Wind Speed	Number of observations	Dynamic height	Temperature	Relative humidity	Wind Direction	Wind Speed
SURFACE	31	8	19.0	87	37	5.6	31	31	11.3	87	126	6.8	31	269	11.3	88	26	1.4	31	2	25.8	90	115	1.4	31	789	15.4	52	147	6.4
1000	31	144	21.1	75	44	7.0	31	131			126	7.4	31	133					31	86	26.3	85	109	1.4	31	112				
950	31	587	19.7	65	46	5.2	31	555	10.1	77	188	10.5	31	565	13.0	70	244	3.7	31	536	24.2	82	117	2.9	31	551				
900	31	1,053	17.2	62	12	2.1	31	1,008	8.1	77	212	11.5	31	1,019	12.1	60	278	7.8	31	1,013	21.3	79	140	3.1	31	1,016	20.1	39	141	6.0
850	31	1,540	14.6	54	324	4.3	31	1,478	5.8	74	226	12.6	31	1,497	10.9	51	292	10.1	31	1,507	18.6	78	152	3.7	31	1,507	17.8	28	149	3.7
800	30	2,050	12.5	43	315	2.3	31	1,972	3.3	71	225	13.4	31	2,000	8.0	44	295	12.0	31	2,027	15.7	77	134	4.7	31	2,022	13.9	43	165	6.2
750	30	2,585	10.1	32	299	4.5	31	2,487	.9	66	245	16.9	31	2,526	5.3	40	290	15.2	31	2,574	12.9	75	115	5.4	31	2,559	10.1	42	209	10.3
700	30	3,160	7.3	31	308	5.4	31	3,045	- 2.0	61	245	20.0	31	3,091	2.1	41	291	17.9	31	3,151	10.0	72	108	6.4	31	3,133	6.8	36	216	13.0
650	30	3,765	4.0	31	296	7.2	31	3,622	- 5.5	55	245	23.5	31	3,679	- 1.3	36	298	20.2	31	3,765	6.4	71	108	6.8	31	3,736	3.3		231	14.6
600	30	4,413	.2		287	5.9	31	4,254	- 9.3	48	248	26.6	31	4,319	- 4.7	35	296	20.4	31	4,418	2.8	71	111	8.7	31	4,383	- .5		238	15.2
550	30	5,096	- 3.9		284	11.7	31	4,911	-13.4	48	247	28.6	31	4,991	- 8.5		294	23.1	31	5,115	- 1.0	69	106	10.1	31	5,067	- 5.1		235	17.1
500	30	5,852	- 8.9		278	13.4	31	5,640	-18.2	46	248	29.9	31	5,731	-13.3		294	25.3	31	5,875	- 5.1	63	106	9.7	31	5,815	-10.6		242	19.4
450	30	6,653	-14.6		287	15.5	31	6,406	-23.5	45	249	31.7	31	6,515	-19.3		298	27.2	31	6,693	- 9.8	60	106	9.1	31	6,614	-15.6		243	23.1
400	30	7,542	-20.4		287	18.5	31	7,269	-29.9	44	251	34.0	31	7,389	-25.8		297	31.3	31	7,597	-15.5	53	98	8.7	31	7,499	-22.2		244	28.0
350	30	[illegible],516	-27.5		282	22.0	31	8,207	-36.5		253	36.9	31	8,344	-32.7		297	35.6	31	8,592	-22.2	45	99	8.7	31	8,467	-29.1		245	33.8
300	30	9,605	-35.7		285	26.4	31	9,258	-43.7		259	40.8	31	9,414	-40.7		291	40.8	31	9,706	-30.6	38	81	7.4	31	9,551	-36.6		247	40.8
250	30	10,847	-44.9		283	31.3	31	10,465	-50.2		263	42.6	31	10,637	-48.2		287	47.8	31	10,974	-40.9		77	10.1	31	10,792	-45.[illegible]		249	46.4
200	30	12,303	-55.4		283	32.6	31	11,905	-54.2		264	42.0	30	12,085	-54.7		286	49.4	29	12,452	-53.2		66	9.1	31	12,254	-53.5		251	47.4
175	30	13,144	-60.5		281	32.6	31	12,758	-55.6		265	41.0	30	12,934	-58.2		285	48.4	28	13,295	-60.2		50	8.9	31	13,103	-58.4		253	43.9
150	30	14,090	-65.7		283	30.9	31	13,737	-57.0		260	35.2	30	13,899	-61.5		285	43.5	28	14,238	-67.8		65	7.0	31	14,062	-62.9		253	36.3
125	30	15,183	-70.4		284	25.5	31	14,885	-59.0		258	31.3	30	15,023	-64.8		286	36.9	26	15,315	-75.5		41	11.7	31	15,172	-67.9		257	27.4
100	30	16,498	-72.4		287	17.5	30	16,286	-60.6		264	24.3	30	16,380	-66.1		289	27.0	24	16,583	-81.3		68	13.8	31	16,501	-70.4		259	16.9
80	30	17,814	-70.2		305	7.0	30	17,676	-59.8		256	19.6	30	17,735	-65.2		287	16.1	21	17,852	-76.6		94	12.8	31	17,828	-69.1		269	7.4
70	30	18,625	-66.4		345	1.2	30	18,515	-58.8		257	17.7	30	18,559	-63.7		287	11.9	21	18,629	-72.1		94	10.3	31	18,641	-66.8		304	2.5
60	29	19,558	-61.9		142	1.7	30	19,481	-58.3		269	11.3	30	19,500	-61.7		300	9.5	21	19,547	-68.2		95	10.9	31	19,568	-63.9		72	2.5
50	29	20,696	-58.7		188	1.9	30	20,627	-58.6		260	9.5	29	20,642	-59.6		313	4.9	21	20,653	-64.2		92	16.7	31	20,695	-60.7		64	2.1
40	29	22,108	-55.8		74	3.1	30	22,031	-58.0		275	6.8	29	22,043	-57.8		306	3.9	20	22,030	-61.3		99	20.1	31	22,093	-57.7		4	1.7
30	24	23,957	-52.0		86	9.9	30	23,845	-57.1		275	7.0	28	23,872	-54.9		302	3.7	19	23,836	-57.2		94	56.5	31	23,927	-53.3		287	5.1
25	20	25,145	-50.0		78	6.0	28	25,069	-56.0		276	7.6	25	25,040	-52.9		307	4.5	19	24,996	-54.7		94	60.4	31	25,107	-51.1		275	7.8
20	15	26,614	-47.2		98	2.9	27	26,427	-55.4		289	10.3	14	26,488	-50.0				17	26,439	-50.0		94	70.7	30	26,562	-49.5		277	10.9
15	8	28,563	-45.6				23	28,271	-54.2		296	11.3							1[illegible]	28,342	-45.9		93	79.5	3[illegible]	28,452	-48.3		280	12.8
10							[illegible]	[illegible],884	-52.7		289	16.9							6	31,103	-36.2				24	31,139	-46.4		285	10.9
7							15	33,268	-48.4		290	20.2													1[illegible]	33,517	-44.7		245	9.7

Standard pressure surface (mb.)	WAKE IS., PACIFIC AREA 1013 MB						WASHINGTON, D. C. 1017 MB						WINNEMUCCA, NEV. 871 MB						WINSLOW, ARIZ. 854 MB						YAKUTAT, ALASKA 1003 MB					
	Number of observations	Dynamic height	Temperature	Relative humidity	Wind Direction	Wind Speed	Number of observations	Dynamic height	Temperature	Relative humidity	Wind Direction	Wind Speed	Number of observations	Dynamic height	Temperature	Relative humidity	Wind Direction	Wind Speed	Number of observations	Dynamic height	Temperature	Relative humidity	Wind Direction	Wind Speed	Number of observations	Dynamic height	Temperature	Relative humidity	Wind Direction	Wind Speed
SURFACE	30	5	26.7	83	89	11.3	31	84	8.1	82	291	1.7	31	1,310	3.9	59	202	1.6	31	1,492	7.3	72	159	3.3	31	12	4.3	91	97	5.4
1000	30	123	25.7	83	84	17.1	31	141			279	3.7	31	166					31	163					31	34			104	7.6
950	30	572	22.6	81	93	18.5	31	574	11.7	64	291	8.9	31	592					31	593					31	451	5.3	76	127	10.7
900	30	1,045	19.5	80	97	17.7	31	1,022	9.3	66	294	13.0	31	1,044					31	1,051					31	89[illegible]	2.2	74	138	12.0
850	30	1,536	17.0	76	100	15.7	31	1,494	6.8	65	294	14.6	31	1,513	10.5	44	17	1.4	31	1,529			153	3.3	31	1,352	- .9	77	149	12.2
800	30	2,053	14.4	71	106	11.9	31	1,992	5.0	54	288	14.8	31	2,018	9.6	41	351	1.7	31	2,035	11.6	43	186	4.3	31	1,834	- 3.5	78	149	10.5
750	30	2,593	12.0	61	103	11.1	31	2,517	2.8	50	274	16.9	31	2,547	6.3	41	250	4.3	31	2,569	8.6	39	206	6.0	31	2,337	- 7.1	77	170	12.6
700	30	3,173	9.3	59	102	9.1	31	3,073	- .2	46	273	18.1	31	3,114	3.2	39	238	5.6	31	3,136	4.9	38	200	9.5	31	2,876	-10.7	70	176	14.6
650	30	3,777	5.7	56	103	8.1	31	3,663	- 3.7	47	273	20.6	31	3,710	- .1	36	247	7.6	31	3,735	1.5		206	10.5	31	3,43[illegible]	-14.2	64	187	14.0
600	30	4,434	2.1	54	96	9.2	31	4,291	- 7.4	43	272	22.9	31	4,348	- 3.7		243	8.7	31	4,381	- 1.7		219	12.0	31	4,045	-18.3	59	192	14.8
550	30	5,128	- 1.8	50	86	10.3	31	4,965	-10.9		271	28.4	31	5,027	- 8.0		245	13.8	31	5,060	- 6.1		228	12.0	31	4,683	-22.8	56	196	16.1
500	30	5,885	- 6.2	47	76	10.5	31	5,692	-15.3		273	31.7	31	5,766	-12.8		243	14.4	31	5,807	-11.4		232	12.4	31	5,382	-27.5	55	202	19.2
450	30	6,698	-11.1	43	51	10.3	31	6,479	-20.5		271	33.2	31	6,557	-18.7		249	13.2	31	6,598	-17.6		233	13.4	30	6,120	-32.6	53	207	20.8
400	30	7,598	-16.9	49	57	6.6	31	7,344	-26.6		271	37.3	31	7,430	-25.[illegible]		249	16.9	31	7,477	-24.3		230	15.2	30	6,952	-38.3		210	21.0
350	30	8,587	-22.9	46	107	4.5	31	8,296	-33.4		269	41.6	31	8,385	-32.7		244	16.7	31	8,436	-31.6		230	16.9	3[illegible]	7,950	-44.3		208	21.0
300	30	9,694	-32.4	41	151	4.1	30	9,354	-40.9		269	45.7	31	9,453	-41.2		241	15.3	31	9,548	-39.3		237	17.3	30	8,879	-49.7		223	21.2
250	30	10,953	-42.6		226	2.7	30	10,576	-47.8		266	48.2	31	10,668	-49.6		268	8.5	31	10,735	-47.2		243	23.5	30	10,066	-50.6		230	26.8
200	29	12,421	-54.5		316	2.7	30	12,[illegible]4	-54.8		265	49.0	31	12,107	-55.4		[illegible]	10.4	31	12,187	-54.5		243	30.5	3[illegible]	11,523	-50.2		236	29.5
175	29	13,264	-61.1		335	4.3	30	12,872	-58.0		265	46.0	30	12,948	-58.1		269	13.4	31	13,034	-58.5		248	29.7	30	12,395	-50.1		240	25.5
150	29	14,206	-67.6		353	7.0	30	13,833	-60.7		266	37.7	30	13,914	-59.0		268	17.7	31	13,993	-63.0		257	27.6	30	13,401	-50.7		237	32.1
125	28	15,288	-72.9		28	10.7	30	14,965	-63.2		266	32.8	30	15,042	-63.7		262	15.0	31	15,102	-67.5		260	22.9	30	14,588	-51.7		243	27.8
100	23	16,580	-77.3		64	20.9	3[illegible]	16,33[illegible]	-63.9		264	25.3	30	16,406	-65.1		267	13.6	31	16,434	-70.2		265	16.1	[illegible]	16,038	-51.7		244	24.7
80	22	17,865	-75.3		76	20.6	29	17,705	-62.1		267	16.5	29	17,766	-64.[illegible]		269	8.9	31	17,764	-68.6		274	9.5	[illegible]	17,483	-52.4		243	19.0
70	22	18,644	-71.6		76	19.8	28	18,541	-61.2		267	12.0	28	18,593	-62.6		295	4.5	31	18,5[illegible]	-66.6		286	5.6	28	18,350	-52.[illegible]		245	19.4
60	20	19,568	-66.3		81	19.4	27	19,494	-60.1		261	9.5	28	19,541	-61.2		290	2.1	31	19,508	-63.6		282	2.3	26	19,350	-53.0		248	22.2
50	20	20,684	-62.4		82	22.0	26	20,636	-59.0		271	7.0	28	20,676	-59.9		328	1.6	30	20,633	-61.3		310	3.1	25	20,532	-52.7		255	19.6
40	20	22,074	-58.1		87	24.5	26	22,042	-57.3		278	6.6	26	22,079	-58.4		307	3.7	29	22,025	-58.7		349	2.9	25	21,970	-53.4		269	14.2
30	20	23,902	-54.2		87	27.6	25	23,866	-54.4		265	10.3	26	23,898	-56.2		297	4.9	27	23,842	-55.3		294	3.7	23	23,829	-53.8		286	11.9
25	19	25,077	-51.3		90	29.5	24	25,036	-52.5		264	13.4	26	25,060	-55.0		297	5.6	27	25,01[illegible]	-53.4		268	8.5	[illegible]	25,001	-53.4		293	13.8
20	18	26,531	-49.2		86	31.9	24	26,487	-50.2		262	16.1	22	26,484	-53.5		249	10.1	26	26,449	-51.3		276	13.4	17	26,430	-54.6		307	18.3
15	17	28,430	-47.0		90	33.4	20	28,272	-47.3		267	20.6	20	28,347	-51.7		271	11.7	17	28,334	-49.7		275	17.0	6	28,355	-53.4			
10	15	31,152	-42.3		87	21.0	11	31,127	-43.0				7	30,924	-49.8				7	30,947	-48.4									
7	14	33,583	-39.0		79	10.5	7	33,525	-41.6																					
5	10	35,906	-34.5																											

See reference note at end of table

RAWINSONDE DATA

Average monthly values

Standard pressure surface (mb)	[illegible] FLAT, NEV. [illegible] MB						YUMA, ARIZ. 996 MB					
	Number of observations	Dynamic height	Temperature	Relative humidity	Wind Direction	Wind Speed	Number of observations	Dynamic height	Temperature	Relative humidity	Wind Direction	Wind Speed
SFC	[illegible]	1,196	7.6	52	[illegible]	1.2	30	131	17.8	42	15	1.9
1000	[illegible]	[illegible]					30	93				
950	29	[illegible]					30	536	23.4	29	[illegible]	4.1
[illegible]	29	[illegible]					30	1,007	20.5	27	302	3.1
850	29	1,512	15.1	33	49	1.7	30	1,497	16.9	29	249	1.2
800	29	2,023	12.2	31	[illegible]	1.9	30	2,009	13.0	31	211	3.9
750	29	2,554	8.6	32	176	2.5	30	2,546	9.4	30	204	6.8
700	[illegible]	[illegible]	[illegible]	35	197	2.9	30	3,116	[illegible]	27	217	7.0
650	29	3,722	[illegible]	[illegible]	217	2.9	30	3,718	2.9	21	227	8.7
600	29	[illegible]	- 2.4		233	3.1	30	4,363	- .3	17	224	12.6
550	29	[illegible]	- 6.7		236	2.3	30	5,045	- 4.7	15	228	14.0
500	[illegible]	[illegible]	-11.8		252	5.8	30	5,794	-10.1	15	226	16.3
450	[illegible]	[illegible]	-17.7		264	4.5	30	6,589	-16.5	16	225	17.5
400	29	[illegible]	-24.5		261	7.0	30	7,470	-23.4	17	229	20.6
350	[illegible]	8,418	-31.6		246	6.4	30	8,433	-30.3	20	229	23.7
[illegible]	[illegible]	[illegible]	[illegible]		250	11.5	30	9,513	-37.3	17	227	29.0
250	[illegible]	10,720	-47.2		250	16.3	30	10,751	-44.9		233	35.2
[illegible]	[illegible]	12,170	-54.8		247	21.8	30	12,215	-53.0		234	[illegible]
175	28	13,014	-57.5		254	25.3	30	13,067	-57.5		236	37.9
150	28	13,980	-61.1		255	26.0	29	14,029	-62.1		241	34.0
125	27	15,102	-65.5		259	[illegible]	29	15,142	-66.7		245	25.3
100	27	16,450	-67.7		[illegible]	17.3	27	16,476	-69.4		250	15.2
80	26	17,795	-66.2		264	11.5	26	17,805	-69.4		247	8.4
70	[illegible]	18,614	[illegible]		278	7.2	25	18,617	-67.1		259	5.4
60	23	19,556	[illegible]		[illegible]	3.3	25	19,545	-64.0		[illegible]	2.7
50	[illegible]	20,690	-60.2		302	2.7	23	20,670	-61.1		289	2.5
40	[illegible]	22,088	-57.7		305	4.3	22	22,066	-58.9		349	1.4
30	18	[illegible]	-55.7		[illegible]	7.6	21	23,886	-55.5		321	1.9
25	[illegible]	25,090	-53.2		[illegible]	[illegible]	20	25,054	-53.1		267	3.5
20	16	[illegible]	-50.4		[illegible]	7.2	20	26,498	-51.4		269	6.2
15	[illegible]	[illegible]	[illegible]		257	15.3	20	28,376	[illegible]		262	[illegible]
10							17	31,049	-47.4		270	13.6
7							10	33,410	-46.5			

Note: All observations scheduled at 1200, G. C. T. Pressures shown under station names are the average monthly station pressures for the month of record, corrected to the height of the floors of the instrument shelters used for rawinsonde purposes. "Number of observations" refers to those of dynamic height only. Although the number of temperature observations at any given pressure surface is usually the same as for height, it is possible for temperature to be missing for one or more pressure surfaces of some observations. Relative humidity averages are limited to those observations with temperatures warmer than -40°C. Observations of wind speed and direction are sometimes lost due to limiting angles, i. e., elevation angles less than 6° above the horizon, or any obstruction above the horizon.

The temperature and wind values are based on 15 or more observations at the surface or 5 observations at a standard pressure level for temperature and 10 for wind. Relative humidity data are not published for standard pressure surfaces for which less than 16 observations are available.

Relative humidity data are computed and expressed on the basis of vapor pressure over water. Unless otherwise indicated, they are obtained from lithium chloride hygristors.

These average values for standard pressure surfaces were obtained by rawinsondes; dynamic height (geopotential) in units of .98 dynamic meter, temperature in degrees Celsius, relative humidity in percent, and resultant winds in degrees and knots.

SOLAR RADIATION DATA

Solar radiation intensities, tabulated in langleys per minute on a surface normal to the direction of the sun.

OCTOBER 1962

Date	Sun's zenith distance								
	A. M.				*	P. M.			
	78.7°	75.7°	70.7°	60.0°		60.0°	70.7°	75.7°	78.7°
ALBUQUERQUE, N. MEX.									
	Air mass								
	4.19	3.35	2.51	1.67	*	1.67	2.51	3.35	4.19
Oct.									
1	0.87	0.95	1.07	1.22	(1.33)	1.21	1.03	0.89	0.78
2	----	----	----	----	(1.03)	----	----	----	(.49)
3	.62	.75	----	1.00	1.29	1.09	.92	.81	.71
4	.86	.93	1.03	1.11	----	----	----	----	----
5	----	----	----	----	----	1.15	----	----	----
6	.75	.88	1.01	1.20	1.37	1.23	1.10	.97	.89
7	.90	1.02	1.13	1.28	1.38	1.25	1.07	.94	.81
8	.87	1.00	1.21	1.33	1.21	1.05	.93	.93	.83
9	.96	1.07	1.16	1.31	1.37	1.27	1.13	1.02	.81
10	.93	1.05	1.12	1.29	1.38	1.27	1.13	1.07	.97
11	.99	1.11	1.18	1.35	1.38	1.31	1.16	1.05	.93
12	.97	1.09	1.15	1.33	1.38	1.25	1.15	1.05	.89
13	1.00	1.13	1.21	1.35	1.41	1.31	1.17	1.07	.96
14	1.03	1.14	1.21	1.32	1.39	(1.25)	(1.10)	----	----
19	----	----	----	----	1.50	----	----	----	----
21	1.09	1.23	1.37	1.49	1.61	1.46	1.29	1.18	1.04
22	1.10	1.21	1.24	1.48	1.53	1.42	1.28	1.20	1.05
23	1.01	1.16	1.25	1.39	1.52	1.41	1.25	1.11	.96
27	----	----	----	----	----	1.31	1.15	1.03	.92
28	.98	1.10	1.25	1.40	1.49	1.37	1.17	1.01	.88
29	1.02	1.16	1.29	1.43	1.50	1.42	1.30	1.15	1.04
30	1.07	1.17	1.28	1.37	1.46	1.34	1.20	1.05	.95
31	1.03	1.15	1.28	1.41	1.52	(1.27)	(1.23)	1.11	.98
Averages	0.95	1.07	1.19	1.32	1.43	1.28	1.14	1.04	0.91
TUCSON, ARIZ.									
	Air mass								
	4.56	3.65	2.74	1.83	*	1.83	2.74	3.65	4.56
Oct.									
1	0.80	0.90	1.00	1.17	----	----	----	----	0.84
2	.76	.86	----	1.01	----	----	----	0.87	.77
3	.83	.93	1.05	----	----	----	0.93	.88	.71
4	.84	.92	1.03	1.24	----	----	----	----	----
5	----	----	----	----	----	----	----	.81	.95
6	.83	.93	1.07	----	----	----	----	.92	.80
7	.90	.98	1.10	1.26	----	----	1.15	1.01	.91
8	.91	1.03	1.12	----	----	----	----	.96	.88
9	.95	1.03	----	----	----	----	1.07	----	.86
10	.86	.95	----	----	----	----	----	.85	----
11	----	----	----	----	----	----	----	.98	.86
12	.92	1.04	----	1.31	----	----	----	1.05	.97
13	1.00	1.07	1.20	1.33	----	----	----	----	----
14	.95	1.04	1.14	1.29	----	----	----	----	----
15	.96	1.05	1.14	----	----	----	----	1.02	.93
20	----	----	----	----	----	----	----	.96	.83
21	.94	1.03	----	----	----	----	----	.99	.86
22	.97	----	----	----	----	----	----	----	----
24	.93	1.03	----	----	----	----	----	----	----
25	.82	.94	1.03	----	----	----	----	.98	.86
26	----	----	----	----	----	----	----	.79	.66
27	.71	.82	----	----	----	----	----	.84	.76
30	----	----	----	----	----	----	----	.97	.85
Averages	0.88	0.97	1.09	1.23	----	----	1.05	0.93	0.84

( ) Clouds present
* Values corresponding to true solar noon.

Date	Sun's zenith distance								
	A. M.				*	P. M.			
	78.7°	75.7°	70.7°	60.0°		60.0°	70.7°	75.7°	78.7°
BLUE HILL OBS., MASS.									
	Air mass								
	4.89	3.92	2.94	1.96	*	1.96	2.94	3.92	4.89
Oct.									
1	0.90	0.97	1.11	1.26	----	----	----	----	----
2	.78	.89	1.01	1.18	1.32	1.19	1.02	0.88	0.76
3	.86	.96	1.09	1.28	1.39	1.26	1.06	.89	.77
8	.89	.96	1.10	1.25	1.39	1.27	1.06	.89	.79
11	.95	1.06	1.15	1.33	----	----	----	----	----
14	----	----	----	----	1.42	1.32	1.12	1.01	.86
17	----	----	----	----	----	1.36	1.24	1.12	1.01
18	1.05	1.13	1.24	1.37	1.42	1.27	1.05	.91	.78
19	.95	1.04	1.15	1.23	1.40	1.29	1.05	.91	.81
20	.95	1.05	1.18	1.37	1.42	1.34	1.13	.96	.86
22	1.11	1.16	1.27	1.40	1.45	----	----	----	----
24	----	----	----	----	----	1.41	1.23	1.11	1.00
27	.90	1.04	1.11	1.37	1.45	1.37	1.15	.94	.83
29	----	----	----	----	----	1.45	1.32	1.18	1.09
Averages	0.93	1.03	1.14	1.30	1.41	1.32	1.13	0.98	0.87
MAUNA LOA OBS., HAWAII									
	Air mass								
	3.36	2.69	2.01	1.34	*	1.34	2.01	2.69	3.36
Oct.									
1	----	1.31	1.38	1.48	1.58	----	1.31	1.22	1.13
2	1.23	1.30	1.39	1.49	1.61	1.49	1.37	1.29	1.21
3	1.24	1.33	1.41	1.50	1.59	1.43	1.35	1.25	1.17
4	1.25	1.32	----	----	----	----	----	1.25	1.16
6	1.29	1.36	----	1.54	1.63	1.51	1.41	1.32	1.25
7	1.33	1.40	1.48	1.58	1.64	1.50	1.40	1.28	1.22
8	1.26	1.35	1.43	1.53	1.62	1.50	1.38	1.27	1.19
10	1.27	1.35	1.43	1.53	1.65	1.52	1.43	1.33	1.24
11	1.30	1.38	1.46	1.57	1.66	1.51	1.40	1.31	1.22
12	1.25	1.33	1.42	1.55	1.62	----	1.37	1.27	1.17
13	1.25	1.34	1.42	1.53	----	----	----	----	----
14	1.27	1.34	1.42	1.53	----	----	----	----	----
15	1.26	1.33	1.41	1.53	----	----	----	----	----
16	1.22	1.30	1.40	1.52	1.61	----	----	----	----
18	1.18	1.26	1.36	1.48	----	----	----	----	----
20	1.22	1.29	1.38	----	----	----	----	----	----
21	1.24	1.32	1.40	1.50	----	----	----	----	----
22	1.24	1.32	1.41	1.52	----	----	----	----	----
25	----	----	----	----	1.64	----	----	----	----
26	1.30	1.37	1.46	1.56	----	----	----	----	----
27	1.29	1.38	1.47	1.57	1.61	1.50	1.40	1.31	1.23
28	1.23	1.31	1.39	1.50	1.60	----	----	----	----
29	1.25	1.32	1.41	1.52	1.61	1.49	1.42	1.33	1.25
30	1.27	1.35	1.43	1.53	1.61	1.47	----	----	----
31	1.27	1.34	1.43	1.54	1.61	1.46	1.35	1.27	1.18
Averages	1.26	1.33	1.42	1.53	1.62	1.49	1.38	1.28	1.20
GUAM, M. I.									
	Air mass								
	4.92	3.93	2.95	1.97	*	1.97	2.95	3.93	4.92
			No observations due to cloudiness						

Langley is the unit used to denote one gram calorie per square centimeter. An explanation of the formula used in computing the air mass values for each station listed above appears in the February 1957 issue, Vol. 8, No. 2, page 63, of this publication.

SOLAR RADIATION DATA

Daily totals and weekly averages of solar radiation (direct and diffuse) received on a horizontal surface, tabulated in langleys.

1962	Albuquerque, N.Mex.	Ames, Iowa	Annette, Alaska	Apalachicola, Fla.	Astoria, Oreg.	Atlanta, Ga.	Barrow, Alaska	Bethel, Alaska	Bismarck, N. Dak.	Blue Hill Obs., Mass.	Boise, Idaho	Boston, Mass.	Brownsville, Tex.	Canton Island, Pacific Area	Caribou, Maine	Charleston, S. C.	Cleveland, Ohio	Columbia, Mo.	Corvallis, Oreg.	Davis, Calif.	Dodge City, Kans.	East Lansing, Mich.	El Paso, Tex.	Ely, Nev.	Fairbanks, Alaska	Flaming Gorge, Utah	Fort Worth, Tex.	Fresno, Calif.	Gainesville, Fla.	Glasgow, Mont.	Grand Junction, Colo.	Great Falls, Mont.	Greensboro, N. C.	Griffin, Ga.	Cape Hatteras, N.C.	Indianapolis, Ind.	Inyokern China Lake Calif.	Lake Charles, La.
Oct. 1----	592	37	186	374	405	331	179	51	388	449	456	418	55	661	125	299	358	165	428	486	399	254	536	533	---	516	531	516	405	405	591	387	475	400	343	240	621	375
Oct. 2----	458	162	77	488	85	111	95	---	408	449	422	431	294	650	277	299	212	233	166	489	61	200	560	522	217	503	539	487	448	411	567	389	188	189	281	72	605	486
Oct. 3----	567	77	154	502	288	202	122	---	414	447	332	414	343	665	379	341	60	171	301	466	312	123	546	504	118	484	511	500	490	397	565	321	104	194	170	492	602	441
Oct. 4----	483	220	37	400	376	437	91	133	405	264	394	248	269	597	237	133	217	452	338	479	462	235	269	406	88	479	493	---	312	391	507	292	49	458	322	333	601	459
Oct. 5----	541	343	61	543	173	559	81	70	357	46	431	49	513	667	344	---	244	284	324	478	65	237	(567)	142	120	216	336	---	423	225	281	182	423	563	352	---	595	462
Oct. 6----	586	54	98	524	284	512	68	194	131	19	327	16	513	632	118	486	311	317	348	441	473	285	566	497	207	241	415	499	570	78	520	264	428	523	439	119	584	412
Oct. 7----	589	132	74	525	39	441	56	203	107	38	329	42	492	663	56	481	227	431	46	450	469	312	558	487	189	---	314	500	536	360	437	358	419	508	452	300	575	438
Average------	545	147	98	479	236	370	99	130	316	244	384	231	354	648	219	340	232	293	279	470	320	235	(515)	442	157	407	448	500	455	324	496	313	298	405	337	259	598	439
Oct. 8----	580	243	154	353	111	415	60	97	198	414	360	397	518	675	179	451	137	445	115	450	461	57	553	466	183	---	22	484	395	269	512	372	472	399	479	148	572	372
Oct. 9----	593	397	124	477	279	580	66	189	148	45	90	65	545	588	361	506	98	438	198	459	415	177	541	485	176	460	355	477	477	490	512	162	483	549	458	454	571	271
Oct. 10----	588	336	95	533	124	539	68	114	268	37	80	45	468	672	106	504	321	429	121	183	439	227	532	469	48	448	419	468	566	121	505	60	476	556	479	439	577	240
Oct. 11----	580	252	234	517	125	478	---	198	261	229	111	220	526	681	125	499	325	414	121	87	429	---	448	389	47	432	465	437	431	286	502	187	471	508	479	420	556	431
Oct. 12----	574	359	147	479	21	488	65	194	317	228	74	195	502	666	55	457	101	206	---	103	383	316	535	410	---	404	352	186	473	199	446	302	463	526	477	350	540	383
Oct. 13----	579	173	73	486	---	465	46	69	286	360	66	357	467	646	155	477	328	164	---	(103)	372	411	546	402	121	183	220	483	390	220	444	272	400	517	430	188	503	367
Oct. 14----	555	103	153	448	---	394	33	100	321	375	134	367	404	670	263	429	252	331	---	455	433	309	532	130	52	319	233	493	347	183	480	56	310	431	406	315	544	128
Average------	578	266	140	470	132	480	56	137	257	241	131	235	490	657	178	475	223	347	139	(263)	419	250	527	393	105	374	295	433	440	253	486	202	439	498	458	331	552	313
Oct. 15----	506	106	41	446	290	437	34	65	162	369	315	367	468	659	335	427	151	214	---	470	446	276	521	457	69	383	424	475	336	145	288	195	355	440	---	282	552	398
Oct. 16----	---	389	82	476	316	279	47	41	298	254	387	263	454	653	201	346	226	420	---	446	410	174	397	366	68	311	367	431	447	348	94	328	378	399	---	134	535	327
Oct. 17----	227	273	223	489	318	---	52	74	329	263	377	267	364	626	294	395	325	309	---	437	271	385	406	429	34	422	183	444	328	316	323	302	376	463	258	433	261	335
Oct. 18----	---	354	90	399	---	434	46	61	255	348	343	328	310	634	222	479	294	198	---	434	332	355	232	434	32	382	346	435	380	159	401	60	446	487	74	415	223	417
Oct. 19----	283	78	60	481	135	435	41	184	(302)	374	364	342	425	659	199	469	305	86	---	416	362	342	449	446	48	382	351	403	498	209	---	310	468	506	106	372	508	417
Oct. 20----	345	289	143	469	131	408	44	67	321	376	327	344	449	533	50	487	99	59	---	321	199	21	506	439	44	396	284	409	493	159	472	224	440	476	303	100	514	355
Oct. 21----	454	339	159	401	217	123	45	96	111	136	353	116	436	677	11	436	176	390	---	384	403	325	505	429	---	398	466	422	463	218	465	184	76	145	349	377	513	303
Average------	363	261	114	451	235	353	44	84	(254)	303	352	290	415	634	187	434	225	240	---	415	346	268	431	429	49	382	346	432	421	222	340	229	363	417	218	302	444	365
Oct. 22----	(458)	244	51	463	252	467	56	75	285	339	349	341	517	627	123	300	222	378	---	373	395	31	508	435	31	404	454	---	257	251	471	59	341	521	160	341	508	432
Oct. 23----	445	354	55	485	320	447	35	29	286	117	349	101	497	544	64	458	161	397	---	316	190	203	481	419	68	396	448	371	480	265	464	271	418	---	406	251	502	415
Oct. 24----	414	92	97	500	134	476	30	103	256	295	346	292	443	540	158	480	153	135	---	100	388	268	448	418	76	396	385	272	492	292	473	257	462	532	437	233	498	403
Oct. 25----	411	349	11	492	55	465	20	162	290	290	336	284	235	664	---	470	124	390	---	74	362	176	288	422	41	393	411	172	479	297	460	286	299	524	383	255	493	414
Oct. 26----	305	268	102	499	33	463	19	95	313	32	315	42	253	684	33	474	114	362	---	80	390	180	339	417	88	395	---	71	485	282	446	214	443	505	430	444	486	397
Oct. 27----	343	317	104	491	133	441	21	66	284	347	318	343	438	671	124	466	230	362	187	101	321	256	449	403	39	379	366	234	511	240	441	260	453	512	435	387	493	390
Oct. 28----	420	324	91	458	253	427	22	155	263	317	327	309	422	673	190	441	164	81	101	218	110	219	472	388	20	356	125	334	422	212	427	237	406	502	419	97	481	351
Average------	(399)	278	73	484	169	455	29	98	282	248	334	245	401	629	115	441	167	301	---	180	308	190	426	415	52	389	365	242	447	263	454	226	403	516	381	287	494	400
Oct. 29----	426	297	51	460	221	361	43	56	245	297	316	296	214	659	97	426	163	269	148	209	380	297	474	386	47	360	261	347	354	267	419	255	152	444	351	282	469	174
Oct. 30----	412	345	30	98	91	353	32	61	301	230	307	223	489	690	249	348	22	365	55	360	368	67	465	381	62	359	430	293	161	271	413	218	375	309	266	190	440	172
Oct. 31----	404	325	16	417	238	436	34	119	147	28	267	35	484	(682)	36	144	56	383	125	351	340	66	455	373	21	319	438	342	170	248	364	230	60	497	85	246	462	422
Nov. 1----	405	145	27	411	254	400	29	41	30	156	286	139	473	(660)	40	440	95	150	278	316	320	173	314	373	62	338	244	327	467	158	406	199	417	422	389	96	456	387
Nov. 2----	400	91	140	438	227	265	72	42	61	309	299	308	457	(706)	260	119	141	80	281	180	309	144	445	375	23	345	395	199	460	128	408	209	287	327	192	47	232	358
Nov. 3----	402	197	44	180	73	235	5	36	183	28	294	34	408	(688)	90	67	84	113	226	335	231	68	447	273	23	340	247	310	223	239	---	239	105	354	80	130	440	257
Nov. 4----	347	110	139	413	49	260	11	85	(274)	217	276	231	357	---	46	381	83	120	78	233	349	88	415	364	49	333	410	304	400	53	354	213	257	339	99	51	434	400
Average------	399	216	64	345	165	330	32	63	(177)	181	292	181	412	(681)	117	275	92	212	170	283	328	129	431	361	41	342	346	303	319	195	394	223	236	385	209	149	419	310

Note.--Langley is the unit used to denote one gram calorie per square centimeter.
Values in parentheses are interpolated.

SOLAR RADIATION DATA

Daily totals and weekly averages of solar radiation (direct and diffuse) received on a horizontal surface, tabulated in langleys.

	Lander, Wyo.	Laramie, Wyo.	Las Vegas, Nev.	Lemont, Ill.	Little Rock, Ark.	Los Angeles, Calif.	Los Angeles, Calif. (Urban)	Manhattan, Kans.	Matanuska, Alaska	Mauna Loa Obs., Hawaii	Medford, Oreg.	Miami, Fla.	Midland, Tex.	Nashville, Tenn.	Newport, R. I.	North Omaha, Nebr.	Oak Ridge, Tenn.	Oklahoma City, Okla.	Phoenix, Ariz.
1962																			
Oct. 1----	470	386	536	151	426	420	452	77	---	---	(400)	378	568	122	423	40	353	459	531
Oct. 2----	456	272	521	217	374	305	422	180	217	(629)	---	476	538	187	426	86	236	181	520
Oct. 3----	406	433	517	321	404	399	370	332	---	621	---	400	528	447	426	423	182	---	512
Oct. 4----	436	419	519	111	426	(413)	285	386	217	572	372	449	432	363	223	421	340	---	518
Oct. 5----	333	293	463	291	362	370	387	216	244	614	394	439	404	331	58	361	338	119	515
Oct. 6----	219	72	506	192	288	383	395	374	144	633	305	341	521	164	48	46	149	459	519
Oct. 7----	370	320	---	57	179	332	314	397	224	---	127	542	431	237	88	166	209	468	516
Average------	384	313	510	191	351	(374)	375	280	209	(614)	(320)	432	489	265	242	220	258	337	519
Oct. 8----	361	379	496	69	254	450	454	419	230	626	164	551	453	359	390	419	325	460	507
Oct. 9----	416	405	492	248	264	352	445	410	104	612	56	506	479	399	83	427	416	357	505
Oct. 10----	356	402	487	378	---	367	401	332	191	620	187	454	402	399	84	349	397	322	494
Oct. 11----	372	377	495	312	383	435	402	367	72	626	35	443	408	319	146	327	371	428	497
Oct. 12----	395	353	448	338	151	389	422	183	204	599	---	414	447	309	289	264	383	410	494
Oct. 13----	181	236	422	344	307	419	395	231	140	475	167	434	507	208	362	284	209	409	484
Oct. 14----	371	182	468	297	162	125	136	275	47	556	123	546	521	235	270	317	253	413	469
Average------	350	334	473	284	254	363	379	317	141	588	122	478	460	318	232	341	336	400	493
Oct. 15----	290	318	448	236	279	399	311	188	107	513	315	512	493	336	352	135	322	413	400
Oct. 16----	332	178	221	347	109	387	356	377	(47)	565	337	492	484	231	192	413	335	413	441
Oct. 17----	398	340	406	380	378	404	397	110	---	438	364	485	172	307	150	109	270	97	395
Oct. 18----	369	318	118	376	388	190	104	369	43	344	330	338	90	359	367	398	376	183	326
Oct. 19----	355	164	309	321	357	277	153	291	65	486	318	495	288	377	366	97	374	113	339
Oct. 20----	364	360	445	38	106	406	406	162	77	413	235	519	492	349	277	352	333	179	449
Oct. 21----	324	295	446	358	173	440	450	366	55	585	232	508	492	42	187	359	81	---	457
Average------	348	282	342	294	256	358	311	266	(66)	478	304	478	359	286	270	266	299	233	401
Oct. 22----	360	345	443	185	393	379	389	362	63	584	206	467	469	363	362	318	366	409	450
Oct. 23----	355	347	432	242	403	314	318	322	58	576	287	150	467	385	176	357	351	320	388
Oct. 24----	312	265	391	348	298	280	276	286	110	511	299	386	328	379	345	92	367	391	425
Oct. 25----	363	344	379	292	441	242	237	252	91	452	170	499	175	353	---	357	300	314	413
Oct. 26----	354	336	407	372	383	226	234	348	72	442	205	257	329	352	72	363	380	390	402
Oct. 27----	335	325	422	324	305	294	347	338	40	585	181	465	249	---	337	341	358	281	413
Oct. 28----	333	322	408	285	151	382	386	212	59	537	197	398	424	305	308	355	308	74	420
Average------	345	326	412	293	339	302	312	303	71	527	221	374	349	356	267	312	347	311	416
Oct. 29----	316	302	404	161	---	382	410	349	117	562	240	383	431	118	309	326	161	362	397
Oct. 30----	325	314	342	314	142	395	386	352	24	560	217	123	451	146	207	346	172	384	363
Oct. 31----	288	301	391	247	378	388	381	262	46	553	148	313	408	323	56	276	333	390	402
Nov. 1----	292	143	399	260	83	252	276	253	49	553	238	455	437	258	209	94	319	218	344
Nov. 2----	305	192	356	213	116	307	291	37	37	549	251	250	420	186	299	---	77	256	406
Nov. 3----	311	304	381	132	96	144	275	114	67	542	272	425	422	138	---	77	199	258	398
Nov. 4----	299	292	381	50	333	94	133	323	83	547	155	352	428	107	---	263	120	367	344
Average------	305	264	379	197	191	281	307	241	61	552	217	329	428	182	216	231	197	319	379

	Portland, Maine	Prosser, Wash.	Rapid City, S. Dak.	Riverside, Calif.	St. Cloud, Minn.	Salt Lake City, Utah	San Antonio, Tex.	Santa Maria, Calif.	S. Ste. Marie, Mich.	Sayville, N. Y.	Seattle, Wash.	Seattle-Tacoma, Wash.	Spokane, Wash.	State College, Pa.	Sterling, Va.	Stillwater, Okla.	Swan Island, W. I.	Tampa, Fla.	Tucson, Ariz.
1962																			
Oct. 1----	318	407	65	521	417	---	501	498	435	366	359	395	351	433	467	329	454	561	532
Oct. 2----	325	318	181	492	429	514	548	392	405	374	198	225	360	387	359	175	442	534	520
Oct. 3----	412	409	418	415	207	508	531	494	126	339	324	364	268	282	163	374	228	531	517
Oct. 4----	194	415	401	311	199	449	438	480	268	108	245	318	255	20	---	447	393	429	390
Oct. 5----	43	410	82	496	88	369	209	472	---	78	295	339	328	119	324	134	501	543	521
Oct. 6----	20	333	49	477	173	435	400	433	74	66	174	235	111	287	382	456	522	644	526
Oct. 7----	37	81	387	288	51	396	377	486	157	167	60	72	174	272	395	460	501	556	530
Average------	193	339	226	429	223	445	429	465	244	214	236	278	264	257	348	339	434	528	505
Oct. 8----	285	299	281	502	183	438	377	480	117	328	116	135	254	86	364	455	491	533	527
Oct. 9----	125	97	374	485	375	469	412	478	127	58	247	220	115	97	227	386	520	350	514
Oct. 10----	76	82	365	500	357	412	467	394	113	176	116	160	138	313	404	276	498	---	496
Oct. 11----	210	88	324	502	220	377	433	329	163	183	54	64	67	345	427	407	405	458	479
Oct. 12----	163	49	337	487	359	438	445	248	363	279	67	66	124	114	399	381	416	470	499
Oct. 13----	313	252	346	472	94	311	410	336	237	298	260	287	215	401	428	422	496	495	499
Oct. 14----	372	171	322	348	183	92	426	467	70	284	150	178	89	384	---	391	513	450	481
Average------	221	148	336	471	253	362	424	390	170	229	144	159	143	249	375	388	477	459	499
Oct. 15----	345	320	336	408	177	423	487	480	255	173	251	279	262	337	291	406	341	469	479
Oct. 16----	259	357	344	475	359	332	430	463	160	193	230	295	315	312	358	393	453	407	423
Oct. 17----	307	351	358	372	350	430	351	446	218	183	127	214	271	393	330	200	436	477	319
Oct. 18----	259	206	336	228	341	425	373	450	273	323	380	58	212	345	404	244	412	317	---
Oct. 19----	338	328	300	319	332	422	321	406	314	310	166	112	149	368	403	39	351	507	---
Oct. 20----	316	285	317	438	311	422	294	436	277	317	30	108	100	332	387	134	253	505	469
Oct. 21----	53	254	251	485	261	411	504	439	132	139	183	226	140	131	141	399	203	495	465
Average------	268	300	320	389	305	409	394	446	233	234	195	185	207	317	330	259	350	454	431
Oct. 22----	337	322	76	460	205	415	487	426	159	294	112	137	203	268	403	402	230	149	454
Oct. 23----	43	318	249	438	197	411	478	192	320	92	172	161	183	208	304	331	205	462	400
Oct. 24----	257	316	237	405	209	391	340	305	280	300	232	236	232	222	410	292	185	507	439
Oct. 25----	237	272	319	325	276	398	137	281	155	159	99	120	263	136	184	199	106	483	444
Oct. 26----	54	233	313	383	220	384	281	376	204	39	95	139	53	120	360	354	252	494	404
Oct. 27----	235	267	288	432	289	363	251	407	145	283	213	262	181	330	400	302	395	480	421
Oct. 28----	217	242	289	441	276	373	153	416	163	257	219	260	158	140	353	80	323	458	428
Average------	197	282	253	412	239	391	304	343	204	203	163	188	182	203	345	280	242	433	427
Oct. 29----	314	276	281	423	207	354	318	372	91	250	232	---	219	288	381	105	396	428	404
Oct. 30----	184	152	290	433	286	347	480	339	72	105	62	52	59	28	49	---	440	110	386
Oct. 31----	26	79	253	431	213	339	469	392	80	28	58	71	50	123	50	367	285	363	405
Nov. 1----	51	51	134	354	128	333	446	234	123	242	110	(199)	70	126	304	225	360	390	370
Nov. 2----	296	37	77	208	96	349	440	373	122	139	189	201	166	170	249	72	441	217	404
Nov. 3----	37	41	273	334	188	335	441	141	211	28	114	116	28	26	24	170	383	269	405
Nov. 4----	129	81	82	125	99	328	443	324	49	133	26	38	83	107	227	331	323	368	323
Average------	148	103	199	330	174	341	434	311	107	132	113	(113)	96	124	183	212	375	306	385

Note.--Langley is the unit used to denote one gram calorie per square centimeter.
Values in parentheses are interpolated.

NET RADIATION

Net radiation in langleys per day (midnight to midnight) at Huntley Mont., during the month

OCTOBER 1962

Date.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	Avg.
Langleys. . .	186	189	173	205	21	5	170	129	167	145	76	141	82	113	-5	90	102	134	148	109	94	5	136	80	82	79	72	80	93	111	87	106

The measurement is made with a Beckman and Whitley net exchange radiometer over a plot of sod . The value represents the total incoming minus the total outgoing radiation of all wave lengths.

These data are of an experimental nature and are published as received from the Huntley Exp. Station. The instrument with which they were measured has not been checked by the Weather Bureau.

TOTAL OZONE DATA

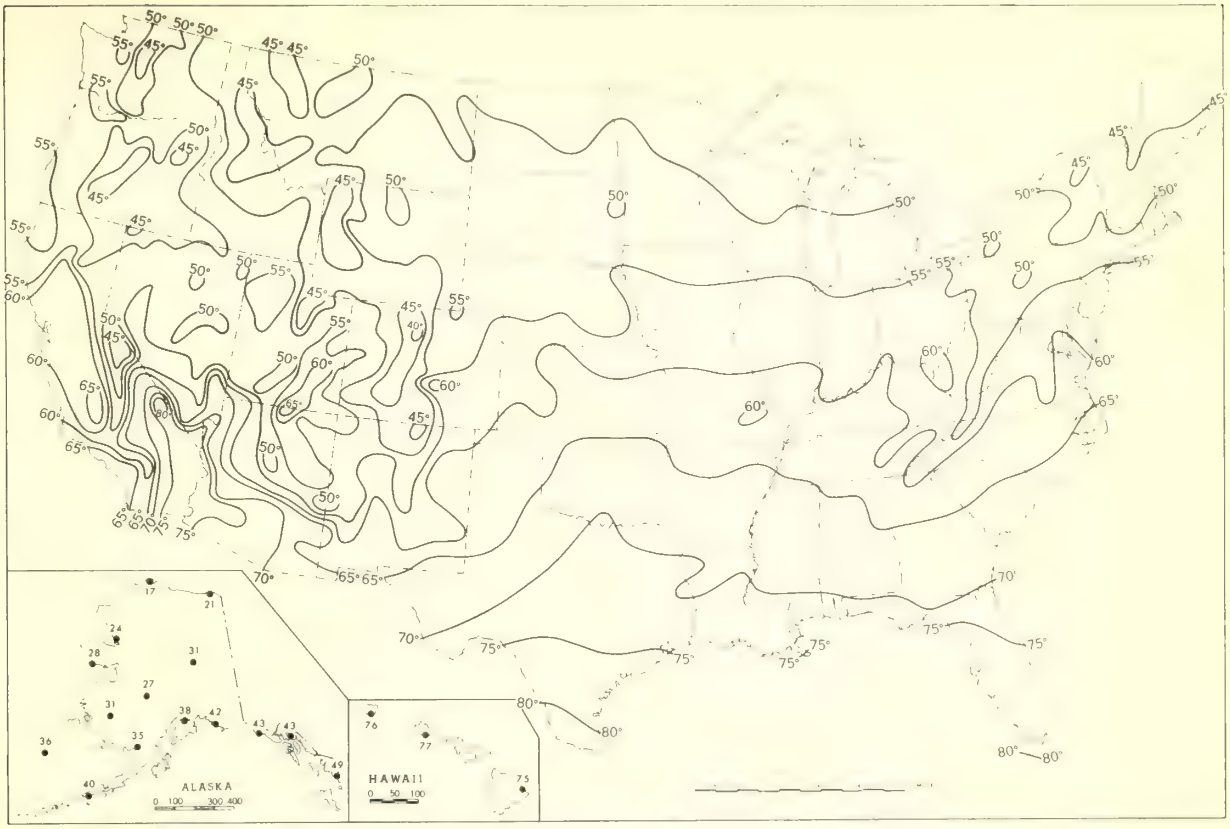
The total amount of ozone is expressed in 10^{-3} cm. at STP. These data are provisional values applicable to local noon, and are obtained from measurements with a Dobson ozone spectrophotometer using the sun or zenith sky as a light source (see explanation below).

Station	Day of month																														
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31
Bismarck, N. Dak.	266	329	316	317	315	---	---	---	---	378	---	---	---	---	---	---	---	412	---	367	---	394	498	---	375	399	477	521	---	455	---
Caribou, Maine	---	300	291	326	---	---	---	372	373	---	---	---	---	---	430	394	364	434	464	---	---	---	---	---	248	---	---	---	---	571	---
Green Bay, Wis.	257	---	---	---	---	---	---	---	338	---	369	356	---	---	333	352	370	365	353	422	439	---	422	565	568	534	426	502	---	534	515
Mauna Loa, Hawaii	263	257	257	267	268	267	266	263	274	270	271	276	273	264	270	266	---	278	268	275	276	269	263	---	259	258	253	252	254	258	259
Midland, Texas	264	292	284	290	346	306	316	336	295	308	308	297	298	337	311	342	---	---	---	338	377	357	380	---	---	385	---	403	420	410	409
Nashville, Tenn.	---	---	319	330	304	---	301	324	328	324	337	335	404	364	344	---	363	357	405	383	---	401	412	435	473	446	508	433	---	---	458
Sterling, Va.	287	313	---	---	320	---	---	320	391	370	349	378	---	---	---	363	472	387	396	---	---	461	455	520	---	568	---	---	452	---	---

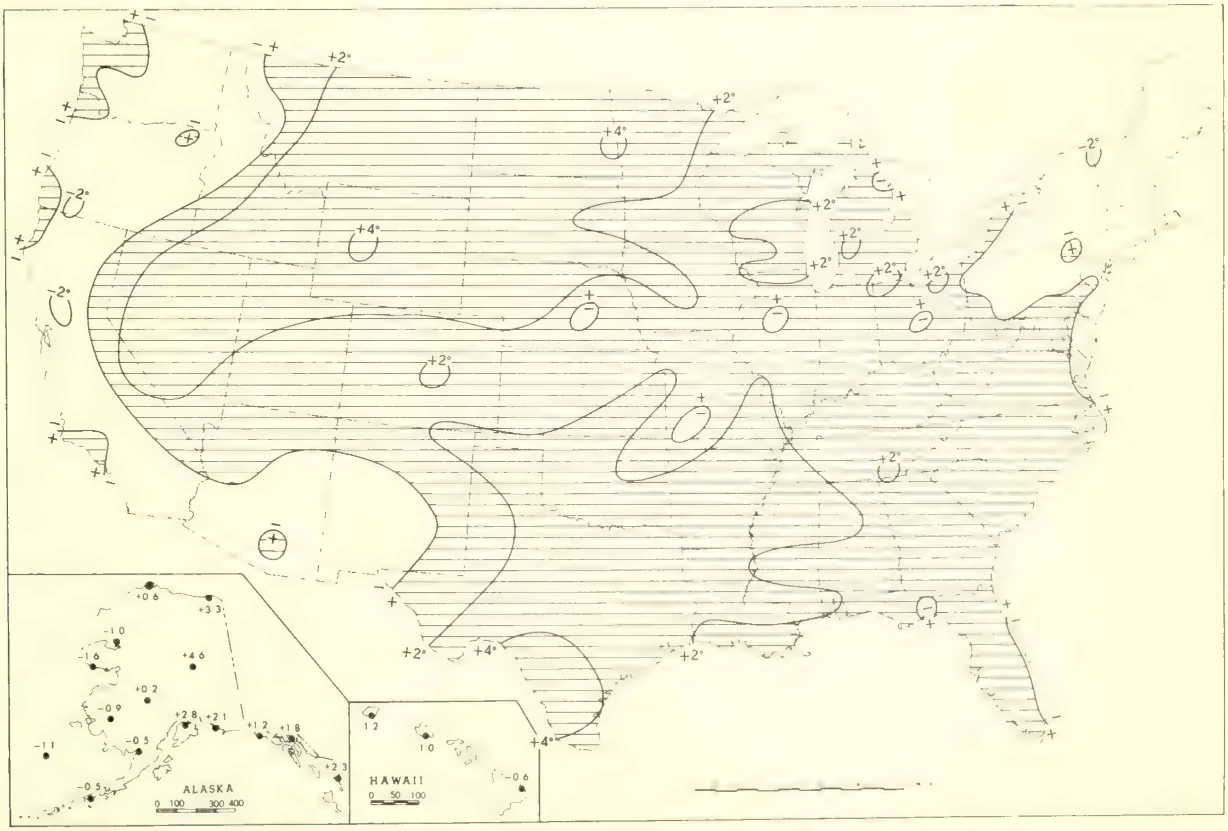
The spectrophotometer measures the total amount of ozone in the atmosphere, i.e., the amount contained in a vertical column of air extending from the ground to the top of the atmosphere in the vicinity of the station. The amount of ozone in this column is expressed in terms of thickness of a layer it would occupy at standard temperature and pressure.

The standard method of measurement is that on direct sun using A(3055Å and 3254Å) and D(3176Å and 3398Å) wavelength pairs. Observations made on the clear zenith sky are slightly less accurate, and are marked with a dagger (†). Observations made on zenith cloud are least reliable, and are marked with an asterisk (*). A detailed description of the spectrophotometer and observational procedures may be found in the "Observers' Handbook For the Ozone Spectrophotometer", Annals of the International Geophysical Year, Volume V, Pergaman Press, 1957.

Chart I. A. Average Temperature (°F.) at Surface, October 1962.



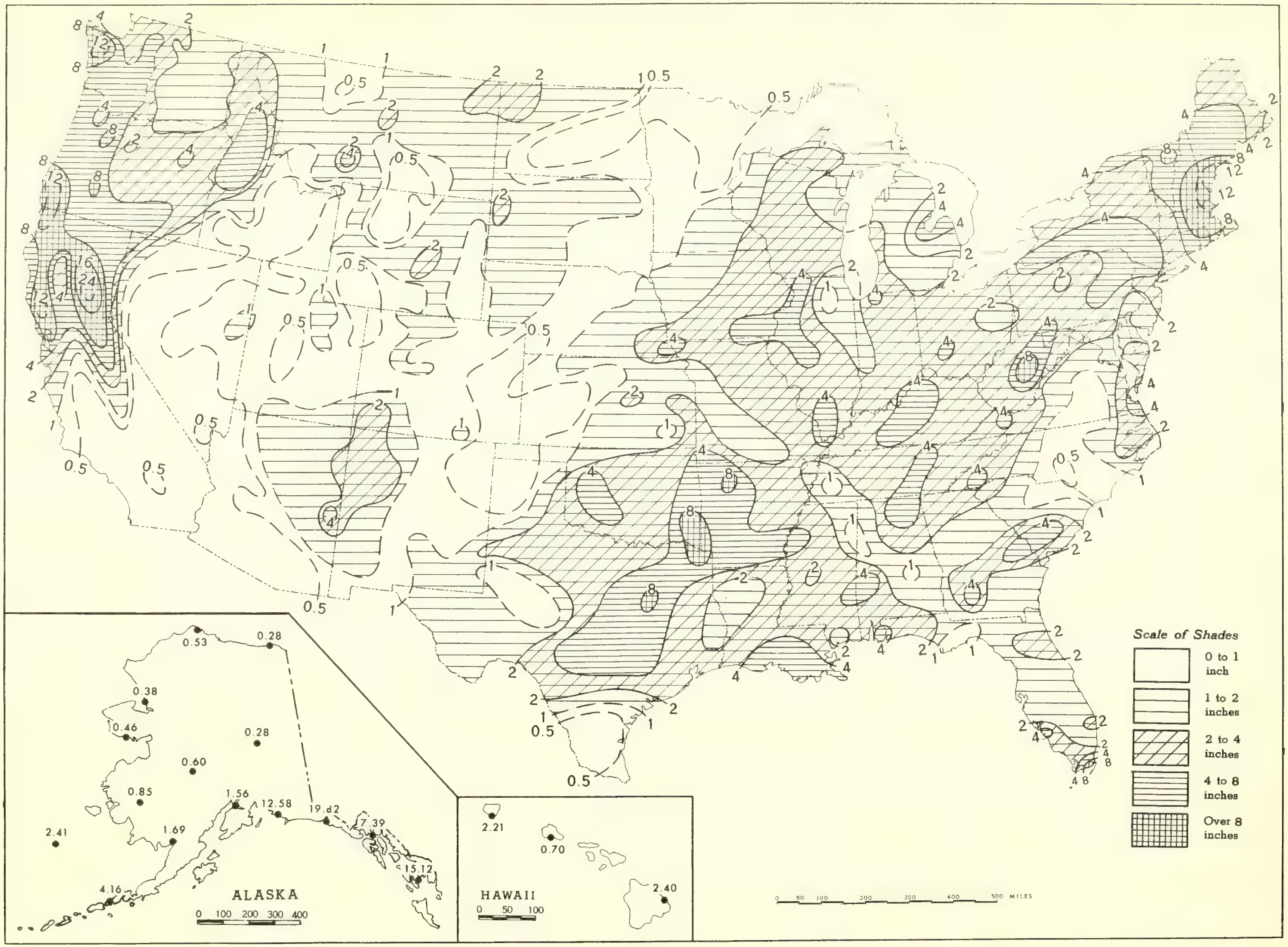
B. Departure of Average Temperature from Normal (°F.), October 1962.



A. Based on reports from over 870 Weather Bureau and cooperative stations. The monthly average is half the sum of the monthly average maximum and monthly average minimum, which are the average of the daily maxima and daily minima, respectively.

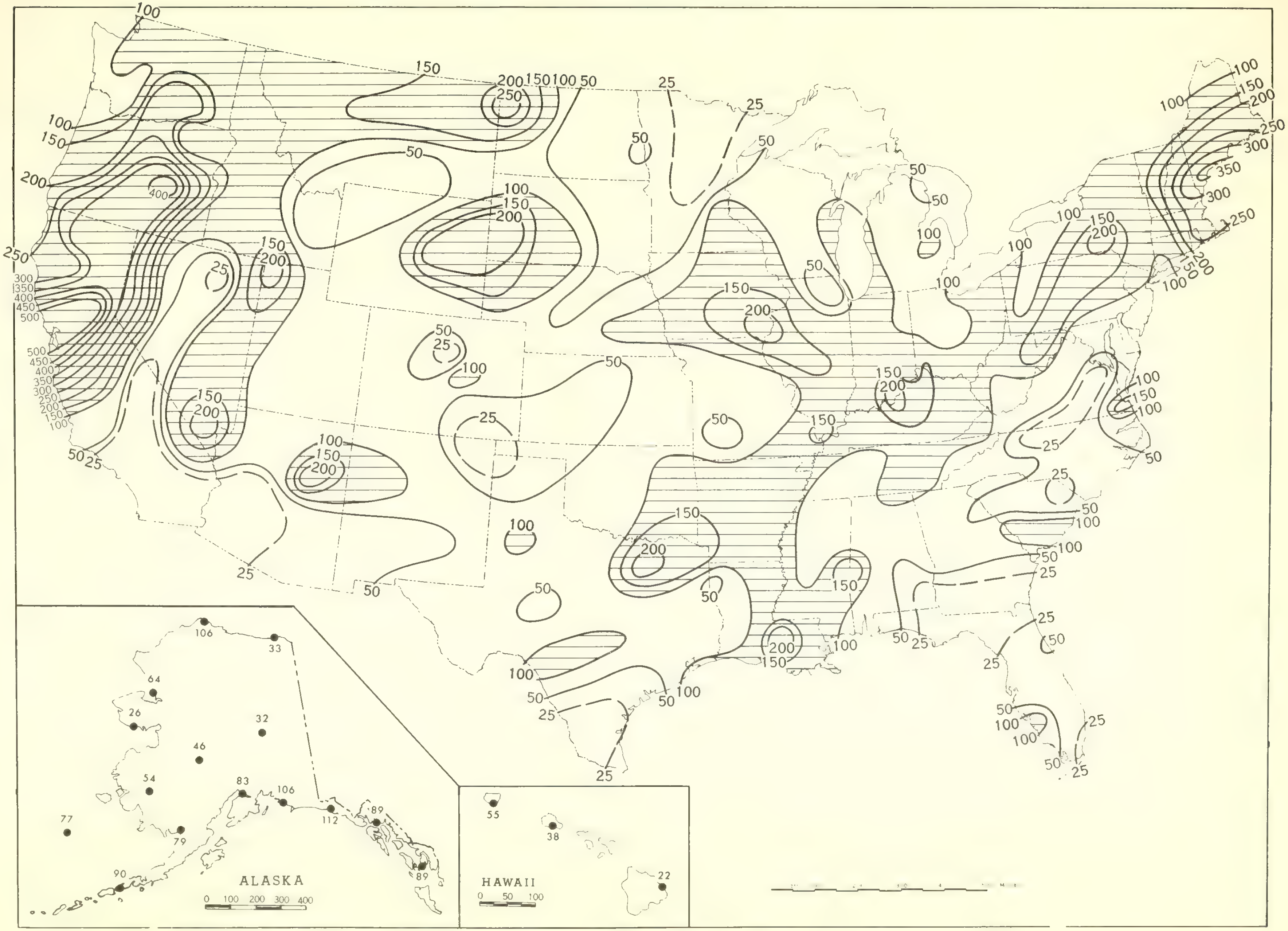
B. Departures from normal are based on the 30-yr. normals (1931-60) for first-order Weather Bureau stations.

Chart II. Total Precipitation (Inches), October 1962.



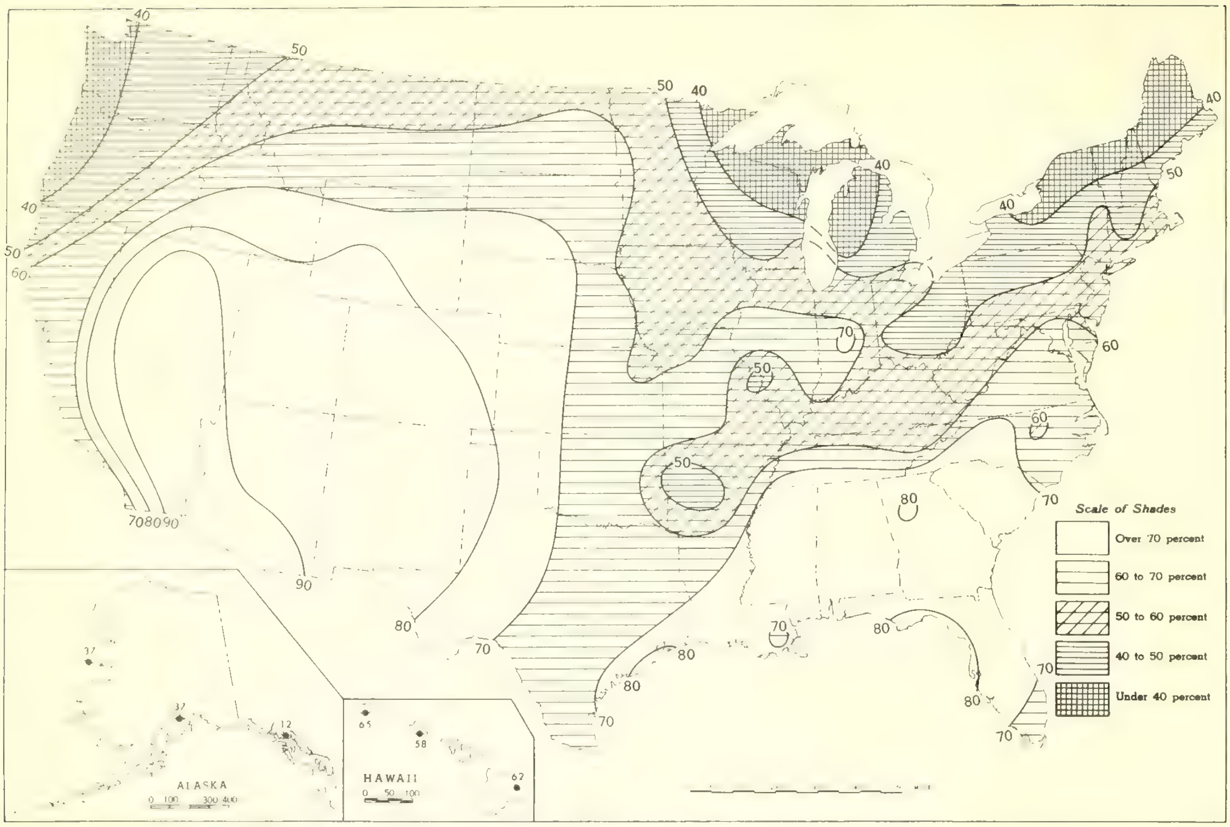
Based on daily precipitation records at about 870 Weather Bureau and cooperative stations.

Chart III. Percentage of Normal Precipitation, October 1962.

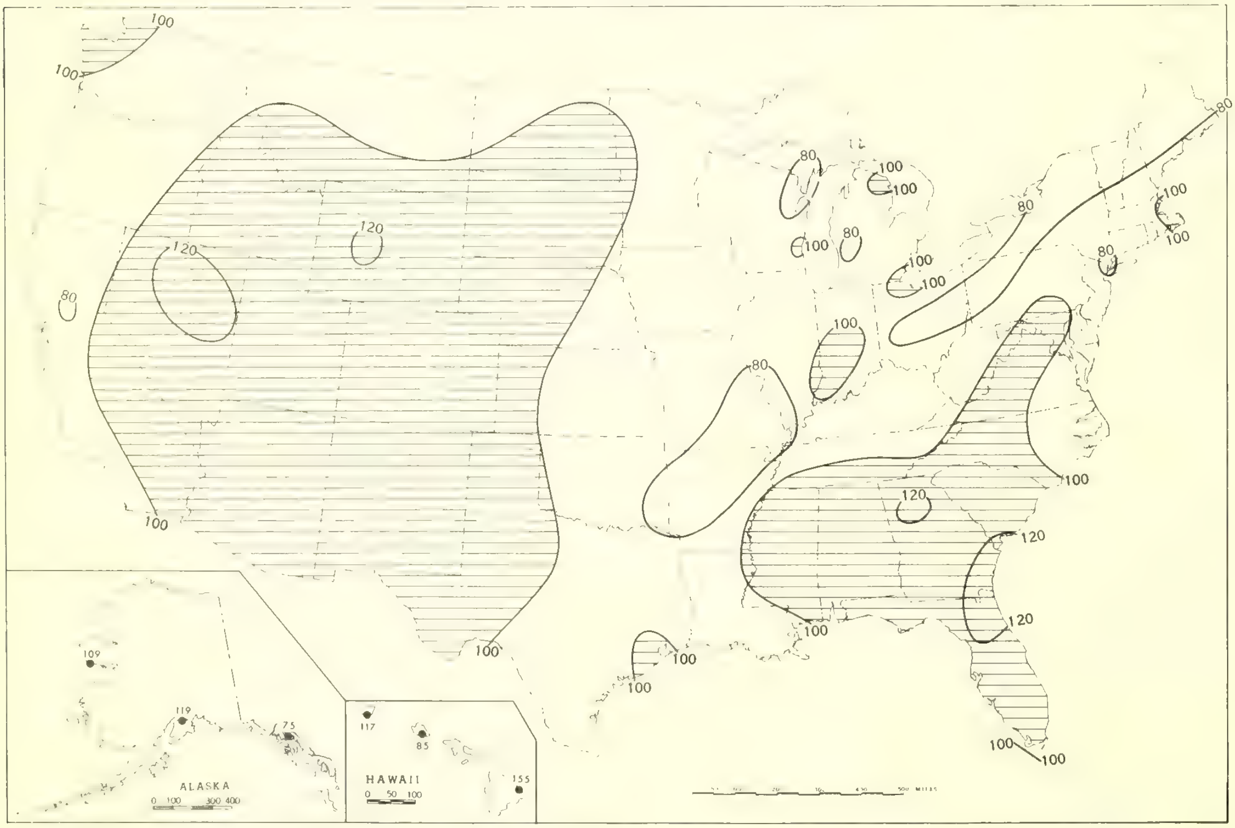


Normal monthly precipitation amounts are computed from 30-yr. normals (1931-60) for first-order Weather Bureau stations.

Chart VI. A. Percentage of Possible Sunshine, October 1962.

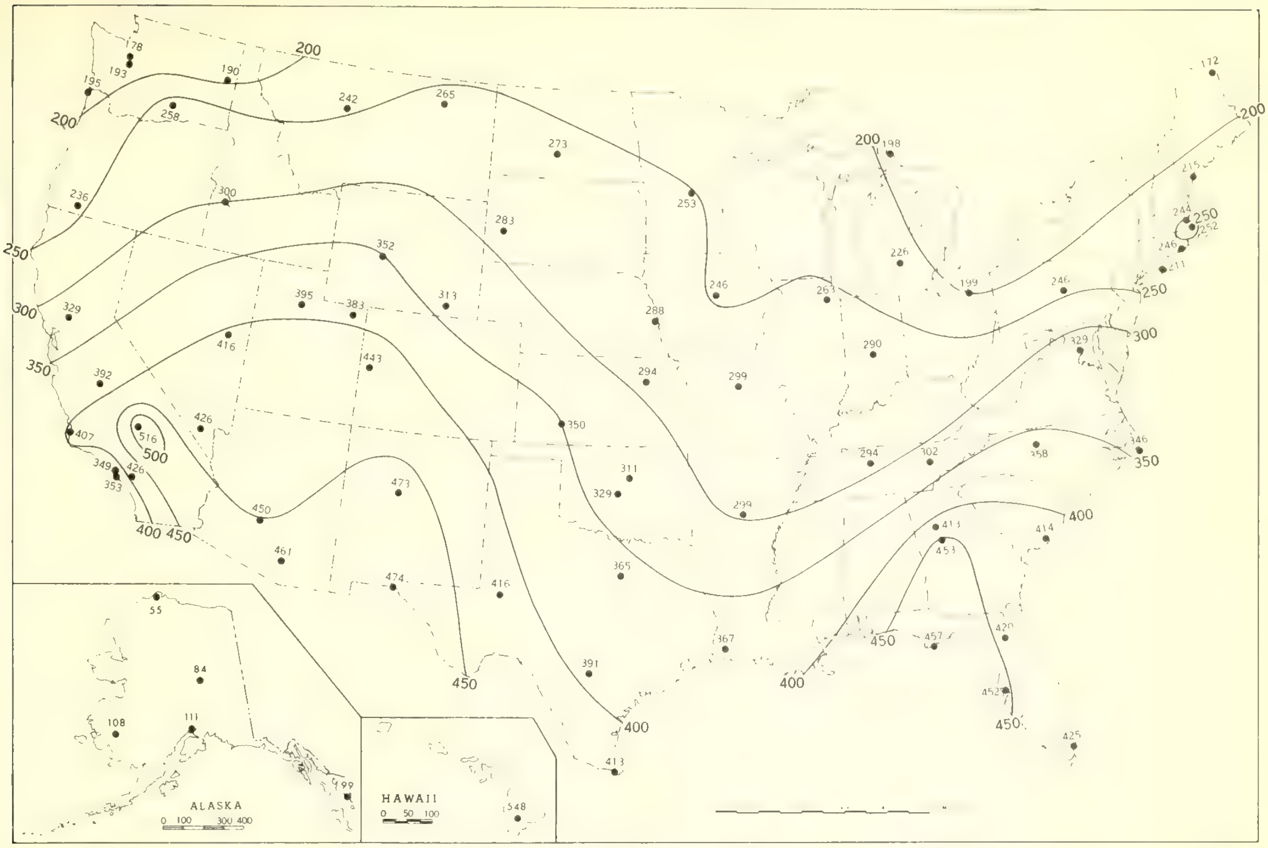


B. Percentage of Mean Monthly Sunshine, October 1962.

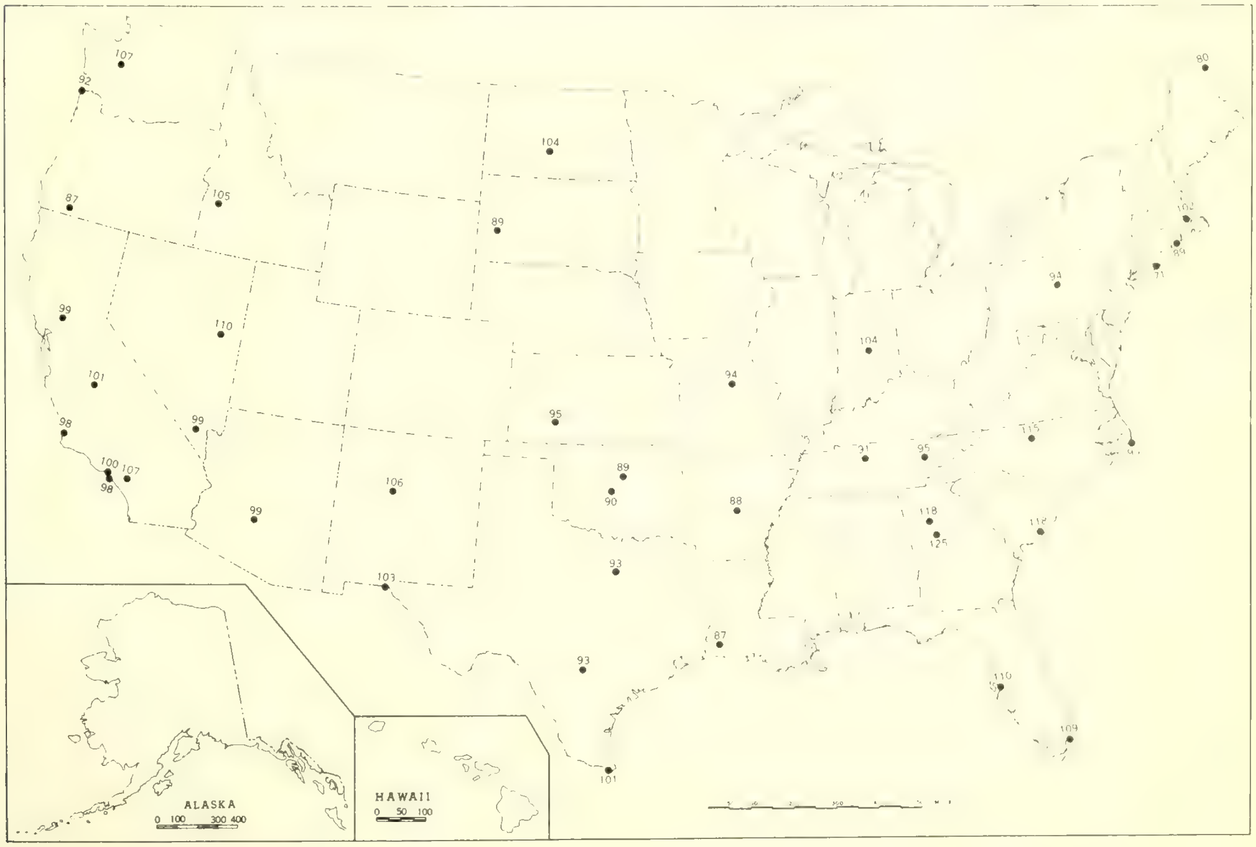


A. Computed from total number of hours of observed sunshine in relation to total number of possible hours of sunshine during month. B. Means are computed for stations having at least 10 years of record.

Chart VII. A. Average Daily Values of Solar Radiation, Langleys, October 1962.



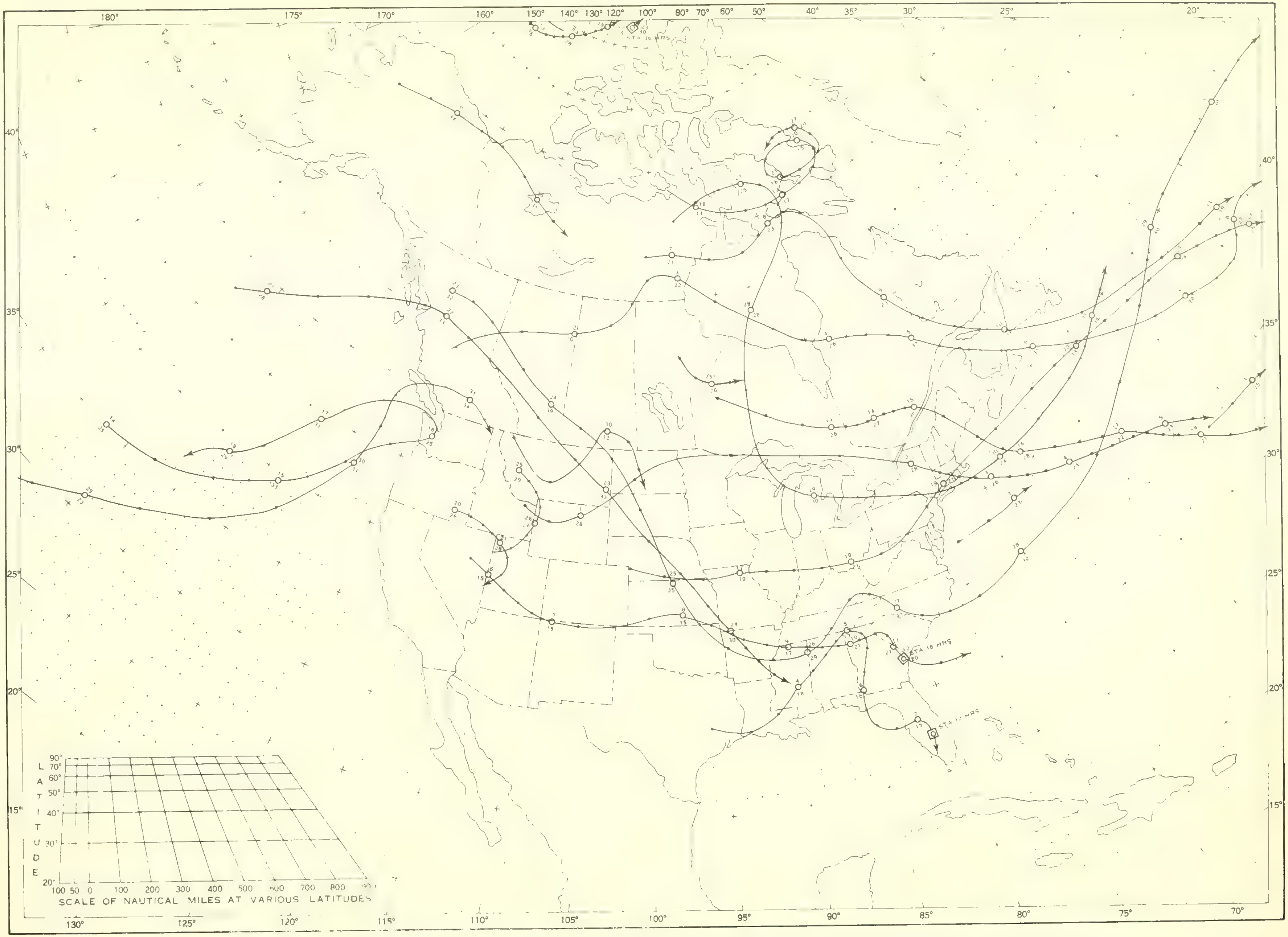
B. Percentage of Mean Daily Solar Radiation, October 1962.



A. Mean daily solar radiation, direct + diffuse, received on a horizontal surface in langleys (1 langley = 1 gm. cal. cm. $^{-2}$) and recorded in International Pyrheliometer Scale of 1956.

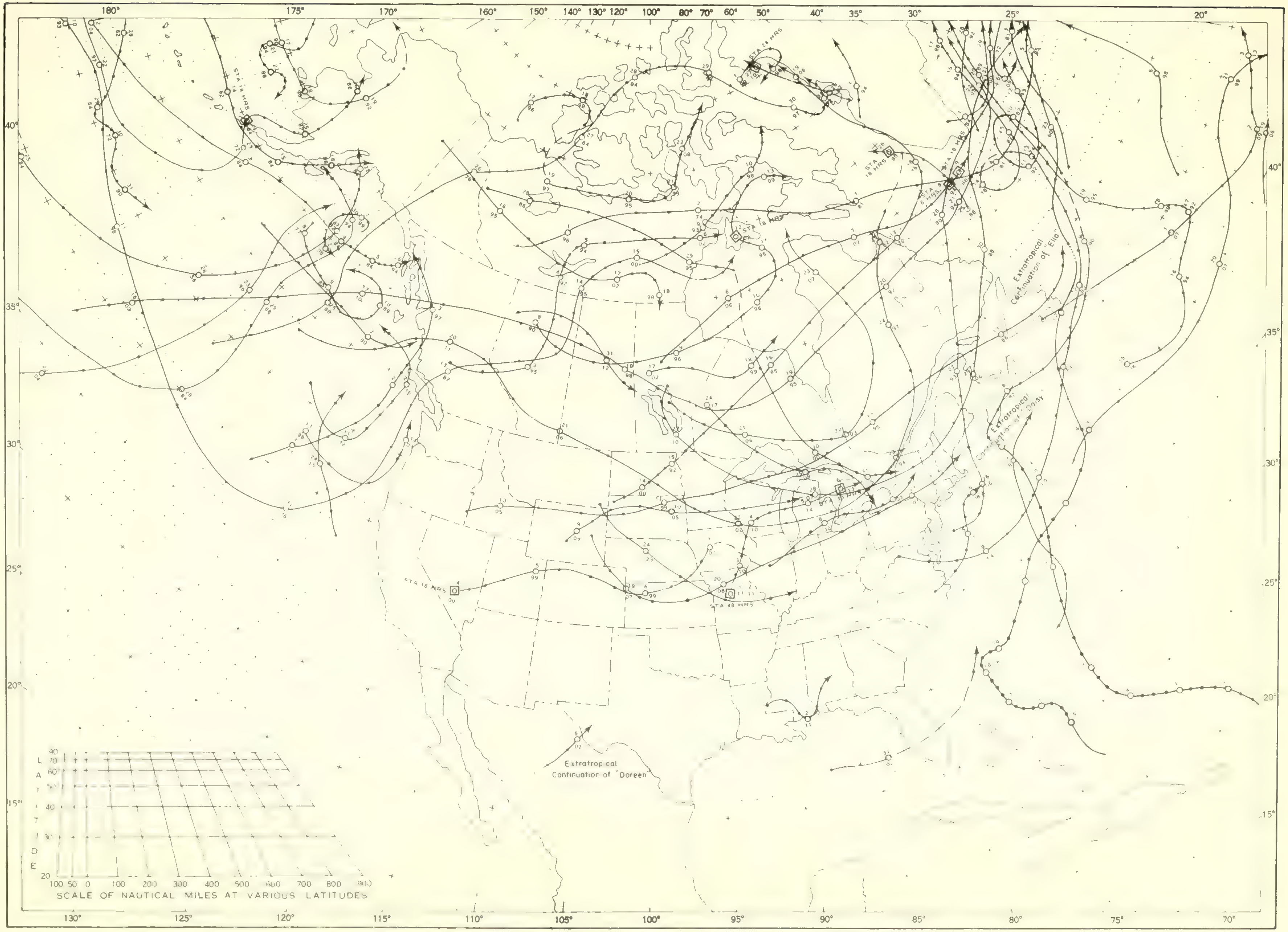
B. Percentage of the mean based on the period 1953-57, and corrected to the International Pyrheliometer Scale of 1956.

Chart VIII. Tracks of Centers of Anticyclones at Sea Level, October 1962.



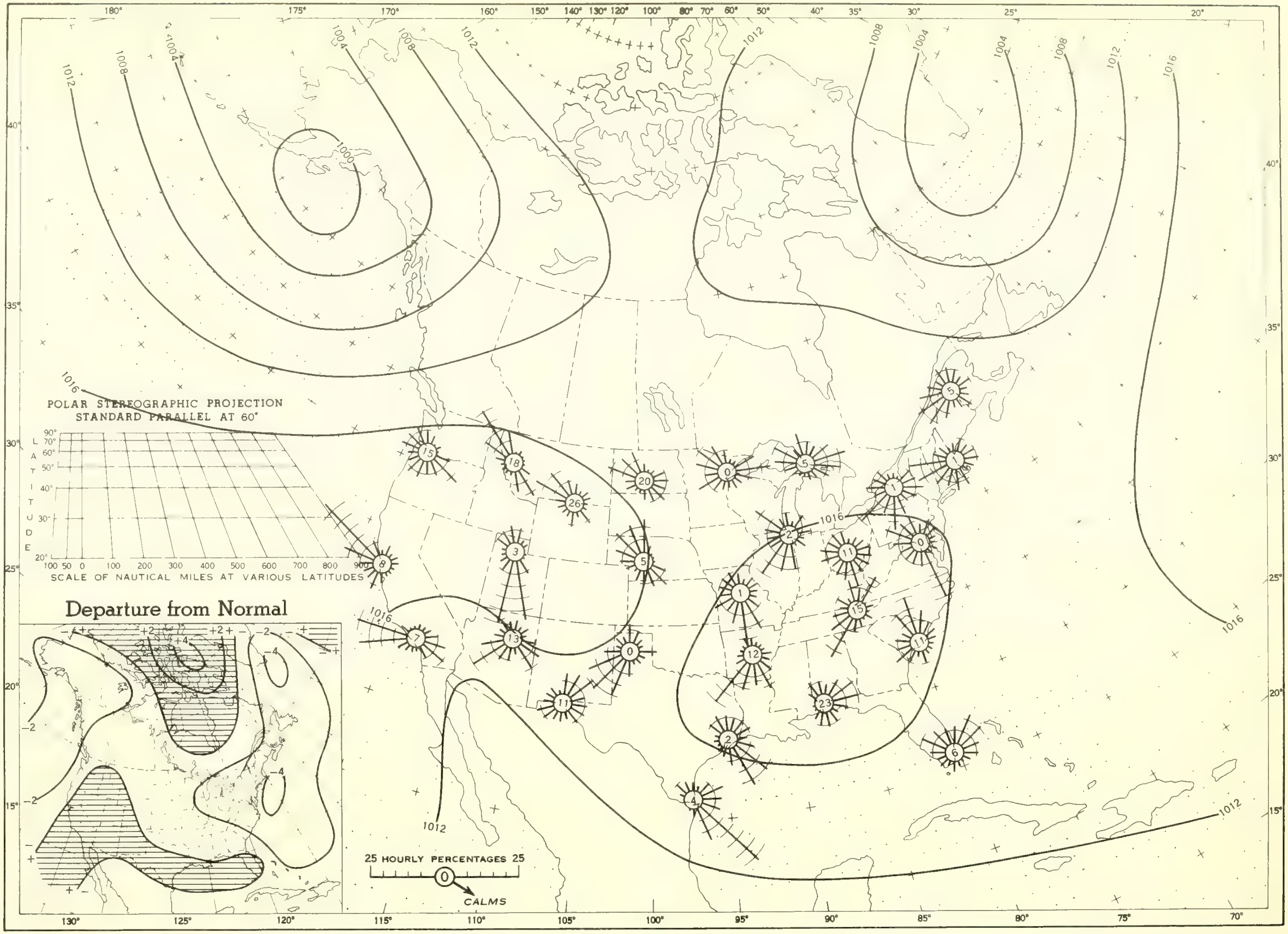
Circle indicates position of center at 7:00 a. m. E. S. T. Figure above circle indicates date, figure below, pressure to nearest millibar. Dots indicate intervening 6-hourly positions. Squares indicate position of stationary center for period shown. Dashed line in track indicates reformation at new position. Only those centers which could be identified for 24 hours or more are included.

Chart IX. Tracks of Centers of Cyclones at Sea Level, October 1962.



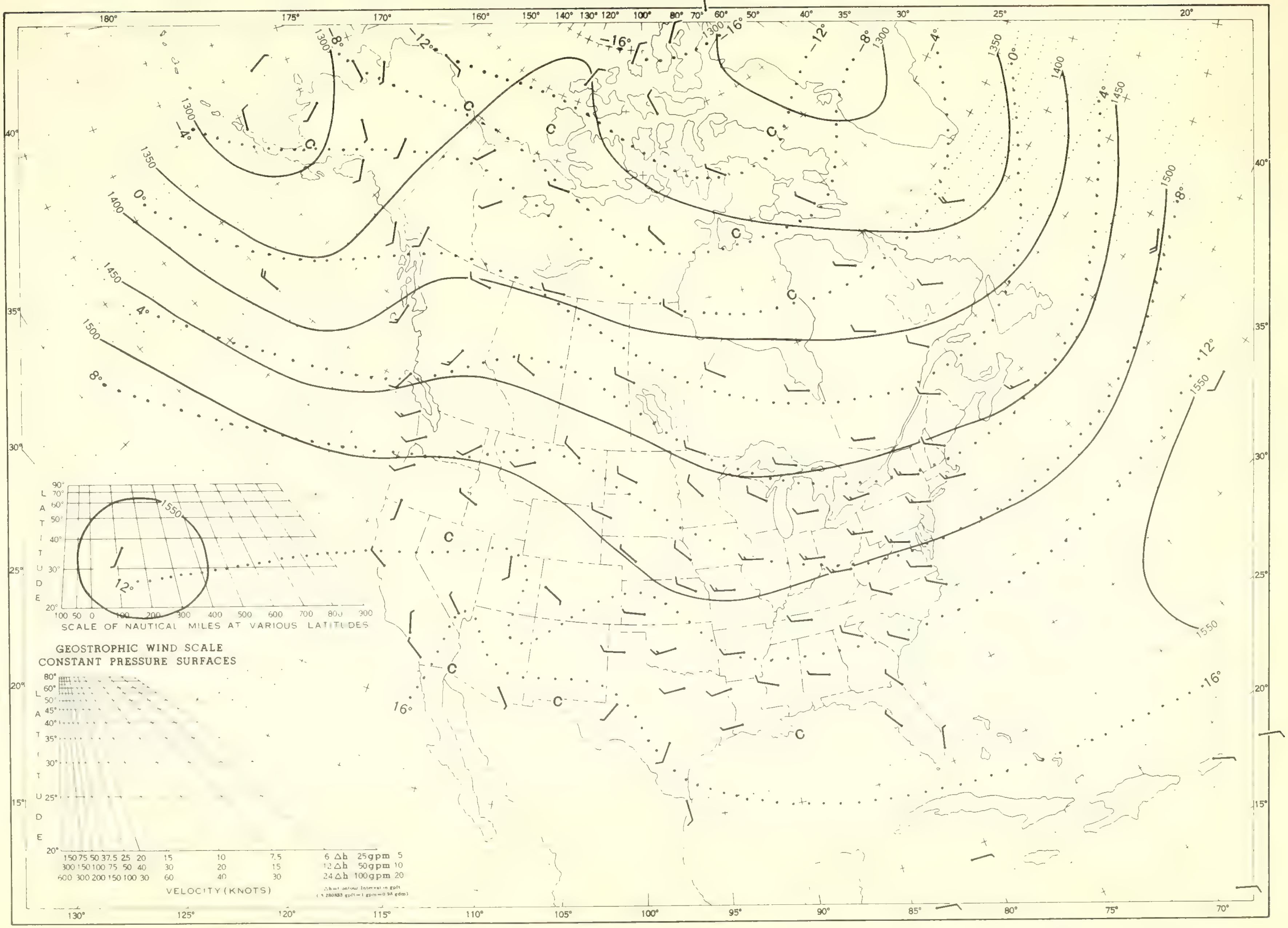
Circle indicates position of center at 7:00 a. m. E. S. T. See Chart VIII for explanation of symbols.

Chart X. Average Sea Level Pressure (mb.) and Surface Windroses, October 1962. Inset: Departure of Average Pressure (mb.) from Normal, October 1962.



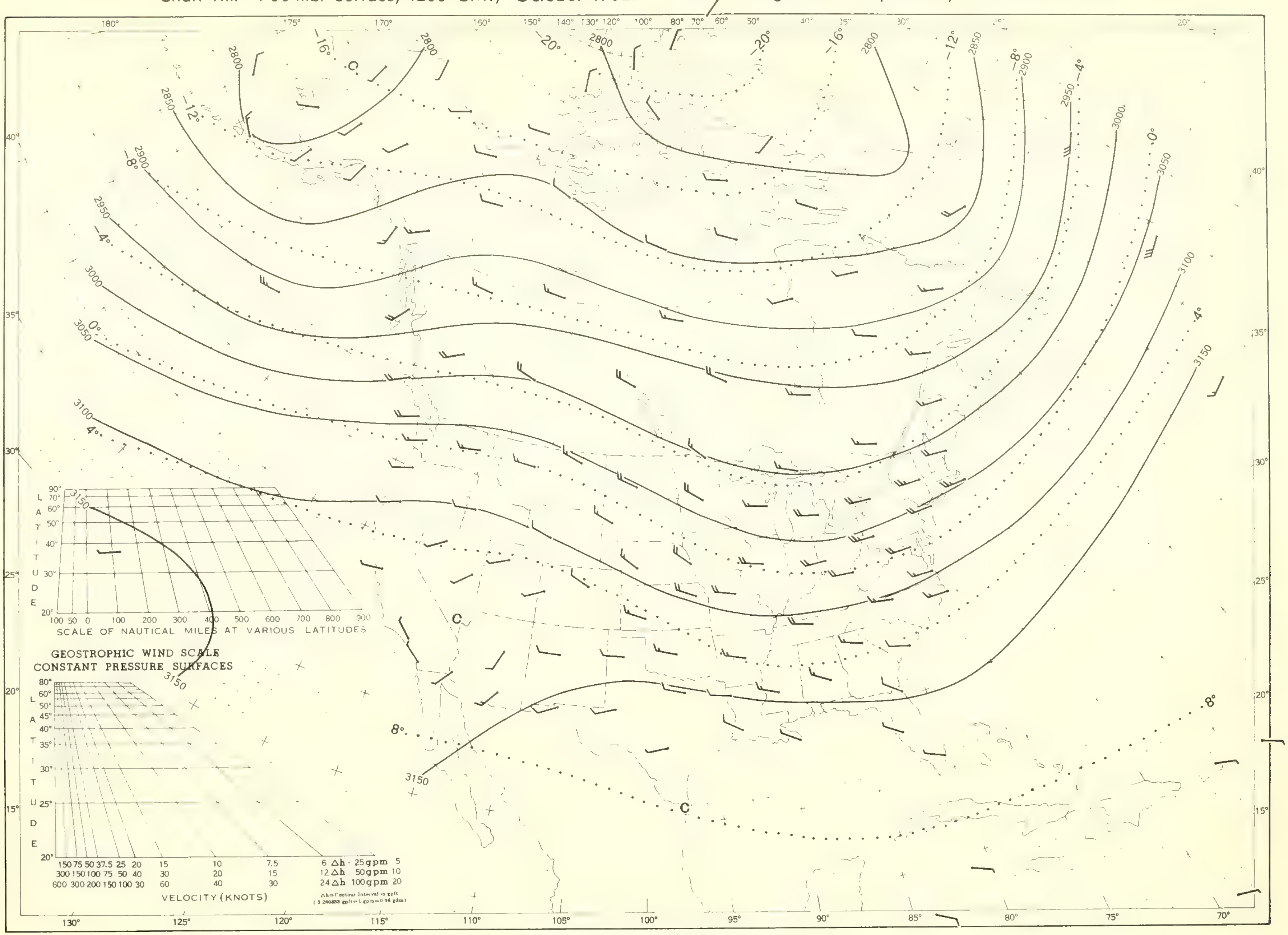
Average sea level pressures are obtained from the averages of the 7:00 a. m. and 7:00 p. m. E. S. T. readings. Windroses show percentage of time wind blew from 16 compass points or was calm during the month. Pressure normals are computed for stations having at least 10 years of record and for 10° intersections in a diamond grid based on readings from the Historical Weather Maps (1899-1939) for the 20 years of most complete data coverage prior to 1940.

Chart XI. 850-mb. Surface, 1200 GMT, October 1962. Average Height and Temperature, and Resultant Winds.



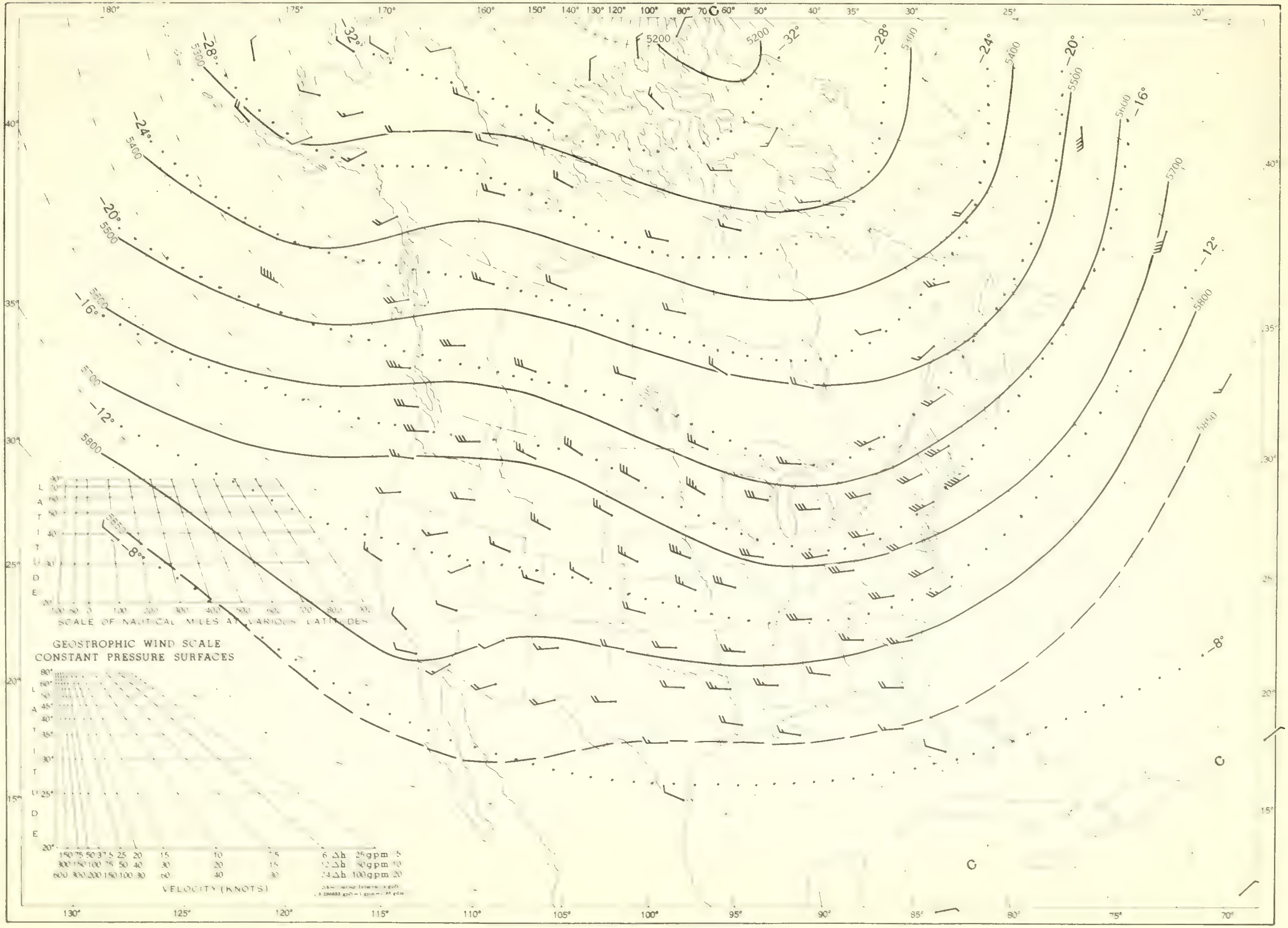
Height in geopotential meters (1 g.p.m. = 0.98 dynamic meters). Temperature in °C. Wind speed in knots; flag represents 50 knots, full feather 10 knots, and half feather 5 knots. All wind data are based on rawin observations.

Chart XII. 700-mb. Surface, 1200 GMT, October 1962. Average Height and Temperature, and Resultant Winds.



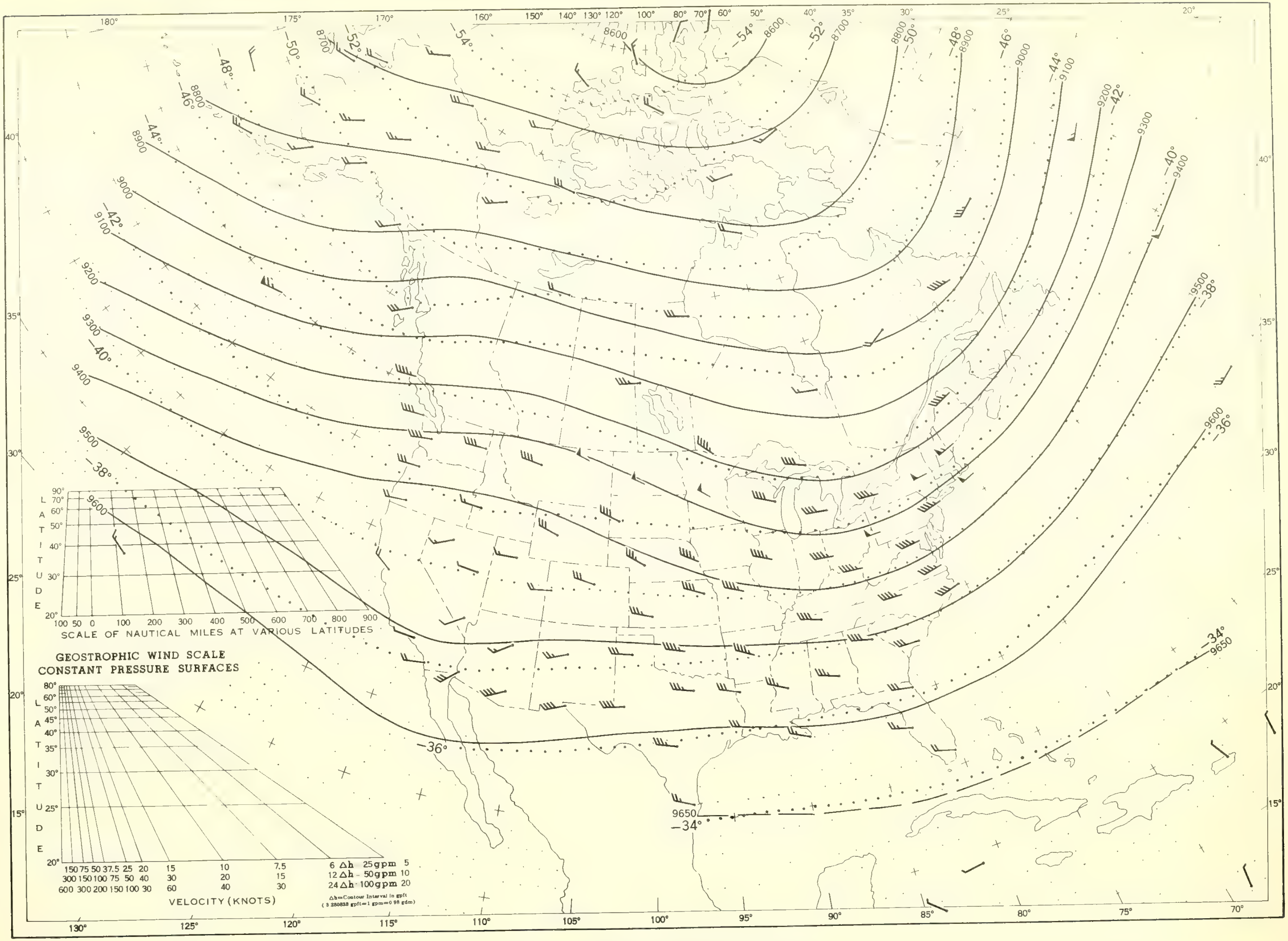
See Chart XI for explanation of map.

Chart XIII. 500-mb. Surface, 1200 GMT, October 1962. Average Height and Temperature, and Resultant Winds.



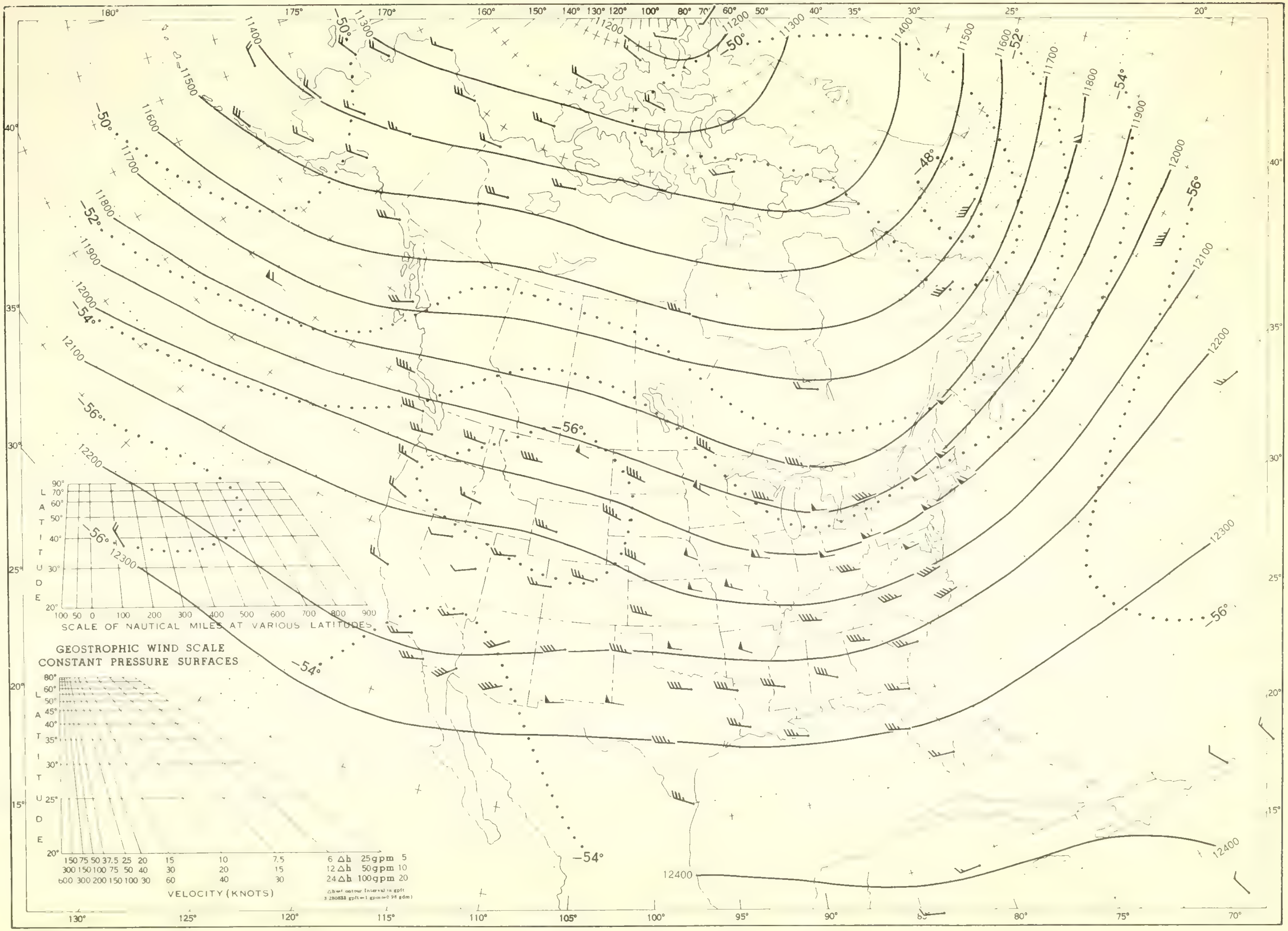
See Chart XI for explanation of map.

Chart XIV. 300-mb. Surface, 1200 GMT, October 1962. Average Height and Temperature, and Resultant Winds.



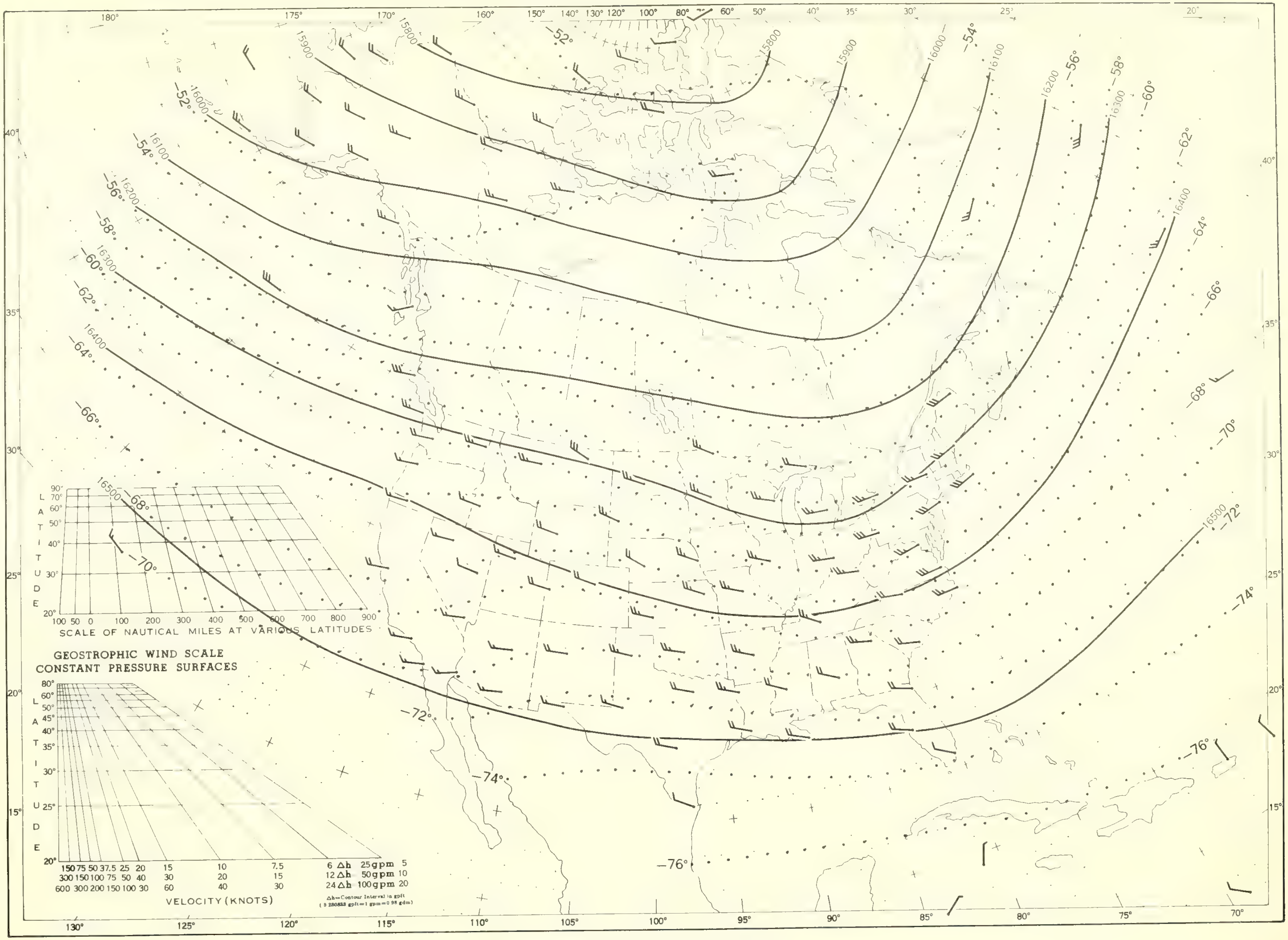
See Chart XI for explanation of map.

Chart XV. 200-mb. Surface, 1200 GMT, October 1962. Average Height and Temperature, and Resultant Winds.



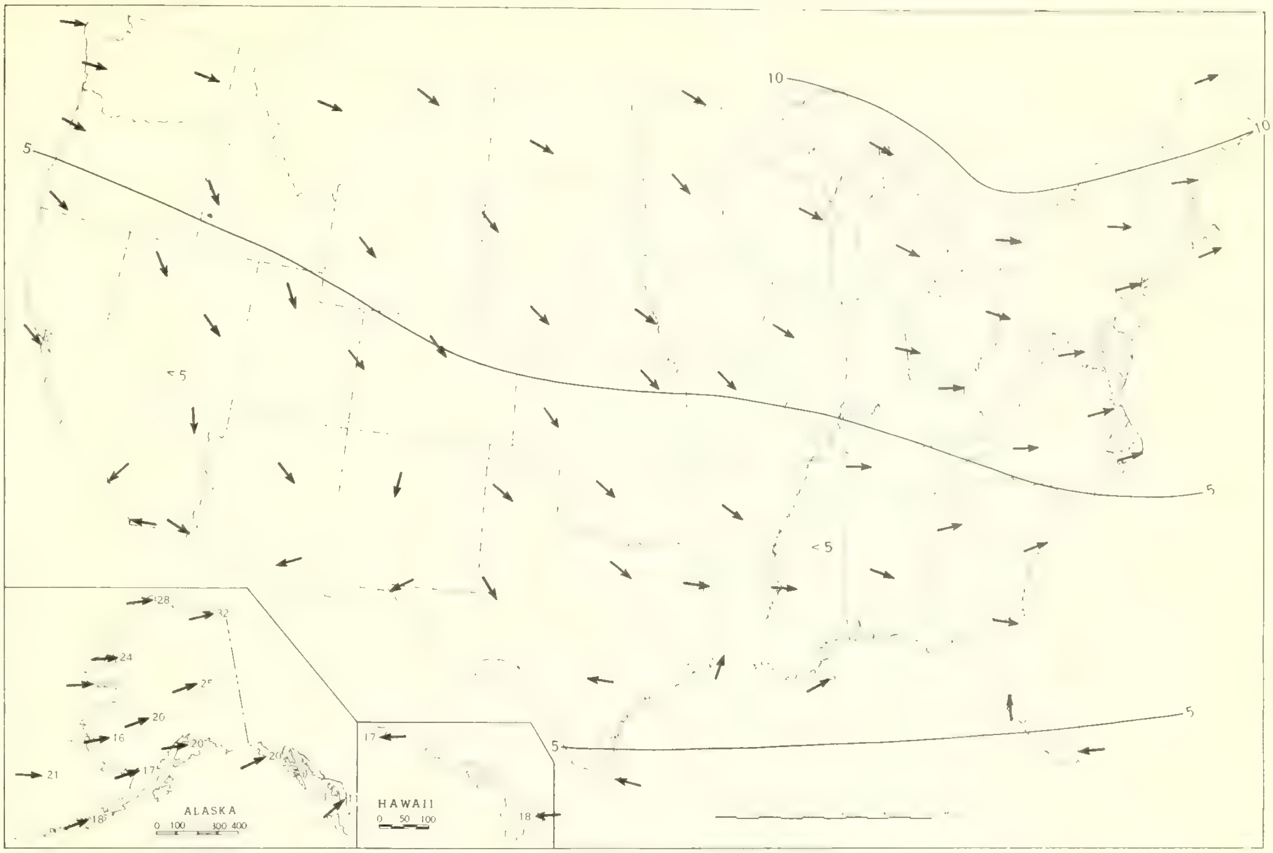
See Chart XI for explanation of map.

Chart XVI. 100-mb. Surface, 1200 GMT, October 1962. Average Height and Temperature, and Resultant Winds.

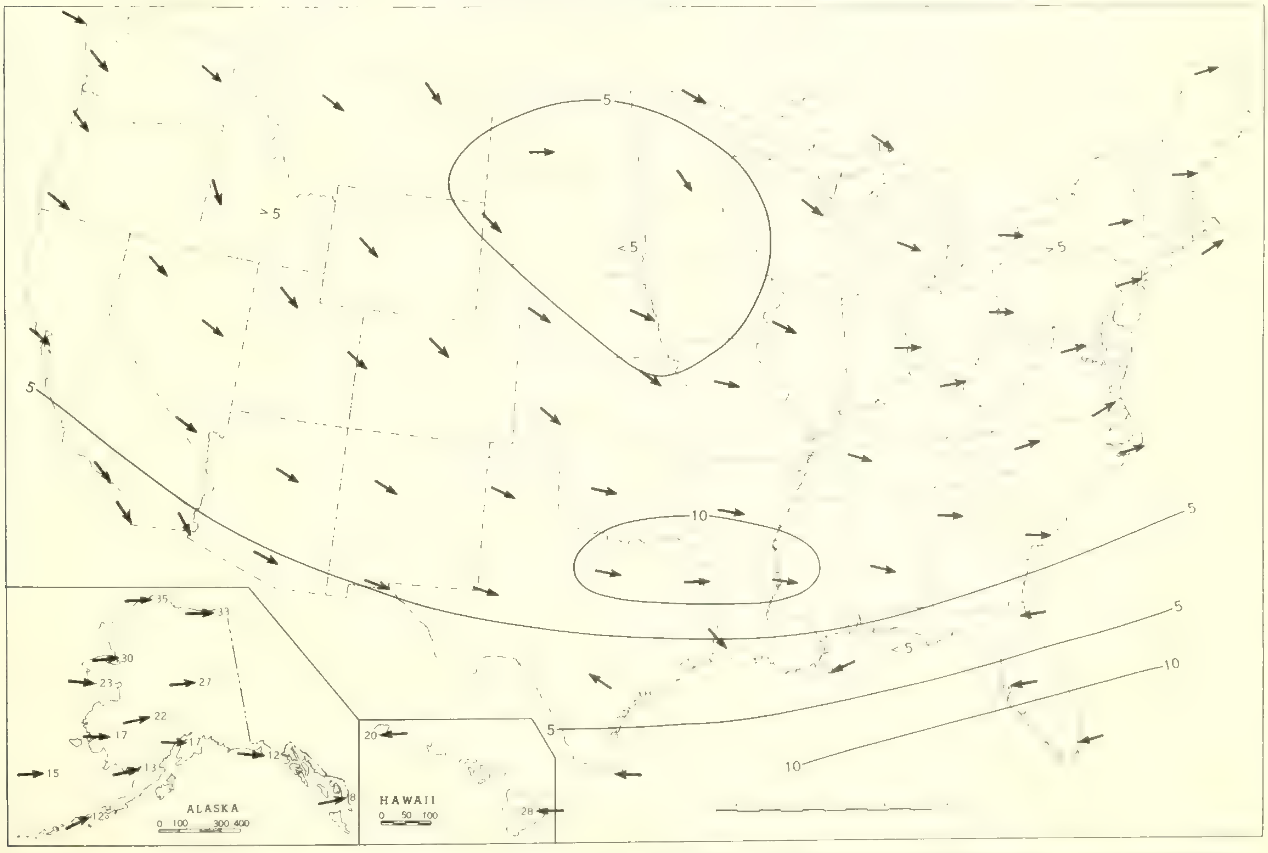


See Chart XI for explanation of map.

Chart XVII. A. 50-mb. Surface, 1200 GMT, October 1962. Resultant Winds.



B. 30-mb. Surface, 1200 GMT, October 1962. Resultant Winds.



Wind speed (isotachs) in knots. Arrows show resultant wind direction. All wind data are based on rawin observations.

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LUTHER H. HODGES, Secretary
WEATHER BUREAU
F. W. REICHELDERFER, Chief

CLIMATOLOGICAL DATA

NATIONAL SUMMARY

NOVEMBER 1962
Volume 13 No. 11

ASHEVILLE: 1963

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NOTE: Delayed data and corrections will be carried in the June and December issues of this publication.

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CLIMATOLOGICAL DATA

NATIONAL SUMMARY

Volume 13 No. 11

NOVEMBER 1962

GENERAL SUMMARY OF WEATHER CONDITIONS

Temperatures for November 1962 averaged above normal in the western two-thirds of the Nation and below in the East. Precipitation was generally normal or above in the Atlantic Coastal States, southern areas east of the Rockies, and the Pacific Northwest; but less than half normal in the Great Lakes region, the upper Mississippi Valley, parts of the northern Great Plains, and most of Wyoming, Utah, Nevada, and California. Mild, sunny weather prevailed most of the month, however, west of the Appalachians and was very favorable for harvesting operations. A storm system off the north Atlantic coast caused damage in New England on the 15th and 16th, and another the last 3 or 4 days of the month was responsible for high tides and waves which caused damage along the south Atlantic coast.

TEMPERATURE. --Temperatures for the month averaged as much as 10° above normal in the northern Great Plains and as much as 4° below in the Atlantic Coastal States. Day-to-day changes during most of the month were small.

Scattered stations in the Great Plains and Far West reported their warmest November since 1954 when average November temperatures also were above normal in the western two-thirds of the Nation, including Tucson, Ariz.; Glasgow, Mont.; Lincoln, Nebr.; and Lander, Wyo. Although extreme temperatures were few, San Antonio, Tex., reported a November high of 91° on the 11th, and Huron, S. Dak., a late season high of 77° on the 20th. No severe cold weather occurred in the Far West during the entire month.

Unseasonably cold weather prevailed in the East until the last few days of the month when mild temperatures prevailed during a period of "Indian Summer". In some sections the month was as much as 4° colder than normal. No extremely cold periods occurred, but temperatures were a few degrees below normal most of the time, thus accounting for the below-normal monthly averages. Binghamton, N. Y., had its coldest November since 1901, and Tampa, Fla., its second coldest since 1901. No freezing occurred during the month along the Gulf coast, eastern and southern Texas, and the central and lower portions of the Florida Peninsula.

PRECIPITATION.--Moderate to heavy precipitation occurred at rather regular intervals in the East during the first 3 weeks, as storm systems moved over the area. Monthly totals generally ranged from 4 to over 6 inches along the Atlantic and central and east Gulf coasts and in the Appalachian area. A number of stations in the area from Maryland and West Virginia southward reported over 200 percent of normal. Cape Hatteras, N. C., had a total of 14.63 inches for one of its wettest Novembers, and Washington, D. C., had 5.12 inches which was the greatest total there for November since 1952.

Many stations in the Great Lakes region reported the least precipitation in 20 years or more, and some the driest November since 1917. Chicago, Ill., had its driest November since 1949, and only 4.09 inches for the period August through November, the least amount for that period in 92 years. Precipitation was insufficient to relieve the dryness in the vicinities of Corpus Christi, Tex., and Mobile, Ala. Many stations in California reported only a trace of precipitation during the month. Phoenix, Ariz., reported the least precipitation on record for the period March through November 1962, 1.39 inches.

SNOWFALL. --Snowfall for November was generally lighter than usual except in some local areas. Many stations reported the least amount for November in many years. Chicago, Ill., had only 0.4 inch, the least since 1952; Marquette, Mich., 4.5 inches, the least since 1931; St. Louis, Mo., didn't even have a trace for the first time since 1939.

In the Far West, Pocatello, Idaho, had over 5 inches in each of two heavy storms the latter part of the month, and had a monthly total of 11.1 inches which was the second greatest amount for November on record. Harrisburg, Pa., had an early season snowstorm on the 3-4th. During a north Atlantic coastal storm on the 15th, a foot of snow fell over interior sections and on the southeast coast of Maine. Rhode Island reported depths of 4 inches in interior sections and 1 to 2 inches along the coast on the 18th. During a storm in the southwestern Great Plains on the 17th, Amarillo, Tex., reported a depth of 7 inches at noon on that date and a total fall of 7.6 inches for the storm.

DESTRUCTIVE STORMS AND OTHER UNUSUAL PHENOMENA. --One of the worst storms of the month was centered off the New England coast on the 15th when winds ranged up to 75 m.p.h., along the coast. Widespread, mostly minor damage occurred on land and mountainous seas caused extensive damage to shipping with the loss of several lives.

Another severe storm off the middle and south Atlantic coast the last few days of the month caused considerable beach erosion. Property damage as a result of beach erosion at Jacksonville, Fla., was estimated at several hundred thousand dollars.

A tornado moved from 27th to 35th street in Miami, Fla., on the 27th, causing damage estimated at a few thousand dollars.

CONDENSED CLIMATOLOGICAL SUMMARY

Section	Temperature						Precipitation			
	Monthly extremes						Monthly extremes			
	Station	Highest	Date	Station	Lowest	Date	Station	Greatest	Station	Least
		°F			°F			In.		In.
Alabama	Brantley	81	18	Valley Head	17	6	LaFayette	9.37	Waterloo	2.11
Alaska	Ketchikan	65	3+	Allakaket	-45	25	Little Port Walter	29.77	2 Stations	.02
Arizona	2 Stations	98	3+	Jacob Lake	7	19	Payson 12NNE	2.72	3 Stations	.00
Arkansas	Eudora	81	11	Gravette	18	9	Okay	4.44	Salem	.52
California	Palm Springs	102	1	2 Stations	0	29	Honeydew 2WSW	14.60	130 Stations	.00
Colorado	Eversoll Ranch	80	9	Antero Reservoir	-14	19+	Wolf Creek Pass 4W	4.24	Eastonville 2NNE	.10
Connecticut	Bulls Bridge Dam	68	10	Coventry	12	7	Lake Konomoc	5.40	Hartford WBAP	2.59
Delaware	3 Stations	65	22+	2 Stations	21	8+	Selbyville	6.41	Wilmington Ncastle WBAP	4.87
Florida	do	88	22+	Carrabelle 1NNW	26	27	Carrabelle 1NNW	7.55	Dania 4WNW	.05
Georgia	Bainbridge	83	17	Blairsville Exp Station	15	6	Atlanta Boulton	9.10	Savannah Beach	1.03
Hawaii	2 Stations	90	3+	Mauna Loa Slope Obs.	31	11+	Pepeekeo AF 140	13.50	16 Stations	.00
Idaho	Burley FAA AP	79	3	Chilly Barton Flat	-7	8	Mullan FAA	7.54	Idaho Falls 46W WB	.11
Illinois	Quincy	71	14	8 Stations	18	26+	Sainte Marie	3.18	Harrisburg Disposal Pl	.58
Indiana	Crane Naval Depot	72	30	Henryville State For	14	26	Covington No. 2	4.18	2 Stations	.61
Iowa	2 Stations	74	20	Harlan	10	25+	Tracy 1NE	1.67	3 Stations	.00
Kansas	Sharon Springs	83	10	Tribune 1W	9	19	Yates Center	2.20	Kirwin	.15
Kentucky	Williamsburg 2	73	30	Blaine 1W	15	28+	Freeburn 2SW	6.40	Uniontown Dam 49	.89
Louisiana	Hammond 3NW	85	16	Chatham	25	14	Hackberry 8SSW	7.04	Greensburg	.20
Maine	2 Stations	62	30	St. Francis	-9	20	West Enfield	9.27	Bingham Wyman Dam	3.00
Maryland	do	68	16	Oakland 1SE	11	26	Prince Frederick	7.75	Savage River Dam	2.29
Massachusetts	do	68	30	West Cummington	10	27	Nantucket WBAP	7.44	Pittsfield WBAP	1.86
Michigan	do	65	30+	3 Stations	8	24+	Port Huron Swg Pl	2.67	Sebewaing Mich Sugar Co	.26
Minnesota	3 Stations	72	21+	Bigfork	-2	5	Caribou 2S	1.15	Lanesboro	.00
Mississippi	Wiggins 4SE	83	17	Houston 2NW	20	10	Winona 4ENE	6.79	Centreville 4ESE	1.14
Missouri	2 Stations	74	16+	2 Stations	12	9	Fisk	2.30	Oldfield	.10
Montana	Conrad	82	3	Wisdom	-17	24	Troy 18N	7.74	Turner	.00
Nebraska	2 Stations	79	21+	Broken Bow 2W	7	18	Tecumseh	1.47	5 Stations	.00
Nevada	do	89	2+	Mountain City RS	-5	30	Owyhee	1.96	12 Stations	.00
New Hampshire	Windham	67	30	Fayban	3	26	West Henniker	4.97	Marlow	1.16
New Jersey	Long Valley	68	30	Layton	13	27	New Monmouth	6.11	Midland Park	3.03
New Mexico	Gowdy Ranch	85	13	Red River	-9	19	Bateman Ranch	2.60	2 Stations	.00
New York	3 Stations	67	30+	2 Stations	0	26+	White Plains Airport	5.89	Ogdensburg 3NE	.48
North Carolina	Chapel Hill 2W	80	18	do	11	26+	Cape Hatteras WB	14.63	Tryon	2.01
North Dakota	Marmarth	70	6	4 Stations	4	22	Harvey	1.89	2 Stations	T
Ohio	Milford	71	29	Tom Jenkins Dam	11	26	Gallipolis 5W	5.14	Montpelier	.61
Oklahoma	Gate 1NNE	81	4	Kenton	12	18	Willis Okla U Biol Sta	5.14	Gage FAA AP	.36
Oregon	3 Stations	80	1	Austin 3S	-6	29	Valsetz	31.10	00 Ranch	.41
Pennsylvania	Farrell Sharon	74	30	2 Stations	8	26	South Mountain	6.51	Clarion 3SW	.59
Puerto Rico	3 Stations	94	5	Cayey 1NW	55	29+	Lares	7.68	Magueyes Island	.00
Rhode Island	Greenville	64	30	Kingston	19	20	Block Island WBAP	7.49	Providence WBAP	4.49
South Carolina	7 Stations	80	22+	Chester 2WSW	21	6	Marion	6.95	Hilton Head	1.94
South Dakota	Kennebec	78	20	Custer	2	19	Deadwood	1.29	Several Stations	T
Tennessee	Memphis WBAP	76	11	Mountain City 2	15	26	Monteagle	8.81	Lexington	1.07
Texas	Armstrong	96	17	3 Stations	19	20+	Humble	8.38	5 Stations	.00
Utah	St. George PH	82	3+	Woodruff	-5	19	Cedar Point	1.79	2 Stations	.00
Vermont	3 Stations	62	30+	Somerset	2	27+	Bloomfield	3.65	Rutland	1.36
Virginia	Powhatan 5SW	75	17	Floyd 2NE	11	26	Woolwine	9.54	Monterey	2.52
Washington	2 Stations	75	2+	Stockdill Ranch	4	29	Cougar 6E	29.12	McNary Dam	.43
West Virginia	3 Stations	70	30+	Moorefield McNeil	10	27	Richwood 1E	7.60	Keyser	1.45
Wisconsin	Janesville	65	30	Ridgeland 1ENE	3	25	Manitowoc	2.08	2 Stations	T
Wyoming	Kaycee	75	3	Kendall	-12	23	Tower Falls	2.03	Shoshoni	.00

+ And also on an earlier date or dates.

NOTE: Dates in the above Condensed Climatological Summary apply to the period 24 hours prior to time of observation. In some cases the actual occurrence is on the calendar date preceding that shown. (See individual Climatological Data for times of observations).

CLIMATOLOGICAL DATA

ENGLISH UNITS

State and Station	Elevation (ground)	Pressure		Temperature											Average relative humidity	Precipitation							Wind					No. of days (sunrise to sunset)			Sky cover, tenths (sunrise to sunset)	Possible sunshine
												No. of days							No. of days		Snow, Sleet				Fastest mile							
		Station Ø	Sea level	Average maximum	Average minimum	Average	Departure from normal	Highest	Date	Lowest	Date	Max. 90° F. or above	Min. 32° F. or below	Average dew point		Total	Departure from normal	Greatest in 24 hours	.01 inch or more	With thunderstorms	Total	Maximum depth on ground	Average speed	Prevailing direction	Speed	Direction	Date	Clear, 0-3	Partly cloudy, 4-7	Cloudy, 8-10		
	Ft.	Mb.	Mb.	F.	F.	F.	F.	F.		F.				F.	%	In.	In.	In.			In.	In.	M.p.h.		M.p.h.							%
ALABAMA																																
BIRMINGHAM	610	994.4	1020.1	62	42	52.0	0.2	74	16	32	23	0	1	41	69	6.41	2.88	2.90	10	2	0.0	0	9.2	ENE	27	S	16+	9	3	18	6.6	47
HUNTSVILLE	605	996.6	1020.0	60	39	49.8	- 1.0	71	30+	27	6	0	8	39	70	5.47	1.82	1.90	11	1	0.0	0	8.5	N	28*	NW	22	10	2	18	6.4	
MOBILE	211	1016.8	1019.2	67	47	56.9	- 1.0	78	17	37	6	0	0	44	65	2.75	-0.60	1.06	8	1	0.0	0	7.4	NE	28*	NW	12	7	10	13	6.1	
MONTGOMERY	195	1011.9	1019.7	64	42	53.0	- 1.2	79	16	26	6	0	4	42	71	5.60	2.58	3.00	7	2	0.0	0	8.6	NNE	27	SW	16	8	7	15	6.2	50
ALASKA												B																				
ANCHORAGE	90	990.9	995.8	28	16	22.3	0.1	51	3	- 4	25+	0	27	16	83	0.49	-0.54	0.41	3	0	3.0	2	4.8	N	21*	ESE	3	6	7	17	6.4	53
ANNETTE	110	999.0	1002.7	48	40	44.0	4.0	64	2	33	22	0	0	39	82	15.28	0.63	2.42	29	2	T	0	12.2	ESE	40*	SE	6	0	2	28	9.4	
BARROW	22	1008.8	1009.6	8	- 2	3.0	3.7	26	5+	-20	28	0	30	- 2	76	0.02	-0.21	0.02	1	0	0.2	9	14.5	ENE	40*	E	7	5V	1V	12V		
BARTER ISLAND	39	1007.1	1008.9	12	2	6.7	6.5	27	5+	-25	29+	0	30	- 1	68	0.19	-0.21	0.13	4	0	1.9	4	19.0	E	46*	E	7+	8X	3X	12X		
BETHEL	125	994.6	995.7	20	8	13.8	- 3.4	39	16+	-17	26	0	30	9	78	0.16	-0.90	0.06	7	0	3.0	3	10.6	NNE	26*	NNE	23+	1	6	23	8.6	
COLD BAY	94	987.1	990.8	39	33	35.8	1.5	47	1	22	30	0	14	33	87	2.57	-1.22	0.54	21	0	2.1	3	15.5	NW	41*	NNW	27	1	5	24	8.6	
CORDOVA	40	992.6	994.5	40	26	33.0	1.9	55	3	5	30	0	22	28	84	7.58	-0.44	1.83	16	1	1.4	1	5.4	E	22*	ESE	3	2	6	22	8.2	
FAIRBANKS	436	984.8	1002.5	12	- 4	4.4	0.5	42	4	-32	27	0	30	- 1	74	0.17	-0.43	0.05	6	0	3.1	2	4.3	N	15*	N	2	17	4	9	3.9	
JUNEAU	17	998.6	999.6	42	34	37.8	3.5	55	3	24	30	0	13	34	86	4.03	-2.03	0.63	21	0	6.5	3	8.2	ESE	35*	ESE	18	0	0	30	9.9	2
KING SALMON	43	990.4	992.5	32	18	25.1	3.1	49	2+	- 9	26	0	22	18	73	0.71	-0.77	0.44	7	0	6.1	3	11.7	N	35*	ENE	27	6	6	18	7.1	
KOTZEBUE	10	1003.4	1003.6	12	3	7.7	0.3	30	7+	-22	30	0	30	2	76	0.10	-0.26	0.07	3	0	2.1	4	9.7	E	28*	E	17+	13	3	14	5.4	
MC GRATH	334	987.1	1000.6	9	- 4	2.4	- 2.9	31	5+	-41	27	0	30	- 3	75	0.28	-0.80	0.23	3	0	10.7	15	1.9	N	12*	NNW	10+	7	5	18	7.0	
NOME	13	999.3	1000.2	22	10	16.1	- 0.4	38	2	-16	30	0	30	9	71	0.03	-1.13	0.02	2	0	0.4	1	9.3	N	28*	ENE	17	6	6	18	7.1	21
ST. PAUL ISLAND	22	991.8	993.0	37	27	32.0	- 0.9	43	1	16	28	0	23	29	87	2.15	-0.35	0.36	25	0	8.0	5	19.3	NW	48*	NE	13	0	3	27	9.3	
SHEMYA	122	996.3	1000.1	38	31	34.3	- 1.5	45	5	22	29	0	20	29	80	3.04	0.32	0.95	21	0	11.9	3	22.3	WSW	56*	WSW	10	1	14	15	7.5	
YAKUTAT	28	994.9	996.1	41	30	35.5	1.7	51	3+	10	30	0	18	32	87	18.22	2.19	3.78	22	1	25.7	21	8.9	ENE	35*	SSE	7+	3	2	25	8.6	
ARIZONA																																
FLAGSTAFF	6993	792.1	1020.1	56	24	39.8	3.2	70	2	16	28	0	28	24	62	1.23	0.23	0.57	7	1	2.9	T	5.6	N	26*	NNE	19	13	7	10	4.4	
PHOENIX	1109	975.6	1014.9	77	46	61.9	2.8	88	12+	35	20	0	0	32	37	0.03	-0.46	0.03	1	1	0.0	0	4.6	ESE	14*	WSW	16	19	4	7	3.2	83
PRESCOTT	5014	848.6	1017.9	66	35	50.4	4.7	80	2+	24	19	0	12	26	46	0.45	-0.05	0.27	3	1	T	0	8.5	SSW	35	SW	16	15	11	4	3.7	81
TUCSON	2584	926.5	1014.9	75	48	61.5	3.9	86	12	32	19	0	1	31	37	0.49	-0.13	0.28	4	0	0.0	0	8.6	SSE	26	S	30	17	6	7	3.3	83
WINSLOW	4880	854.0	1020.0	63	33	47.9	6.1	75	13	25	8	0	14	30	59	1.07	0.71	0.78	4	1	0.1	T	6.6	ESE	26*	WNW	16	15	8	7	4.1	
YUMA	199	1009.8	1015.1	84	52	68.0	3.6	98	3	42	20+	9	0	36	37	0.04	-0.08	0.04	1	0	0.0	0	6.2	N	21	N	19	20	4	6	2.9	87
ARKANSAS																																
FORT SMITH	449	1003.2	1020.5	61	40	50.3	0.3	72	11	27	9	0	2	41	75	2.90	-0.28	1.65	9	1	0.0	0	7.2	ENE	26	W	16	9	9	12	6.0	49
LITTLE ROCK	257	1007.3	1020.8	61	41	50.7	1.2	74	16	30	10	0	4	41	72	1.69	-2.43	0.48	10	0	0.0	0	7.0	NNE	30	W	16	11	2	17	6.3	46
TEXARKANA	361		1020.4	62	44	53.2	- 0.5	78	11	34	9+	0	0	45	80	3.29	-1.04	1.31	10	0	0.0	0	8.5	NW								
CALIFORNIA																																
BAKERSFIELD	494	1002.0	1020.1	68	45	56.6	0.7	83	2+	33	29	0	0	42	62	T	-0.49	T	0	0	0.0	0	5.6	E	18*	NW	17	14	7	9	4.5	
BISHOP	4108	876.6		66	28	47.4	1.6	81	1	20	30	0	24			0.00	-0.53	0.00	0	0	0.0	0						16	5	9	4.2	
BLUE CANYON	5280	841.2		54	41	47.1	1.9	73	1	26	29	0	4			4.02	-2.73	2.19	6	0	6.4	2	7.8	ENE	35	ENE	18	7	7	16	6.4	
BURBANK	699	991.2	1017.2	71	49	60.1	- 0.3	86	7+	41	16	0	0	43	62	T	-1.05	T	0	0	0.0	0	6.1	ESE	30*	N	16	15	7	8	4.4	
EUREKA U	43	1018.8		58	47	52.3	1.1	69	8	35	29	0	0			6.77	2.16	2.24	17	0	0.0	0	5.3		34	SW	12	5	4	21	7.6	49
FRESNO	326	1006.8	1019.0	68	42	55.2	2.0	83	1	30	30+	0	3	43	70	0.03	-0.92	0.03	1	0	0.0	0	4.9	NW	24	NW	16	13	9	8	4.4	82
LONG BEACH	34	1016.3	1017.7	70	50	60.2	- 0.2	81	2	41	18	0	0	50	76	T	-1.03	T	0	0	0.0	0	5.4	WNW	29*	WNW	16	12	7	11	5.3	
LOS ANGELES	97	1013.9	1017.8	67	53	59.7	- 0.4	76	2	44	18	0	0	50	75	0.02	-1.07	0.02	1	0	0.0	0	6.5	W	28*	N	16	12	8	10	5.2	
LOS ANGELES U	312			69	52	60.6	- 2.1	81	1	46	22	0	0	47	67	T	-1.08	T	0	0	0.0	0	5.2	W#	29	NW	16	17	3	10	4.1	73
MT SHASTA R	3544	895.4		54	33	43.2	1.4	74	2	17	29	0	14			2.98	-0.99	1.90	10	0	0.8	1						10	10	10	5.4	
OAKLAND	3	1019.6	1020.0	65	47	56.0	1.3	77	1	37	29	0	0	47	74	0.61	-1.12	0.51	4	0	0.0	0	6.4	WNW	21*	S	26+	10	10	10	5.4	
POINT ARGUELLO	367	1004.7		63	45	53.7	- 1.6	73	2	34	20+	0	0			0.03	-0.88	0.01	3	0	0.0	0	6.9		28*	NW	16	12	7	11	5.2	
RED BLUFF	341	1006.8	1019.6	66	44	55.0	0.5	86	1	38	29+	0	0	41	65	0.90	-1.39	0.80	6	0	0.0	0	7.7	NW	37	SE	26	10	9	11	5.3	73
SACRAMENTO	17	1019.0	1019.9	65	44	54.6	0.2	78	1	34	30	0	0	47	81	0.39	-1.06	0.32	2	0	0.0	0	3.6	NNW	24	NW	18	12	8	10	5.1	73
SACRAMENTO U	225			67	47	56.6	1.9	79	1	36	30	0	0			0.40	-1.14	0.35	3		0.0	0										
SANDBERG R	4517	864.5		59	43	50.9	1.9	75	2	24	29	0	7			0.00	-0.92	0.00	0	0	0.0	0	11.9	N	37*	N	17	19	6	5	3.1	
SAN DIEGO	13	1013.9	1017.0	68	52	59.8	- 1.5	75	2	45	21+	0	0	50	73	0.01	-0.89	0.01	1	0	0.0	0	5.6	NW	19	NW	12	9	11	10	5.6	62
SAN FRANCISCO	8	1019.6	1020.6	64	48	55.7	0.9	79	1	37	29	0	0	49	80	0.36	-1.21	0.25	4	0	0.0	0	8.4	WNW	33	WNW	14	10	13	7	4.8	
SAN FRANCISCO U	52			65	53	58.8	1.4	81	1	46	29	0	0			0.60	-1.40	0.37	3	0	0.0	0	6.0	W#	20	N	18					72
SANTA MARIA	238	1010.2	1018.9	68	44	55.7	- 0.4	83	21	35	19	0	0	46	76	T	-1.02	T	0	0	0.0	0	6.0	NW	26*	NW	16	16	6	8	4.0	
COLORADO																																
ALAMOSA	7536	772.8		52	15	33.6	4.1	63	4	5	20+	0	30			0.52	0.23	0.37	4	0	6.7	6						13	10	7	4.3	

See footnotes at end of table

CLIMATOLOGICAL DATA

ENGLISH UNITS

State and Station	Elevation (ground)	Pressure		Temperature											Average relative humidity	Precipitation							Wind					No. of days (sunrise to sunset)			Sky cover, tenths (sunrise to sunset)	Possible sunshine
												No. of days							No. of days		Snow, Sleet				Fastest mile							
		Station Ø	Sea level	Average maximum	Average minimum	Average	Departure from normal	Highest	Date	Lowest	Date	Max. 90 F. or above	Min. 32 F. or below	Average dew point		Total	Departure from normal	Greatest in 24 hours	.01 inch or more	With thunderstorms	Total	Maximum depth on ground	Average speed	Prevailing direction	Speed	Direction	Date	Clear, 0-3	Partly cloudy, 4-7	Cloudy, 8-10		
COLORADO	Ft.	Mb.	Mb.	F.	F.	F.	F.	F.		F.				F.	%	In.	In.	In.			In.	In.	M.p.h.		M.p.h.							%
COLORADO SPRINGS	6173	813.1	1021.0	52	29	40.5	3.0	66	4	13	19	0	22	20	52	0.89	0.49	0.45	3	0	8.3	5	9.2	NE	32*	NNW	21	14	3	13	5.0	
DENVER	5283	838.8	1018.3	56	27	41.3	2.1	72	5	15	19	0	25	20	51	0.68	-0.01	0.46	4	0	5.0	2	9.7	S	48	W	6	12	6	12	5.4	62
GRAND JUNCTION	4849	862.2	1020.0	56	33	44.1	5.3	67	3+	22	19	0	16	24	52	0.36	-0.22	0.22	3	0	3.3	3	4.1	ESE	22	W	10	11	9	10	5.1	76
PUEBLO	4639	858.1	1019.0	58	28	43.0	3.0	73	9	13	19	0	21	25	57	0.77	0.24	0.40	3	0	4.8	5	7.2	WNW	34	NW	10	14	6	10	4.9	72
CONNECTICUT																																
BRIDGEPORT	7	1019.0	1019.9	48	34	41.2	- 3.3	60	29+	25	7	0	12	30	67	3.25	-0.77	1.23	6	0	0.3	T	13.9	NNW	38*	SE	10	10	8	12	5.9	
HARTFORD	169	1013.0	1019.1	47	28	37.4	- 3.8	63	10	18	19	0	25	28	72	2.59	-1.25	0.85	10	0	2.4	2	7.2	N	25	NW	23+	10	3	17	6.4	51
NEW HAVEN	6	1018.3		49	33	41.1	- 2.3	61	10	25	25+	0	13			3.61	-0.44	1.26	7	0	2.0	1	8.8		29	NW	22	10	6	14	6.1	57
DELAWARE																																
WILMINGTON	78	1016.4	1019.6	51	34	42.5	- 2.9	62	30+	24	7	0	14	32	69	4.87	1.34	1.46	8	0	T	T	10.9	NW	37*	WNW	22+	8	8	14	6.5	
DIST.OF COLUMBIA																																
WASHINGTON U	72			52	36	43.8	- 4.2	65	16	28	7	0	5			5.03	2.21	1.50[1]	9													
WASH NATL AP	14	1014.9	1019.6	53	37	44.9	- 2.8	64	16	29	7	0	2	33	64	5.12	2.28	1.56	10	0	T	T	8.4	N	39	ESE	10	8	5	17	6.5	46
FLORIDA																																
APALACHICOLA U	13	1016.6		66	51	58.7	- 2.6	75	18	40	27	0	0			5.65	3.07	2.11	9	2	0.0	0						14	9	7	4.6	
DAYTONA BEACH	31	1016.6	1018.2	72	52	62.0	- 3.3	83	21	40	11	0	0	54	77	2.49	0.16	1.24	9	2	0.0	0	10.0	NW	25	N	26+	8	12	10	5.4	
FORT MYERS	13	1016.9		76	56	66.1	- 3.1	85	21+	43	27	0	0			3.01	1.81	2.55	5	0	0.0	0	9.6		23*	N	26+	16	7	7	4.3	
JACKSONVILLE	24	1017.6	1018.9	69	49	58.9	- 2.8	84	21	36	15	0	0	49	73	2.08	0.39	0.70	10	0	0.0	0	9.0	N	42	NE	30	10	8	12	5.5	69
KEY WEST	5	1016.3	1016.9	76	67	71.6	- 2.5	82	21+	56	27	0	0	62	71	1.16	-1.64	0.87	7	0	0.0	0	13.3	NE	32	SE	8	9	12	9	5.5	67
LAKELAND U	214			72	54	62.9	- 4.0	83	21+	38	27	0	0			1.99	0.40	1.27	5	0	0.0	0	7.6					13	7	10	4.8	56
MIAMI BEACH	9			77	65	70.7	- 3.1	85	22	47	27	0	0			1.86	-0.67	1.42	5		0.0	0	12.6		30	SW	9	9	10	11	5.4	54
MIAMI	7	1015.9	1017.0	76	60	68.1	- 4.3	83	22	45	27	0	0	58	73	4.15	1.32	3.57	5	1	0.0	0	8.8	NNW	25*	N	14	7	11	12	5.8	
ORLANDO	106	1013.5	1017.9	73	53	63.0	- 2.9	85	18	41	27	0	0	53	74	2.46	0.89	1.91	7	0	0.0	0	9.4	N	25*	WNW	9	10	11	9	5.2	
PENSACOLA U	13			66	49	57.6	- 2.1	74	17	39	27	0	0			6.41	3.01	3.03	8	0	0.0	0	9.2	NE	29	NW	12					60
TALLAHASSEE	58	1016.6	1019.3	68	44	56.2	- 3.0	78	18+	30	15	0	2	47	74	7.42	4.98	2.92	9	1	0.0	0	9.2	N	23*	NW	22+	11	9	10	5.3	
TAMPA	19	1016.6	1018.3	72	53	62.5	- 4.3	80	21+	37	27	0	0	54	76	2.21	0.75	0.98	6	1	0.0	0	12.0	N	29*	SSW	21	12	10	8	4.9	62
WEST PALM BEACH	15	1016.3	1017.3	77	59	67.9	- 4.6	84	20+	42	27	0	0	58	72	1.11	-1.75	0.62	4	1	0.0	0	10.6	NW	27*	ESE	8	7	9	14	6.2	
GEORGIA																																
ATHENS	803	990.1	1019.6	61	40	50.7	- 0.8	72	11	26	6	0	3	40	70	4.85	1.92	2.59	9	1	0.0	0	8.9	ENE	28*	NW	22+	10	6	14	5.8	
ATLANTA	1005	976.6	1019.4	59	39	49.1	- 2.0	67	30+	30	23+	0	4	37	67	6.19	3.23	3.16	9	1	0.0	0	8.2	NE	23*	NW	18	10	3	17	6.1	58
AUGUSTA	143	1011.9	1018.8	64	41	52.3	- 1.8	76	17	29	23+	0	4	43	73	2.45	0.27	1.58	8	1	0.0	0	7.3	NE	31*	WNW	22	8	6	16	6.2	
COLUMBUS	385	1005.1		64	40	52.1	- 2.0	76	17	28	6	0	6			4.13	1.54	1.69	7	1	0.0	0	8.6		28*	WSW	9	11	2	17	6.1	
MACON	356	1005.4	1019.1	65	42	53.1	- 2.3	76	17	29	6	0	1	41	68	3.57	1.12	1.40	8	1	0.0	0	7.9	NE	29	NW	22	11	6	13	5.5	55
ROME	637	996.6		60	36	47.8	- 1.4	71	16	22	6	0	13			6.24	2.82	2.76	9	1	0.0	0						9	7	14	6.1	
SAVANNAH	48	1016.6	1019.1	65	44	54.4	- 2.9	79	21	31	6	0	2	44	72	1.85	-0.20	0.86	9	0	0.0	0	10.6	NNE	30	SW	22	11	4	15	6.1	51
THOMASVILLE U	283			67	46	56.5	- 2.9	79	17	36	6	0	0			4.97	2.89	1.70	10	1	0.0	0						11	8	11	5.0	
HAWAII																																
HILO	31	1016.9	1018.8	80	65	72.6	- 0.6	85	3	62	25	0	0	64	77	6.63	-6.74	1.65	22	0	0.0	0	6.6	WSW	16*	SE	18+	6	11	13	6.7	45
HONOLULU	7	1017.5	1017.9	84	71	77.5	1.6	86	18+	63	15	0	0	62	62	0.03	-2.13	0.02	2	0	0.0	0	12.7	ENE	34	NE	29	8	17	5	5.0	52
KAHULUI	44	1014.2	1017.4	84	67	75.4		88	14	62	16+	0	0	63	66	0.27		0.11	6	0	0.0	0	21.8	NE	51*	NE	29	19	7	4	3.4	76
LIHUE	115	1013.2	1019.2	81	70	75.8	1.3	84	18+	66	15+	0	0	66	73	3.30	-1.23	0.86	19	0	0.0	0	14.2	NE	30	E	28	4	16	10	6.4	50
IDAHO																																
BOISE	2838	923.1	1021.0	51	32	41.4	2.3	65	2+	21	17	0	15	33	76	1.67	0.47	0.79	9	0	0.3	T	7.5	SE	24	S	30	2	8	20	7.9	59
IDAHO FALLS 42NW R	4790			47	18	32.7	4.6	63	3	6	24	0	29			0.25	-0.08	0.13	6				5.6	N	34	S	26					
IDAHO FALLS 46W R	4933	850.0		48	20	33.7	3.9	65	3	2	23	0	29			0.11	-0.30	0.07	5	0	T	T	6.2	SW	35	SW	22					
LEWISTON	1413	966.5		50	36	43.2	3.4	66	20+	27	29	0	7			1.37	0.14	0.71	9	0	0.0	0						1	4	25	9.0	
POCATELLO	4444	866.2	1021.9	50	27	38.3	3.3	67	3	11	18	0	23	26	65	1.10	0.11	0.51	7	0	11.1	5	10.2	SSW	43	SW	22	6	7	17	6.9	54
ILLINOIS																																
CAIRO U	314	1007.2		56	40	47.9	0.0	67	29+	32	5	0	1			1.45	-2.42	0.48	10	1	0.0	0	8.1	N#	25	SW	15	7	5	18	6.8	41
CHICAGO O HARE	658	995.1	1020.2	50	30	40.1		64	30	21	25+	0	20	31	73	0.71		0.38	9	0	0.3	T	9.3	NNW	26*	SSW	20	6	5	19	7.4	
CHICAGO MIDWAY	610	997.3	1020.7	50	35	42.4	2.4	66	30	27	24+	0	7	31	68	1.09	-1.11	0.57	10	0	0.4	T	9.5	S	37	W	23	6	3	21	7.3	37
MOLINE	582	998.1	1020.9	49	29	39.0	0.3	66	14	18	9	0	22	30	72	1.21	-0.74	1.06	6	0	T	T	9.7	E	45	NW	23	8	7	15	6.4	42

See footnotes at end of table

CLIMATOLOGICAL DATA

ENGLISH UNITS

State and Station	Elevation (ground)	Pressure		Temperature											Average relative humidity	Precipitation							Wind					No. of days (sunrise to sunset)			Sky cover, tenths (sunrise to sunset)	Possible sunshine
												No. of days							No. of days		Snow, Sleet				Fastest mile							
		Station Ø	Sea level	Average maximum	Average minimum	Average	Departure from normal	Highest	Date	Lowest	Date	Max. 90 °F. or above	Min. 32 F. or below	Average dew point		Total	Departure from normal	Greatest in 24 hours	.01 inch or more	With thunderstorms	Total	Maximum depth on ground	Average speed	Prevailing direction	Speed	Direction	Date	Clear, 0-3	Partly cloudy, 4-7	Cloudy, 8-10		
	Ft.	Mb.	Mb.	°F.	°F.	F.	F.	°F.		°F.				F.	%	In.	In.	In.			In	In.	M.p.h.		M.p.h.							%
ILLINOIS																																
PEORIA	652	998.4	1021.3	50	32	40.8	1.1	64	14	23	28+	0	16	31	72	1.05	-1.09	0.88	4	1	T	T	10.7	N	38	SW	23	7	9	14	6.3	49
ROCKFORD	728	992.8	1020.7	48	30	38.8	1.7	64	30	20	24	0	21	30	74	0.84	-1.53	0.49	6	0	T	T	10.4	NNW	36*	SSW	20	7	8	15	6.6	
SPRINGFIELD	588	996.3	1020.5	52	34	43.0	1.7	64	30	25	24	0	14	33	71	1.91	-0.45	1.06	8	1	T	T	10.5	N	50	SW	23	10	4	16	6.5	50
INDIANA																																
EVANSVILLE	381	1004.4	1020.6	54	35	44.3	- 0.5	67	29	22	27+	0	12	36	75	1.56	-1.60	0.76	8	1	T	T	5.0	NW	26	NW	22	7	6	17	6.9	48
FORT WAYNE	791	988.6	1020.7	50	32	40.7	1.3	63	30	19	26	0	18	32	75	1.03	-1.52	0.56	7	0	T	T	8.6	NE	38	W	23	5	6	19	7.6	33
INDIANAPOLIS	793	989.7	1020.4	51	34	42.4	1.5	65	29	24	23	0	12	34	75	1.42	-1.67	0.90	7	0	0.2	T	8.6	NNE	36*	NW	22	6	5	19	7.4	51
SOUTH BEND	768	991.5	1020.2	48	32	40.1	1.0	62	29	24	23	0	18	32	76	1.37	-1.28	0.73	8	0	3.0	2	9.2	SSW	38*	W	23	5	3	22	7.5	
IOWA																																
BURLINGTON	694	994.2	1021.0	51	31	40.0	1.6	68	14	20	10	0	18	30	69	1.11	-0.77	1.02	5	1	T	T	9.4	SE	42	NW	23	8	8	14	6.2	62
DES MOINES	948	988.7	1020.8	49	32	40.5	2.6	66	13	20	24	0	17	31	71	0.80	-0.96	0.49	5	0	1.5	T	7.1	SSE	39	SW	20	4	9	17	7.2	42
DUBUQUE	1065	994.6		45	29	37.0	2.2	61	14	19	24	0	25			0.86	-1.73	0.52	4	0	0.4	T			44*	SW	20	6	3	21	7.5	
SIOUX CITY	1095	977.2	1019.7	51	31	40.8	5.2	71	20	18	8	0	18	30	69	0.13	-1.03	0.09	4	0	0.2	T	9.9	SSE	42	NW	23	6	9	15	6.6	54
WATERLOO	868	987.8	1020.7	48	28	37.8	2.6	62	14	15	9	0	24	29	74	0.22	-1.61	0.13	3	0	0.7	T	9.2	SSE	36*	NW	23	2	14	14	7.1	
KANSAS																																
CONCORDIA	1470	965.5	1019.8	53	32	42.7	0.7	69	13+	19	5	0	16	33	72	0.54	-0.44	0.35	7	0	2.1	1	11.2	SSE	34	NW	1	9	5	16	6.2	49
DODGE CITY	2594	930.1	1019.8	56	33	44.4	1.6	77	13	22	8	0	17	32	69	0.58	-0.06	0.37	6	0	4.3	1	10.4	SSW	34	N	11+	10	9	11	5.6	65
GOODLAND	3645	889.8	1019.3	55	27	40.7	2.7	72	13	14	18+	0	27	27	65	0.45	-0.04	0.35	3	0	5.3	3	11.2	WSW	31*	NNW	6	15	4	11	4.8	
TOPEKA	877	984.0	1020.4	55	33	44.0	1.4	73	13	20	9	0	13	35	75	1.04	-0.46	0.59	5	0	T	T	10.6	N	34	S	23	12	5	13	5.8	56
WICHITA	1321	970.2	1019.9	56	35	45.4	1.0	70	13	26	8	0	10	36	73	1.62	0.13	1.30	6	0	T	T	11.6	S	36	N	11	8	5	17	6.5	48
KENTUCKY																																
COVINGTON	869	987.5	1019.8	53	32	42.8	- 0.9	68	30	19	23	0	16	33	71	2.37	-0.64	1.22	8	0	0.8	T	7.4	ENE	23*	WNW	22+	6	2	22	7.7	
LEXINGTON	979	983.7	1020.2	52	36	44.1	- 0.6	65	30	26	23	0	11	36	76	3.92	0.63	1.95	10	0	T	0	9.0	ENE	24*	NW	22+	7	6	17	7.0	
LOUISVILLE	474	1000.3	1020.1	54	35	44.2	0.0	66	29	23	23	0	10	36	75	1.59	-1.61	0.74	11	0	T	0	7.6	N	29	N	22	8	5	17	7.0	37
LOUISIANA																																
ALEXANDRIA	92	1015.8	1020.5	66	41	53.4		82	11	31	23+	0	5	44	75	4.42		2.18	6	2	0.0	0	6.0	NNE				10	6	14	5.6	
BATON ROUGE	64	1016.7	1019.9	69	47	58.0	- 0.4	83	16	38	14	0	0	47	72	0.91	-3.18	0.82	3	0	0.0	0	7.7	NE				10	7	13	5.6	
BURRWOOD R	5		1019.4											55	76			4.12					13.7	NE								
LAKE CHARLES	14	1013.4	1019.9	69	48	58.3	- 1.3	79	16+	38	9	0	0	50	79	4.40	0.18	2.90	5	1	0.0	0	13.6	ENE	31	NNW	12	14	3	13	5.2	
NEW ORLEANS	3	1017.4	1019.6	68	48	57.9	- 1.6	81	16	37	5	0	0	49	73	1.96	-1.38	1.50	4	2	0.0	0	8.2	ENE	22*	S	17	11	6	13	5.2	
NEW ORLEANS AUDUBON	10	1012.7		69	53	60.6		80	16	46	5	0	0			2.75		1.34	7	0	0.0	0	4.3		15	NW	12	12	7	11	5.0	55
SHREVEPORT	252	1011.4	1019.3	66	45	55.2	0.0	83	11	32	4	0	1	44	72	3.52	-0.69	0.82	10	1	0.0	0	9.6	NW				11	6	13	5.7	55
MAINE																																
CARIBOU	624	994.5	1018.6	36	22	29.4	- 0.8	48	8	8	20	0	28	25	84	4.35	1.31	1.50	9	0	3.9	2	10.3	NW	35*	WNW	23	5	8	17	7.3	
PORTLAND	61	1014.9	1018.8	45	27	36.1	- 2.0	59	28	17	27+	0	25	28	74	4.25	0.08	1.70	10	0	1.3	1	8.2	NNW	34	N	15+	11	4	15	6.1	44
MARYLAND																																
BALTIMORE	146	1015.2	1019.7	51	32	41.5	- 4.0	61	30+	22	7	0	17	30	67	6.50	3.37	2.56	8	0	0.3	0	9.2	W	32	NW	22	8	6	16	6.2	48
BALTIMORE U	14			53	39	46.1	- 2.7	64	29	32	26+	0	3			6.14	3.04	2.43	8													
FREDERICK	294			51	32	41.2	- 3.0	62	30	22	26+	0	18			4.25	1.32	1.20	10		T	0										
MASSACHUSETTS																																
BLUE HILL OBS R	629	993.2	1017.3	46	32	39.0	- 3.0	63	30	22	19	0	18		71	4.65	0.12	1.35	10	0	3.4	3	14.2	NNW	49	NW	11+					50
BOSTON	15	1013.3	1018.1	48	35	41.7	- 3.2	62	30	27	19	0	10	31	67	3.80	-0.13	1.48	9	0	0.9	1	13.5	WNW	40	NE	3	10	4	16	6.2	52
NANTUCKET	43	1016.9	1017.4	49	38	43.4	- 2.0	60	22	27	20	0	3	37	77	7.44	3.39	3.11	13	1	T	0	14.9	NNW	50	NW	15	5	9	16	7.2	43
PITTSFIELD	1170			44	26	34.9	- 2.4	66	29	15	26	0	26			1.86	-2.05	0.66	10		2.6	T										
WORCESTER	986	980.7	1018.1	44	31	37.3	- 1.9	65	30	21	7	0	21	26	68	3.85	-0.41	1.57	10	0	3.6	3	8.7	NW	35*	ENE	3	10	4	16	6.0	
MICHIGAN																																
ALPENA	689	994.8		44	25	34.3	- 1.3	59	30	11	18	0	23			0.78	-1.59	0.34	8	0	5.4	4	6.5	W#	25	NE	4	6	8	16	7.0	51
DETROIT	619	993.2	1020.7	47	34	40.3	- 0.1	58	30	25	27	0	14	32	74	1.30	-0.91	0.71	9	0	0.2	T	8.8	N	42	NW	23	5	5	20	7.5	39
DETROIT M WAYNE CO	633	996.1	1020.8	48	30	39.0	- 0.4	61	30	20	27+	0	18	32	78	1.34	-0.93	0.57	10	0	T	T	7.8	ENE				4	8	18	7.5	
DETROIT WILLOW RUN	711	991.5	1020.6	47	31	38.9	- 1.1	59	29	17	26	0	16	31	77	1.26	-0.99	0.48	9	0	T	T	10.5	NNE	40	WNW	23	4	8	18	7.7	
ESCANABA U	594	996.9		41	31	35.8	1.6	47	30+	21	23	0	19			0.72	-1.63	0.35	6	0	3.8	2	10.5		38	S	20	4	7	19	8.0	24

See footnotes at end of table

CLIMATOLOGICAL DATA

ENGLISH UNITS

State and Station	Elevation (ground)	Pressure		Temperature											Average relative humidity	Precipitation							Wind					No. of days (sunrise to sunset)			Sky cover tenths (sunrise to sunset)	Possible sunshine
												No of days							No of days		Snow, Sleet				Fastest mile							
		Station O	Sea level	Average maximum	Average minimum	Average	Departure from normal	Highest	Date	Lowest	Date	Max. 90 F. or above	Min. 32 F. or below	Average dew point		Total	Departure from normal	Greatest in 24 hours	01 inch or more	With thunderstorms	Total	Maximum depth on ground	Average speed	Prevailing direction	Speed	Direction	Date	Clear, 0-3	Partly cloudy, 4-7	Cloudy, 8-10		
	Ft	Mb	Mb.	F.	F.	F.	F.	F.		F.				F.	%	In.	In.	In			In.	In	M p.h		M.p h.							%
MICHIGAN																																
FLINT	766	992.9	1021.5	46	28	37.0	- 0.9	57	30	19	6	0	22	30	78	0.66	-1.52	0.33	7	0	0.4	T	7.6	NE	25*	NNW	10	3	7	20	7.7	
GRAND RAPIDS	681	994.8	1020.9	48	31	39.4	1.2	62	30	22	23	0	19	30	73	0.63	-1.86	0.24	8	0	0.8	T	8.9	E	29	SW	20	4	5	21	7.8	31
LANSING	1082	987.6	1020.6	47	29	37.9	0.0	59	30	21	19	0	21	29	73	0.51	-1.70	0.25	8	0	0.6	T	11.2	SSE	42	W	23+	4	8	18	7.5	52
MARQUETTE U	677	991.5		42	31	36.3	2.5	57	30	22	23	0	21			1.16	-2.12	0.30	12	0	4.5	1	8.6	S#	37	SW	26	1	5	24	8.8	32
MUSKEGON	627	996.9	1020.5	48	32	39.9	1.3	58	30+	23	23	0	18	32	77	1.11	-1.83	0.52	8	0	7.2	1	8.8	SE	32*	SSW	20	4	4	22	8.0	
SAULT STE MARIE	721	997.4	1020.2	40	28	34.1	1.8	47	10	16	18	0	25	28	79	0.87	-2.46	0.24	10	0	5.1	3	8.3	ENE	23*	WNW	22	1	8	21	8.4	36
MINNESOTA																																
DULUTH	1426	976.3	1018.8	40	28	33.8	7.0	52	30	19	22+	0	22	25	72	0.28	-1.50	0.12	6	0	1.8	1	11.7	SSW	38	W	21	2	5	23	8.5	33
INTERNATIONAL FALLS	1179	975.6	1018.0	38	24	31.4	7.6	53	26	9	5	0	25	25	80	0.49	-0.97	0.11	11	0	3.6	1	8.0	S	29*	W	21	4	5	21	8.0	
MINNEAPOLIS	1822	985.4	1019.9	43	27	35.0	4.5	58	20	4	24	0	23	27	72	0.52	-0.88	0.39	5	0	5.6	6	11.1	S	36	NNW	4	3	7	20	8.0	37
ROCHESTER	1297	971.1	1020.3	44	28	36.2	4.2	59	30	20	24	0	25	28	77	0.18	-1.39	0.16	3	0	0.2	T	13.0	S				3	6	21	7.8	
ST CLOUD	1034	980.6	1019.7	44	27	35.1	5.6	64	20	14	5	0	26	21	75	0.44	-0.89	0.24	5	0	4.2	4						3	5	22	8.0	
MISSISSIPPI																																
JACKSON	305	1007.6	1019.9	64	43	53.6	- 1.3	78	16+	30	10	0	2	43	71	2.88	-0.82	0.74	12	1	0.0	0	7.2	NW	34	W	11	9	7	14	6.0	51
MERIDIAN	292	1006.3	1020.4	64	40	51.8	- 2.3	78	16	28	10	0	7	43	77	3.00	-0.10	0.93	9	2	0.0	0	6.6	N	21*	N	22+	10	3	17	6.1	
VICKSBURG U	234	1010.5		63	46	54.4	- 1.8	77	11	38	9+	0	0			3.67	-0.76	1.30	7	1	0.0	0	8.2		30	W	11	11	3	16	5.7	57
MISSOURI																																
COLUMBIA	778	990.5	1019.7	54	35	44.7	1.4	69	14	21	9	0	6	33	69	0.74	-1.53	0.55	4	0	T	T	9.7	SSE	29	N	4	10	5	15	6.1	49
KANSAS CITY	742	984.4	1019.9	56	37	46.5	2.4	71	13	26	5	0	7	34	66	1.24	-0.56	0.69	6	0	T	T	6.0	N	32	SW	20	9	8	13	6.0	57
ST JOSEPH	809	984.9		54	33	43.3	1.9	69	13	22	24	0	13			0.76	-0.92	0.51	4	0	T	T	9.0	SSE	31*	SSW	20	10	8	12	5.5	
ST LOUIS	535	999.7	1020.8	54	36	44.9	0.8	70	15	27	10	0	11	31	62	0.71	-1.86	0.48	8	1	0.0	0	8.2	NW	32	W	23	10	3	17	6.2	41
ST LOUIS RFC	465			54	39	46.7	0.9	70	15	31	5	0	1			0.92	-1.77	0.70	6		0.0	0										
SPRINGFIELD	1265	971.9	1020.3	55	34	44.4	- 0.6	68	14+	21	9+	0	12	35	76	1.03	-1.73	0.40	10	2	1.2	1	8.5	SSE	36	SE	26	9	6	15	6.3	55
MONTANA																																
BILLINGS	3567	891.0	1016.6	51	32	41.4	5.3	69	3	17	24+	0	17	26	59	0.86	0.23	0.61	6	0	8.2	4	11.9	WSW	43	W	20	4	11	15	7.2	55
GLASGOW	2277	940.4		48	30	38.9	10.7	64	8	18	24+	0	22	28	69	0.43	-0.04	0.37	4	0	T	0						4	7	19	7.8	
GREAT FALLS	3662	887.2	1016.7	50	31	40.3	5.0	72	3	15	16	0	17	23	53	0.36	-0.39	0.32	3	0	2.1	2	15.0	SW	61	SW	20	3	5	22	7.7	49
HAVRE	2582	924.8		50	28	38.9	8.9	68	3	12	29	0	21			0.09	-0.41	0.08	2	0	T	0	10.0	SW#	70	SW	20	4	10	16	7.3	45
HELENA	3893	873.7	1018.9	47	26	36.9	5.3	61	8+	12	24	0	23	25	65	0.57	0.00	0.21	7	0	1.2	1	7.7	WNW	56	SW	19	4	6	20	7.6	58
KALISPELL	2965	912.6		43	29	36.1	7.1	52	20+	13	24	0	19			1.00	-0.43	0.29	11	0	1.5	1	5.4					0	4	26	9.1	
MILES CITY	2626			49	29	39.1		64	5+	18	24	0	24	30	74	0.43		0.14	4	0	1.4	1	9.3		40	SW	19	3	7	20	7.6	
MISSOULA	3190	903.8	1020.9	41	27	33.9	3.4	54	26	12	24	0	24	29	84	0.61	-0.29	0.20	8	0	0.8	T	5.4	NW	26	NW	26	1	3	26	9.0	26
NEBRASKA																																
GRAND ISLAND	1841	852.9		49	27	38.3	0.1	68	13	15	8	0	24	29	74	0.11	-0.65	0.10	2	0	0.8	1	10.3	S				9	6	15	6.5	
LINCOLN U	1150			51	34	42.3	1.5	70	13	22	8	0	13			0.69	-0.57	0.55	5	0	0.3	T	9.8	S#	31	S	23	7	5	18	6.7	49
NORFOLK	1544	962.1		51	29	39.9	4.0	74	20	11	25	0	19			0.09	-0.82	0.07	2	0	0.2	T						9	5	16	6.4	
NORTH PLATTE	2779		1018.6	54	26	39.7	4.2	71	9	15	18+	0	25	25	61	0.09	-0.41	0.09	2	0	1.5	2	10.6	SSE	37	N	1	10	7	13	6.0	59
OMAHA	978	979.0	1020.0	51	34	42.0	3.1	68	13	22	8	0	15	33	73	0.68	-0.58	0.36	6	0	0.8	T	11.2	SSE	37	NW	23	7	7	16	6.6	54
OMAHA N OMAHA AP	1323	970.6		49	33	40.8	3.9	67	13	21	8	0	15			0.71	-0.60	0.41	7	0	0.5	1						5	12	13	6.6	
SCOTTSBLUFF	3950	880.0	1018.5	55	27	40.8	5.5	71	5	16	19	0	24	26	63	0.20	-0.26	0.09	6	0	0.6	T	10.1	NW	46*	WNW	20	10	6	14	6.0	
VALENTINE	2587	925.4		54	25	39.5	5.9	75	13	8	18	0	25			0.01	-0.48	0.01	1	0	T	T	10.7	SW#	42	NW	20	10	9	11	5.4	64
NEVADA																																
ELKO	5075	848.0	1022.2	52	19	35.4	1.2	68	4+	8	30	0	29	22	62	0.36	-0.52	0.13	7	0	1.9	1	5.2	SW	21*	W	22+	7	8	15	6.4	
ELY	6257	794.1	1020.7	55	21	38.0	4.3	69	4	7	19+	0	29	19	54	0.28	-0.31	0.18	2	0	1.1	1	8.8	SSW	29	S	28	9	9	12	5.9	78
LAS VEGAS	2162	950.9	1017.5	70	45	57.3	4.3	82	1	38	19	0	0	27	34	T	-0.31	T	0	0	0.0	0	7.5	SW	29*	NW	18	14	9	7	4.0	83
RENO	4404	865.6	1021.7	60	22	40.8	1.5	73	4+	9	30	0	30	27	63	0.02	-0.55	0.02	2	0	T	T	4.9	S	38	S	26	7	9	14	6.1	72
WINNEMUCCA	4299	870.6		55	23	39.3	3.5	72	4+	11	30	0	29	27	60	0.97	0.17	0.43	7	0	1.3	T	6.2	S	35	W	26	8	8	14	6.2	94
NEW HAMPSHIRE																																
CONCORD	339	1007.8	1018.9	46	27	36.1	- 1.5	64	30	13	26	0	26	26	72	2.65	-1.07	1.12	9	0	0.4	T	5.6	NW	31	NW	11	9	6	15	6.0	49
MT WASHINGTON OBS	6262	801.9		28	14	20.8	0.5	42	29+	0	23	0	30		70	8.15	1.54	2.55	14	0	36.9	6	24.5	NW#	124Y	NW	23	11	6	13	5.6	53
NEW JERSEY																																
ATLANTIC CITY	58	1016.6	1019.3	53	35	43.7	- 3.0	64	30	23	7	0	11	34	71	4.88	1.22	1.39	8	0	0.0	0	9.8	NW	35*	S	10+	9	3	18	6.0	70

See footnotes at end of table

CLIMATOLOGICAL DATA

ENGLISH UNITS

State and Station	Elevation (ground)	Pressure		Temperature											Average relative humidity	Precipitation							Wind					No. of days (sunrise to sunset)			Sky cover, tenths (sunrise to sunset)	Possible sunshine
												No. of days							No. of days		Snow, Sleet				Fastest mile							
		Station ⌀	Sea level	Average maximum	Average minimum	Average	Departure from normal	Highest	Date	Lowest	Date	Max. 90 F. or above	Min. 32 F. or below	Average dew point		Total	Departure from normal	Greatest in 24 hours	.01 inch or more	With thunderstorms	Total	Maximum depth on ground	Average speed	Prevailing direction	Speed	Direction	Date	Clear, 0-3	Partly cloudy, 4-7	Cloudy, 8-10		
	Ft.	Mb.	Mb.	F.	F.	F.	F.	F.		F.				F.	%	In.	In.	In.			In.	In.	M.p.h.		M.p.h.							%
NEW JERSEY																																
ATLANTIC CITY U	10			52	38	44.6	- 3.7	61	10	27	7	0	5			4.46	0.67	1.53	8				15.4		58*	NE	3					
NEWARK	11	1018.3	1019.5	50	37	43.5	- 1.9	62	30	29	7	0	3	29	60	4.39	1.02	1.77	9	0	0.3	T	10.2	NE	35*	NNW	11	7	12	11	5.8	
TRENTON U	56	1011.5		50	36	42.9	- 2.9	62	30	29	19+	0	6			4.75	1.59	1.34	9	0	0.2	T	9.3	N	36	E	10	6	12	12	5.9	57
NEW MEXICO																																
ALBUQUERQUE	5310	850.7	1018.8	58	35	46.9	2.8	70	10+	25	19	0	9	29	54	0.61	0.23	0.38	7	1	T	T	6.9	N	34	NW	21	18	2	10	3.6	77
CLAYTON	4969	846.9		59	31	44.7	3.0	76	4	13	18	0	17			0.32	-0.01	0.11	4	1	1.2	1						14	5	11	4.6	
RATON	6379	807.0		57	24	40.4	2.9	73	4	7	17	0	27			0.73	0.34	0.48	5	1	5.7	5						13	7	10	4.7	
ROSWELL	3619	895.0		64	28	46.0	1.1	79	10	13	20	0	23	30	54	0.62	0.28	0.48	3	0	0.6	1	7.6	SSE	42	NW	15	14	3	13	4.7	63
SILVER CITY	5373	871.3		65	36	50.5		73	11+	27	20	0	6			0.98		0.87	3	1	0.0	0						17	4	9	3.6	
NEW YORK																																
ALBANY	277	1016.2	1020.0	43	27	35.0	- 4.1	62	10	14	19	0	22	27	74	2.11	-0.59	0.73	9	0	1.6	1	6.8	N	29	NW	22	7	5	18	6.6	51
BINGHAMTON	1590	958.7	1019.3	41	29	34.8	- 2.7	57	30	20	26+	0	25	28	79	1.89	-0.62	0.64	9	1	6.9	6	8.4	NNW	29	W	22	6	4	20	7.4	39
BUFFALO	705	990.8	1021.0	45	29	37.1	- 1.5	63	29	17	19	0	25	28	74	1.78	-1.82	1.12	10	0	2.5	2	9.0	ENE	29	W	22+	4	5	21	7.6	44
NEW YORK U	132	1007.1		49	37	43.2	- 3.8	62	30	28	19	0	4	30	63	3.94	0.55	1.61	7	0	T	0	9.3	N#	38	NE	3	10	11	9	4.9	57
NEW YORK LA GUARDIA	19	1017.6	1019.3	49	38	43.6	- 3.8	61	10	31	19	0	3	30	61	3.96	0.37	1.07	9	1	1.1	T	10.4	NNE	36	NE	3	7	11	12	5.9	
ROCHESTER	543	1001.4	1021.1	45	29	36.9	- 3.2	61	30+	15	19	0	24	29	76	1.99	-0.52	0.78	10	0	6.0	6	8.6	SSW	35	NE	10	5	8	17	7.2	41
SCHENECTADY	217			44	29	36.4	- 2.4	56	30+	16	19	0	20			2.39	-0.29	1.10	8		0.8	1						12	9	9	4.7	
SYRACUSE	417	998.0	1020.4	43	28	35.5	- 4.7	55	30+	14	19	0	24	28	74	2.22	-0.68	0.79	10	0	11.0	5	9.6	ESE	50	W	22	7	6	17	7.1	41
NORTH CAROLINA																																
ASHEVILLE U	2203	938.7		56	36	46.0	- 0.5	66	16	26	27+	0	8			2.40	0.18	1.54	10	0	0.3	T	8.2	NW#	34	NW	10	8	5	17	6.6	45
CAPE HATTERAS R	7	1015.9	1016.5	60	47	53.6	- 2.6	71	9	33	24	0	0	47	77	14.63	10.54	4.02	15	2	0.0	0	13.6	NNE	48	SE	9	6	7	17	6.8	
CHARLOTTE	735	990.2	1018.9	58	38	48.0	- 2.9	68	18+	27	23	0	7	37	68	5.33	2.80	2.79	10	0	T	T	9.4	NNE	27	SW	10	10	7	13	5.8	50
GREENSBORO	891	987.5	1019.2	56	37	46.8	- 1.1	68	15	26	7	0	8	37	72	6.33	3.65	3.32	13	0	T	0	10.3	NNE	34	NE	27	9	3	18	6.4	50
RALEIGH	433	1004.4	1018.5	58	38	47.7	- 2.3	67	15+	27	7	0	8	39	74	7.19	4.42	3.82	11	0	1.3	1	10.7	NNE	30*	N	26	7	7	16	6.3	41
WILMINGTON	30	1014.6	1017.5	62	43	52.7	- 2.7	76	21+	31	7	0	1	45	77	5.01	1.92	2.84	13	2	T	0	13.1	N	59	N	26	7	7	16	6.7	47
WINSTON SALEM	967	983.4	1019.3	56	38	47.3	- 1.6	69	15	29	7	0	6	36	67	5.25	2.47	2.92	12	0	T	0	12.2	NE	46*	NW	18+	9	7	14	6.2	
NORTH DAKOTA																																
BISMARCK	1647	955.5	1017.6	46	25	35.5	7.1	65	3	12	24+	0	26	25	69	0.30	-0.29	0.23	5	0	0.4	T	8.2	WNW	38	NW	21	5	5	20	7.5	38
DEVILS LAKE U	1471	962.3		40	24	31.9	6.6	56	26	11	22	0	29			0.90	0.22	0.67	4	0	2.0	1	8.3	S#	37	NW	20	5	5	20	7.5	45
FARGO	900	982.6	1017.9	43	27	35.0	7.4	59	20	9	22	0	22	29	81	0.54	-0.30	0.29	5	0	3.1	3	11.1	W	37	SE	8	5	3	22	8.0	38
WILLISTON U	1899	947.2		46	27	36.1	7.5	66	3	14	24	0	25			0.38	-0.20	0.28	5	0	2.4	1	9.7	SSE	47	NW	20	4	5	21	7.9	41
OHIO																																
AKRON	1209	981.4	1020.3	48	34	40.7	0.9	66	30	24	26+	0	12	31	72	2.11	-0.14	1.59	10	0	T	0	8.5	E	29*	WNW	24	6	5	19	7.3	
CINCINNATI OBS	761			52	37	44.3	- 0.3	65	29	28	27+	0	6			2.13	-0.82	1.26	9	0	0.4	T	6.2		25	W	22					38
CINCINNATI U	553	996.6		54	39	46.8	0.7	69	30	30	23	0	1			2.16	-0.90	1.27	7		0.5											
CLEVELAND	777	991.9	1020.2	50	35	42.4	3.0	64	30	21	26	0	10	32	71	2.77	0.16	1.96	9	0	T	0	8.7	SSE	38	N	10	4	4	22	7.8	30
COLUMBUS	812	989.8	1020.5	49	33	40.8	- 1.4	66	30	20	26+	0	15	32	75	2.94	0.44	1.39	10	0	T	0	7.5	ENE	31	N	10	5	6	19	7.6	33
COLUMBUS U	724			50	38	43.9	0.6	65	30	27	23	0	3			3.15	0.91	1.73	10	0	T	0										
DAYTON	997	987.1	1020.3	49	33	41.2	- 0.6	65	30	23	23	0	14	33	75	2.56	-0.11	1.50	9	0	T	0	9.3	ENE	31	NW	10	4	6	20	7.5	37
MANSFIELD	1296			47	33	39.9	0.5	66	30	23	23	0	16			2.42	-0.27	1.78	8	0	T	0						4	4	22	7.7	
SANDUSKY U	606	998.0		48	36	42.0	- 0.2	58	30+	26	23	0	6			2.98	0.71	1.96	9	0	T	T	8.0		52	NW	24	8	5	17	6.6	50
TOLEDO	676	994.6	1020.6	48	29	38.3	- 0.3	60	30	18	27+	0	20	32	80	1.70	-0.34	0.88	8	0	T	0	6.9	WSW	34	W	23	5	4	21	7.8	37
YOUNGSTOWN	1178	976.6	1020.3	46	32	39.0	- 1.3	63	30	19	26	0	16	29	72	2.38	-0.43	1.71	11	0	0.3	T	9.2	ESE	29*	WSW	22	4	5	21	7.7	
OKLAHOMA																																
OKLAHOMA CITY	1280	976.1	1020.3	59	40	49.4	1.5	73	6	31	20+	0	4	40	73	1.34	-0.22	0.72	7	3	T	T	11.7	SSE	37	N	16+	10	3	17	6.2	54
TULSA	676	995.2	1020.1	60	40	49.8	0.7	72	13	29	9	0	4	39	71	2.13	-0.15	1.07	6	1	T	T	10.2	SSE	32	SW	14	10	5	15	5.9	52
OREGON																																
ASTORIA	8	1015.9	1016.5	55	42	48.8	2.5	69	1	31	23	0	1	45	87	14.21	3.01	2.61	25	3	0.0	0	9.9	SSE	46*	SSW	25	2	5	23	8.5	
BURNS U	4151	875.0		49	27	37.9	1.8	70	2	9	29	0	26	30	74	1.23	0.07	0.47	11	0	1.3	1						2	9	19	7.6	
EUGENE	361	1005.8		55	40	47.8	2.3	67	7	28	29	0	4			6.34	0.72	2.55	18	0	0.0	0	7.9		37*	S	25	0	8	22	8.7	
MEACHAM	4050			42	30	36.1	1.7	64	4	15	29	0	20			4.13	-0.02	0.83	18	0	9.1	3						1	5	24	8.5	
MEDFORD	1298	973.2	1021.6	53	35	44.0	0.6	70	2	24	29	0	7	39	87	4.37	1.77	1.20	17	0	0.0	0	3.0	N	25*	SSE	25	1	9	20	8.1	
PENDLETON	1482	964.8	1019.3	53	38	45.2	4.4	65	19	25	29	0	8	35	70	1.38	-0.02	0.38	14	0	T	0	8.5	SSE	32*	S	30	2	6	22	8.5	

See footnotes at end of table

CLIMATOLOGICAL DATA

ENGLISH UNITS

State and Station	Elevation (ground)	Pressure: Station Ø	Pressure: Sea level	Temperature: Average maximum	Temperature: Average minimum	Temperature: Average	Temperature: Departure from normal	Temperature: Highest	Temperature: Date	Temperature: Lowest	Temperature: Date	Temperature: No. of days: Max. 90 F. or above	Temperature: No. of days: Min. 32 F. or below	Average dew point	Average relative humidity	Precipitation: Total	Precipitation: Departure from normal	Precipitation: Greatest in 24 hours	Precipitation: No. of days: .01 inch or more	Precipitation: No. of days: With thunderstorms	Precipitation: Snow, Sleet: Total	Precipitation: Snow, Sleet: Maximum depth on ground	Wind: Average speed	Wind: Prevailing direction	Wind: Fastest mile: Speed	Wind: Fastest mile: Direction	Wind: Fastest mile: Date	No. of days (sunrise to sunset): Clear, 0-3	No. of days (sunrise to sunset): Partly cloudy, 4-7	No. of days (sunrise to sunset): Cloudy, 8-10	Sky cover, tenths (sunrise to sunset)	Possible sunshine
	Ft.	Mb.	Mb.	F.	F.	F.	F.	F.		F.				F.	%	In.	In.	In.			In.	In.	M.p.h.		M.p.h.							%
OREGON																																
PORTLAND	21	1012.5	1018.2	54	41	47.6	2.5	67	2+	31	29+	0	3	42	83	9.32	3.99	1.84	23	0	0.0	0	9.5	ESE	38	S	24	3	3	24	8.4	20
PORTLAND U	30			56	44	50.0	2.8	67	2	32	29	0	1			10.63	4.59	2.37	19	0	0.0	0										
ROSEBURG	505	1001.1		58	41	49.5	3.4	69	4	27	28	0	3			5.41	0.95	1.57	20	0	0.0	0	4.0	S#	26	S	25	0	9	21	8.5	31
SALEM	195	1011.5	1018.9	54	40	46.7	1.5	67	1	29	29	0	3	43	86	8.54	2.83	2.13	23	1	0.0	0	9.9	S	33*	S	25	2	5	23	8.6	
SEXTON SUMMIT R	3836	885.9		46	36	41.4	- 1.4	71	2	24	29	0	10			6.87	2.49	1.66	19	0	6.4	2	13.8	S				5	3	22	7.8	
PACIFIC AREA																																
CANTON ISLAND	8	1008.8	1009.3	88	78	82.7	- 0.9	91	28	75	17+	3	0	71	70	0.15	-1.46	0.14	2	0	0.0	0	13.2	ENE	23*	ENE	30+	4	12	14	6.8	
ENIWETOK	13	1008.5	1009.1	87	77	82.1	- 0.5	89	5+	73	6	0	0			7.23	0.93	1.72	22	1	0.0	0	14.6									
TAGUAC GUAM R	361			85	75	79.9	0.6	89	17	70	17	0	0			13.09	2.80		28	2	0.0	0	10.4		80	NE	11					
JOHNSTON	7	1013.2	1013.9	81	77	79.1	- 0.5	84	8	73	21	0	0			1.76	-0.30	0.92	14	0	0.0	0	18.9		39	E	26	8	17	5	5.3	75
KOROR R	94	1005.4	1009.1	89	77	82.7	1.5	91	16+	73	4	14	0	76	84	6.84	-6.09	1.58	23	7	0.0	0	7.5	NW	24	SE	20	0	1	29	9.6	57
PONAPE R	123	1003.1	1007.8	86	74	80.0	0.1	90	14	71	30+	1	0	75	86	28.39	11.54	3.50	29	12	0.0	0	5.0	ENE	23	E	22+	0	2	28	9.6	51
TRUK MOEN ISLAND	5	1007.6	1007.8	86	76	80.7	- 0.1	88	15+	71	28	0	0	75	83	26.12	13.76	10.41	25	4	0.0	0	8.0	NE	45	N	8	0	3	27	9.3	28
YAP R	55	1005.8	1007.8	87	76	81.6	0.1	90	14	74	16	1	0	76	84	7.41	-3.74	1.77	25	0	0.0	0	9.5	NE	30	W	13	0	0	30	1.0	58
PENNSYLVANIA																																
ALLENTOWN	376	1005.4	1020.1	49	30	39.7	- 2.2	62	30+	22	27	0	23	30	71	4.13	0.80	1.58	10	0	3.5	1	9.8	NW	36*	NW	24	7	9	14	6.1	
ERIE	732	993.6	1020.3	47	34	40.4	- 0.8	63	29	24	26	0	11	31	71	2.13	-1.23	1.18	11	0	0.3	T	12.9	S	37*	WNW	24	5	6	19	7.6	
HARRISBURG	335	1006.1	1020.0	50	32	41.1	- 2.8	61	10	22	27	0	15	32	73	4.10	1.15	1.30	11	0	4.5	4	6.9	NNW	34	W	24	7	8	15	6.6	44
PHILADELPHIA	5	1014.9	1019.3	51	33	42.1	- 2.2	63	10	20	7	0	15	29	61	4.60	1.20	1.35	8	0	T	0	10.0	ENE	30	NW	22	7	9	14	6.4	54
PHILADELPHIA U	35			50	38	43.9	- 3.9	61	8	30	19	0	3			5.18		1.45	7													
PITTSBURGH	1151	989.8	1020.8	49	33	41.1	0.3	61	30	21	26	0	16	30	68	1.53	-0.71	0.87	9	0	T	0	7.9	ENE	28*	WNW	22	5	6	19	7.4	40
PITTSBURGH U	749			51	37	43.8	- 0.7	63	30+	27	27+	0	9			1.25	-1.09	0.70	7		T											35
READING U	266	1007.5	1019.6	51	35	42.8	- 2.3	63	30+	27	7	0	7			4.93	1.53	2.20	11	1	1.2	1	9.5	NW#	52	E	9	6	10	14	6.3	45
SCRANTON	940	985.4	1020.4	44	30	36.6	- 3.0	57	28	20	26	0	21	27	69	2.80	-0.14	0.87	9	0	4.6	2	7.0	NNW	31	NW	24	6	7	17	7.0	40
WILLIAMSPORT	527	1001.0	1020.6	48	30	38.8	- 2.3	58	10	21	27	0	21	29	72	2.47	-0.98	1.10	10	0	3.1	2	7.4	W	32*	ESE	10	6	6	18	6.9	
RHODE ISLAND																																
BLOCK ISLAND	110	1013.2	1017.6	49	38	43.3	- 2.4	59	10	29	20	0	6			7.49	3.78	2.55	9	0	0.3	T						8	12	10	5.8	
PROVIDENCE	55	1012.5	1018.5	49	33	40.9	- 2.1	60	10	25	30	0	16	31	69	4.49	0.38	1.46	9	0	1.7	2	10.4	NNW	33*	NNW	15	9	6	15	6.0	54
SOUTH CAROLINA																																
CHARLESTON	41	1016.0	1018.0	64	43	53.5	- 2.4	80	21	31	23	0	4	45	77	2.01	-0.08	0.57	11	0	0.0	0	10.6	N	55Y	SW	22	9	6	15	6.2	54
CHARLESTON U	9			63	48	55.6	- 3.0	75	21	39	26+	0	0			2.17	0.25	1.08	10		0.0	0	12.7		42	SW	22					
COLUMBIA	217	1005.8	1018.9	64	41	52.3	- 1.4	77	21	29	7	0	5	41	67	4.53	2.17	2.17	9	1	0.0	0	9.3	NNE	29*	SW	9	9	5	16	6.1	50
FLORENCE	146	1012.5	1018.1	62	42	52.2	- 2.4	77	21	32	7	0	1	41	69	3.37	1.06	1.52	10	1	0.0	0	10.6	NNE	27*	WNW	22	8	7	15	6.2	
GNVLE-SPARTANBURG	957	981.4	1018.8	61	42	51.4		72	11	31	7+	0	4	37	62	4.47		2.84	7	0	0.0	0	8.8	NE	28	N	27	9	10	11	5.6	54
SOUTH DAKOTA																																
HURON	1282	970.0	1018.3	50	24	36.9	4.7	77	20	14	18	0	25	26	67	0.08	-0.60	0.07	2	0	T	T	11.6	SSE	41	NW	20	10	4	16	6.5	51
RAPID CITY	3165	901.7	1017.8	53	28	40.6	5.5	70	20	16	19	0	22	25	61	0.08	-0.33	0.03	4	0	0.4	T	9.9	NNW	37	N	20	9	6	15	6.3	61
SIOUX FALLS	1420	966.1	1019.0	49	28	38.6	6.0	74	20	15	8	0	22	30	73	0.16	-0.84	0.14	2	0	T	T	9.8	SSW	27*	W	6	4	11	15	6.7	
TENNESSEE																																
BRISTOL	1507	964.0	1019.4	54	35	44.7	- 0.7	63	30+	23	26	0	11	35	73	2.77	0.26	1.19	12	0	0.1	T	5.5	ENE	28*	WSW	22	6	6	18	7.1	
CHATTANOOGA	670	991.8	1019.9	58	39	48.6	- 0.3	70	29	26	6	0	7	39	72	6.06	2.41	3.01	11	1	0.0	0	7.5	NNE	33	NW	22	11	4	15	6.4	48
KNOXVILLE	950	983.9	1019.9	56	37	46.4	- 1.8	68	29	26	27+	0	9	36	69	4.60	1.36	1.36	12	0	T	T	8.2	NE	36	SW	10	5	6	19	7.2	39
MEMPHIS	263	1005.6	1020.6	60	41	50.2	- 0.4	76	11	30	10	0	2	40	70	2.31	-2.07	0.98	10	1	0.0	0	8.9	E	26	N	12	8	5	17	6.5	53
MEMPHIS U	271			58	43	50.8	- 1.0	74	11	33	10+	0	0			1.33	-2.84	0.41	9		0.0	0										
NASHVILLE	577	999.6	1019.8	58	38	47.9	- 0.6	69	30+	25	6	0	7	39	75	3.37	0.09	1.93	9	1	T	T	6.6	S	25*	NW	9	8	5	17	6.9	50
OAK RIDGE	905	985.8		56	36	46.1	- 1.2	67	29	26	27+	0	11			5.44	1.67	1.93	11	0	T	T	4.5		29Y		22	6	7	17	7.1	
TEXAS																																
ABILENE	1759	957.1	1019.0	66	44	55.0	2.0	85	10	31	19	0	2	42	68	1.06	-0.05	0.53	5	0	T	T	8.4	S	28	S	15	11	3	16	6.0	55
AMARILLO	3607	891.0	1018.2	60	36	47.8	2.3	80	4	26	20	0	8	33	63	0.53	-0.13	0.51	2	0	7.6	4	12.6	SSW	34	NE	6	10	9	11	5.2	65
AUSTIN	597	997.5	1019.7	69	50	59.6	0.8	87	11	38	9	0	0	46	67	0.92	-1.20	0.39	5	1	0.0	0	8.8	S	26	S	15	12	3	15	5.4	51
BROWNSVILLE	16	1015.7	1018.3	79	57	68.1	0.5	87	27+	45	21+	0	0	57	71	0.84	-0.48	0.73	4	0	0.0	0	11.6	NW	27	SE	15	13	8	9	4.5	53
CORPUS CHRISTI	43	1017.7	1019.0	76	54	64.7	0.6	89	11	40	21	0	0	54	71	1.13	-0.59	0.75	4	2	0.0	0	11.8	NNE	31	SE	15	12	8	10	4.6	59
DALLAS	481	1001.4	1020.2	65	47	55.7	0.8	82	10	36	4	0	0	45	71	5.72	3.02	3.23	9	5	0.0	0	10.7	SSE	28	S	15	10	4	16	6.0	57

See footnotes at end of table

CLIMATOLOGICAL DATA

ENGLISH UNITS

State and Station	Elevation (ground)	Pressure		Temperature											Average relative humidity	Precipitation							Wind					No. of days (sunrise to sunset)			Sky cover, tenths (sunrise to sunset)	Possible sunshine
												No. of days							No. of days		Snow, Sleet				Fastest mile							
		Station Ø	Sea level	Average maximum	Average minimum	Average	Departure from normal	Highest	Date	Lowest	Date	Max. 90 F. or above	Min. 32 F. or below	Average dew point		Total	Departure from normal	Greatest in 24 hours	01 inch or more	With thunderstorms	Total	Maximum depth on ground	Average speed	Prevailing direction	Speed	Direction	Date	Clear, 0-3	Partly cloudy, 4-7	Cloudy, 8-10		
	Ft.	Mb.	Mb.	F.	F.	F.	F.	F.		F.				F.	%	In.	In.	In			In	In.	M.p.h		M.p.h.							%
TEXAS																																
DEL RIO U	957			72	52	61.9	2.5	86	11	37	21	0	0			0.26	-0.36	0.19	3		0.0	0										
EL PASO	3918	888.0	1016.7	68	40	53.7	1.5	78	14	25	20	0	4	31	47	0.21	-0.12	0.09	4	1	0.0	0	6.0	NE	38	NW	15	14	5	11	4.3	77
FORT WORTH	544	999.0	1020.2	65	46	55.5	0.7	83	10	35	4	0	0	45	72	3.93	1.47	1.92	7	2	0.0	0	11.3	S	30*	ESE	26	9	4	17	6.0	
GALVESTON U	7			68	58	62.7	- 0.3	76	11	49	21+	0	0			3.59	0.03	1.90	6	0	0.0	0	12.4		39	NE	27					73
GALVESTON	5	1017.3	1019.8	68	57	62.3	0.4	78	11	48	21+	0	0	50	65	3.28	-0.56	1.90	6	1	0.0	0	11.3	N				13	6	11	4.7	
HOUSTON U	41			70	55	62.6	1.0	83	11	47	9+	0	0			5.35	1.31	3.12	6		0.0	0										
HOUSTON	50	1016.7	1019.4	70	50	60.1	- 1.2	84	11	37	9	0	0	50	74	5.68	1.82	2.75	7	2	0.0	0	10.2	NNW				13	5	12	5.2	61
LAREDO	500	1003.1	1018.5	78	55	66.7	1.9	92	11	44	21	1	0	49	60	0.89	0.02	0.71	5	2	0.0	0	10.1	ENE	29*	NNE	17+	13	7	10	4.8	
LUBBOCK	3243	905.7	1018.6	63	38	50.5	2.6	79	10	27	20	0	6	37	67	0.45	-0.09	0.23	5	1	T	T	11.8	ESE	30*	WSW	10	12	4	14	5.3	
MIDLAND	2854	917.9	1017.3	67	43	54.9	2.4	82	10	31	19	0	2	38	59	0.38	-0.09	0.34	2	0	0.0	0	9.5	S	27*	NNE	1	12	5	13	5.1	
PORT ARTHUR	16	1017.7	1019.3	70	48	58.8	- 0.4	82	11	34	9	0	0	51	81	6.13	2.67	4.23	6	0	0.0	0	9.5	N	39	SW	11	11	7	12	5.3	54
SAN ANGELO	1903	950.8	1018.5	69	45	56.9	1.1	88	10	33	19+	0	0	41	62	0.75	-0.03	0.48	5	1	0.0	0	7.7	SSE	23*	SSE	14	12	6	12	5.2	
SAN ANTONIO	792	993.9	1019.2	72	49	60.4	0.9	91	11	38	14+	1	0	47	66	4.97	3.60	4.00	7	2	0.0	0	9.2	N	31	N	27	13	5	12	4.8	57
VICTORIA	104	1014.6		73	50	61.7	- 0.7	86	11	40	14+	0	0			2.44	0.08	1.08	5	2	0.0	0	10.7		50*		27	14	4	12	4.6	
WACO	500	998.6	1019.9	68	48	57.8	1.0	86	10	35	13+	0	0	46	69	1.48	-0.71	0.84	6	1	0.0	0	12.6	SSE	33	S	15	12	3	15	5.6	
WICHITA FALLS	994	982.0	1019.4	65	43	54.3	2.3	80	10+	31	20	0	1	41	69	1.79	0.37	1.64	2	1	0.0	0	7.7	S	25*	NW	16	11	3	16	6.1	
UTAH																																
MILFORD	5028	846.5		58	24	41.2	5.1	72	4	7	19	0	27			0.19	-0.33	0.14	3	0	2.7	2						9	7	14	5.7	
SALT LAKE CITY	4220	871.0	1021.6	54	30	41.6	3.4	67	12	18	30+	0	19	29	65	0.44	-0.86	0.17	6	0	2.4	1	7.6	SSE	30	S	22	7	7	16	6.5	50
WENDOVER	4237	874.0		51	32	41.0	3.4	61	1	21	30	0	19			T	-0.29	T	0	0	T	T						9	8	13	5.8	
VERMONT																																
BURLINGTON	331	1005.1	1020.2	40	23	31.6	- 5.2	56	29	10	19	0	27	25	77	2.75	0.13	1.00	8	0	4.3	2	7.0	N	31	N	11	6	6	18	7.3	47
VIRGINIA																																
LYNCHBURG	947	994.2		54	37	45.2	- 1.8	66	17	27	26	0	7			4.97	2.39	2.29	12	0	0.8	T	10.0		35	NE	27	8	6	16	6.4	46
NORFOLK	26	1017.3	1018.5	56	44	49.8	- 1.6	70	17	32	7	0	1	43	78	4.06	1.01	1.16	11	1	0.0	0	13.6	NNE	52	SE	9	6	7	17	6.9	40
RICHMOND	162	1012.9	1019.2	58	37	47.2	- 1.3	73	17	25	7	0	8	36	69	6.73	3.69	2.35	10	0	0.9	T	8.6	NNE	27	SE	9	10	4	16	6.2	40
ROANOKE	1174	976.6	1019.6	54	36	45.0	- 1.7	69	15	23	26	0	9	33	65	5.11	2.41	3.00	11	0	2.4	1	9.8	NNE	35*	ENE	9	8	8	14	6.1	
WASHINGTON																																
OLYMPIA	190	1010.5	1017.2	52	39	45.6	1.8	67	2	28	23	0	5	43	90	15.51	7.84	4.33	22	0	T	0	8.5	SW	38*	SSW	25+	0	4	26	9.0	
SEATTLE TACOMA	400	1002.4	1016.5	52	41	46.5	2.6	63	2	30	29+	0	2	41	82	9.34	3.99	1.92	19	0	0.0	0	10.9	S	35*	S	24	1	5	24	8.8	
SEATTLE	14		1016.4											43	84								7.6	SSE								
SEATTLE U	14			53	45	49.2	2.3	60	7	35	29	0	0			6.87	1.87	1.40	19		T	0			60	SW	19					16
SPOKANE	2356	948.5	1018.3	44	32	37.9	2.7	53	2	21	29	0	17	34	85	3.02	0.78	0.67	17	0	4.4	1	9.7	SSW	50	SW	20+	0	6	24	9.0	23
STAMPEDE PASS R	3958	878.1		36	29	32.4	1.0	46	20+	17	29	0	23			19.78	7.20	7.94	26	0	84.0	37						0	2	28	9.3	
TATOOSH ISLAND	101	1011.2	1013.3	52	44	48.0	0.8	56	19+	37	28	0	0	43	80	16.34	5.83	3.06	27	4	0.0	0	19.3	SSE	80	SW	25	1	2	27	8.8	27
WALLA WALLA U	949	982.7		53	40	46.3	4.0	64	20	28	29	0	6			1.76	0.04	0.57	12	0	0.0	0	5.5	E#	34	W	20	1	7	22	8.4	24
YAKIMA	1061	979.0	1018.7	51	31	41.2	3.8	69	19	16	29	0	20	34	80	0.79	-0.17	0.35	10	0	0.0	0	6.0	W	37*	SW	19	5	8	17	7.4	
WEST INDIES																																
SAN JUAN P.R.	15	1011.5	1014.2	86	72	78.9	0.7	91	8	67	25	1	0	70	76	3.84	-2.65	2.17	11	0	0.0	0	6.2	ENE	27	NW	14	4	19	7	5.9	64
SWAN ISLAND	28	1011.2		83	75	78.9	- 1.2	85	9+	72	30+	0	0			11.63	4.24	3.00	19	4	0.0	0						2	13	15	7.0	
WEST VIRGINIA																																
CHARLESTON	939	984.4	1020.0	52	34	42.9	- 2.9	65	16	22	27	0	14	35	78	6.27	3.48	2.27	11	0	0.2	T	4.7	NE	23*	WNW	22	5	6	19	7.4	
ELKINS	1970	949.2	1019.7	51	31	40.9		68	30	16	26	0	16	32	75	3.88		1.17	12	0	1.0	T	6.9	NW	31*	WNW	22	6	5	19	7.5	
HUNTINGTON U	827	989.8	1020.2	52	35	43.3	- 3.4	66	16	24	23	0	12	37	82	4.66		1.61	13	0	T	T	6.1	NE	23*	WNW	22	4	9	17	7.3	
PARKERSBURG U	615			52	36	43.8	- 1.0	66	30	27	26	0	12			3.28	0.92	1.86	11	0	T	T	6.2		32	W	22					33
WISCONSIN																																
GREEN BAY	682	997.0	1020.3	44	29	36.6	2.9	56	30	13	24	0	20	31	80	0.84	-1.07	0.36	3	0	6.6	4	6.8	SW	47	S	20	2	5	23	8.1	23
LA CROSSE	652	995.1		45	30	37.3	3.1	57	30	20	9	0	20	28	71	0.09	-1.85	0.06	2	0	0.2	T	9.9	S	43*	WNW	21	6	3	21	7.8	
MADISON	858	984.1	1020.4	45	26	35.4	0.9	59	30+	15	24	0	27	28	75	0.34	-1.80	0.15	7	0	1.0	T	7.8	S	40	SW	20	3	10	17	7.6	33
MILWAUKEE	672	994.9	1020.6	45	31	37.9	2.1	61	30	20	25	0	18	30	75	0.81	-1.37	0.30	8	0	0.9	T	10.2	NNW	35	S	20	5	8	17	7.2	38
WYOMING																																
CASPER	5319	837.5	1017.5	51	29	39.9	6.3	65	5+	18	23	0	22	23	58	0.34	-0.37	0.24	6	0	4.5	2	12.8	SW	40*	WSW	22	9	7	14	6.0	

See footnotes at end of table

CLIMATOLOGICAL DATA

ENGLISH UNITS

State and Station		Pressure		Temperature												Precipitation							Wind					No. of days (sunrise to sunset)				
												No. of days							No. of days		Snow, Sleet				Fastest mile							
	Elevation (ground)	Station Ø	Sea level	Average maximum	Average minimum	Average	Departure from normal	Highest	Date	Lowest	Date	Max. 90° F. or above	Min. 32° F. or below	Average dew point	Average relative humidity	Total	Departure from normal	Greatest in 24 hours	.01 inch or more	With thunderstorms	Total	Maximum depth on ground	Average speed	Prevailing direction	Speed	Direction	Date	Clear, 0-3	Partly cloudy, 4-7	Cloudy, 8-10	Sky cover, tenths (sunrise to sunset)	Possible sunshine
	Ft.	Mb.	Mb.	F.	F.	F.	F.	F.		F.				F.	%	In.	In.	In.			In.	In.	M.p.h.		M.p.h							%
WYOMING																																
CHEYENNE	6126	813.4	1018.0	52	27	39.8	5.1	67	5+	10	19	0	21	22	57	0.33	-0.29	0.31	4	0	3.8	4	14.3	WNW	57	W	20	10	5	15	5.9	70
LANDER	5563	835.1	1018.1	50	25	37.2	6.2	64	5+	13	19	0	27	22	58	0.20	-0.72	0.11	3	0	2.1	1	5.9	W	38	W	5	11	5	14	5.5	66
SHERIDAN	3942	884.9	1018.2	52	27	39.3	5.9	70	3	12	24	0	25	25	63	0.63	-0.17	0.33	7	0	4.1	1	7.8	WNW	54	W	20	8	5	17	6.7	41

Data from airport unless otherwise specified. U indicates Urban, R indicates Rural, sites.

* Data entered in column "Fastest Mile" is the fastest mile observed. This station is not equipped with automatic wind recording instrument.
A Maximum hourly average.
+ And also on an earlier date or dates.
Ø Station pressures apply to elevations shown in the "Elevations - Station Pressure" table of the annual issue of this publication.
B Number of days maximum 70° F. or above for Alaskan Stations.
# Wind direction to 8 compass points only.
Y Peak Gust.

V Sun below horizon November 19 - 30, inclusive.
X Sun below horizon November 24 - 30, inclusive.

CLIMATOLOGICAL DATA

METRIC UNITS

NOVEMBER 1962

State and Station	Elevation (ground)	Pressure		Temperature											Average relative humidity	Precipitation							Wind					No. of days (sunrise to sunset)			Sky cover, tenths (sunrise to sunset)	Possible sunshine
												No. of days							No. of days		Snow, Sleet				Fastest mile (1.6 kilometers)							
		Station Ø	Sea level	Average maximum	Average minimum	Average	Departure from normal	Highest	Date	Lowest	Date	Max 32.2 °C or above	Min. 0 C or lower	Average dew point		Total	Departure from normal	Greatest in 24 hours	25 mm. or more	With thunderstorms	Total	Maximum depth on ground	Average speed	Prevailing direction	Speed	Direction	Date	Clear, 0-3	Partly cloudy, 4-7	Cloudy, 8-10		
	M.	Mb.	Mb.	C.	C.	C.	C.	C.		C.				C.	%	Mm.	Mm.	Mm.			Mm.	Mm.	M.p.s.		M.p.s							%
ALABAMA																																
BIRMINGHAM	186	994.4	1020.1	16.7	5.6	11.1	0.1	23.3	16	0.0	23	0	1	5.0	69	163	73	74	10	2	0	0	4.1	ENE	12.1	S	16+	9	3	18	6.6	47
HUNTSVILLE	184	996.6	1020.0	15.6	3.9	9.9	-0.6	21.7	30+	- 2.8	6	0	8	3.9	70	139	46	48	11	1	0	0	3.8	N	12.5*	NW	22	10	2	18	6.4	
MOBILE	64	1016.8	1019.2	19.4	8.3	13.8	-0.6	25.6	17	2.8	6	0	0	6.7	65	70	- 15	27	8	1	0	0	3.3	NE	12.5*	NW	12	7	10	13	6.1	
MONTGOMERY	59	1011.9	1019.7	17.8	5.6	11.7	-0.7	26.1	16	- 3.3	6	0	4	5.6	71	142	66	76	7	2	0	0	3.8	NNE	12.1	SW	16	8	7	15	6.2	50
ALASKA												B																				
ANCHORAGE	27	990.9	995.8	- 2.2	- 8.9	- 5.4	0.1	10.6	3	-20.0	25+	0	27	- 8.9	83	12	- 14	10	3	0	76	51	2.1	N	9.4*	ESE	3	6	7	17	6.4	53
ANNETTE	34	999.0	1002.7	8.9	4.4	6.7	2.2	17.8	2	0.6	22	0	0	3.9	82	388	16	61	29	2	T	0	5.5	ESE	17.9*	SE	6	0	2	28	9.4	
BARROW	7	1008.8	1009.6	-13.3	-18.9	-16.1	2.1	- 3.3	5+	-28.9	28	0	30	-18.9	76	1	- 5	1	1	0	5	229	6.5	ENE	17.9*	E	7	5V	1V	12V		
BARTER ISLAND	12	1007.1	1008.9	-11.1	-16.7	-14.1	3.6	- 2.8	5+	-31.7	29+	0	30	-18.3	68	5	- 5	3	4	0	48	102	8.5	E	20.6*	E	7+	8X	3X	12X		
BETHEL	38	994.6	995.7	- 6.7	-13.3	-10.1	-1.9	3.9	16+	-27.2	26	0	30	-12.8	78	4	- 23	2	7	0	76	76	4.7	NNE	11.6*	NNE	23+	1	6	23	8.6	
COLD BAY	29	987.1	990.8	3.9	0.6	2.1	0.8	8.3	1	- 5.6	30	0	14	0.6	87	65	- 31	14	21	0	53	76	6.9	NW	18.3*	NNW	27	1	5	24	8.6	
CORDOVA	12	992.6	994.5	4.4	- 3.3	0.6	1.1	12.8	3	-15.0	30	0	22	- 2.2	84	193	- 11	46	16	1	36	25	2.4	E	9.8*	ESE	3	2	6	22	8.2	
FAIRBANKS	133	984.8	1002.5	-11.1	-20.0	-15.3	0.3	5.6	4	-35.6	27	0	30	-18.3	74	4	- 11	1	6	0	79	51	1.9	N	6.7*	N	2	17	4	9	3.9	
JUNEAU	5	998.6	999.6	5.6	1.1	3.2	1.9	12.8	3	- 4.4	30	0	13	1.1	86	102	- 52	16	21	0	165	76	3.7	ESE	15.6*	ESE	18	0	0	30	9.9	02
KING SALMON	13	990.4	992.5	0.0	- 7.8	- 3.8	1.7	9.4	2+	-22.8	26	0	22	- 7.8	73	18	- 20	11	7	0	155	76	5.2	N	15.6*	ENE	27	6	6	18	7.1	
KOTZEBUE	3	1003.4	1003.6	-11.1	-16.1	-13.5	0.2	- 1.1	7+	-30.0	30	0	30	-16.7	76	3	- 7	2	3	0	53	102	4.3	E	12.5*	E	17+	13	3	14	5.4	
MC GRATH	102	987.1	1000.6	-12.8	-20.0	-16.4	-1.6	- 0.6	5+	-40.6	27	0	30	-19.4	75	7	- 20	6	3	0	272	381	0.8	N	5.4*	NNW	10+	7	5	18	7.0	
NOME	4	999.3	1000.2	- 5.6	-12.2	- 8.8	-0.2	3.3	2	-26.7	30	0	30	-12.8	71	1	- 29	1	2	0	10	25	4.2	N	12.5*	ENE	17	6	6	18	7.1	21
ST. PAUL ISLAND	7	991.8	993.0	2.8	- 2.8	0.0	-0.5	6.1	1	- 8.9	28	0	23	- 1.7	87	55	- 9	9	25	0	203	127	8.6	NW	21.5*	NE	13	0	3	27	9.3	
SHEMYA	37	996.3	1000.1	3.3	- 0.6	1.3	-0.8	7.2	5	- 5.6	29	0	20	- 1.7	80	77	8	24	21	0	302	76	10.0	WSW	25.0*	WSW	10	1	14	15	7.5	
YAKUTAT	9	994.9	996.1	5.0	- 1.1	1.9	0.9	10.6	3+	-12.2	30	0	18	0.0	87	463	56	96	22	1	653	533	4.0	ENE	15.6*	SSE	7+	3	2	25	8.6	
ARIZONA																																
FLAGSTAFF	2131	792.1	1020.1	13.3	- 4.4	4.3	1.8	21.1	2	- 8.9	28	0	28	- 4.4	62	31	6	14	7	1	74	T	2.5	N	11.6*	NNE	19	13	7	10	4.4	
PHOENIX	338	975.6	1014.9	25.0	7.8	16.6	1.6	31.1	12+	1.7	20	0	0	0.0	37	1	- 12	1	1	1	0	0	2.1	ESE	6.3*	WSW	16	19	4	7	3.2	83
PRESCOTT	1528	848.6	1017.9	18.9	1.7	10.2	2.6	26.7	2+	- 4.4	19	0	12	- 3.3	46	11	- 1	7	3	1	T	0	3.8	SSW	15.6	SW	16	15	11	4	3.7	81
TUCSON	788	926.5	1014.9	23.9	8.9	16.4	2.2	30.0	12	0.0	19	0	1	- 0.6	37	12	- 3	7	4	0	0	0	3.8	SSE	11.6	S	30	17	6	7	3.3	83
WINSLOW	1487	854.0	1020.0	17.2	0.6	8.8	3.4	23.9	13	- 3.9	8	0	14	- 1.1	59	27	18	20	4	1	3	T	3.0	ESE	11.6*	WNW	16	15	8	7	4.1	
YUMA	61	1009.8	1015.1	28.9	11.1	20.0	2.0	36.7	3	5.6	20+	9	0	2.2	37	1	- 2	1	1	0	0	0	2.8	N	9.4	N	19	20	4	6	2.9	87
ARKANSAS																																
FORT SMITH	137	1003.2	1020.5	16.1	4.4	10.2	0.2	22.2	11	- 2.8	9	0	2	5.0	75	74	- 7	42	9	1	0	0	3.2	ENE	11.6	W	16	9	9	12	6.0	49
LITTLE ROCK	78	1007.3	1020.8	16.1	5.0	10.4	0.7	23.3	16	- 1.1	10	0	4	5.0	72	43	- 62	12	10	0	0	0	3.1	NNE	13.4	W	16	11	2	17	6.3	46
TEXARKANA	110		1020.4	16.7	6.7	11.8	-0.3	25.6	11	1.1	9+	0	0	7.2	80	84	- 26	33	10	0	0	0	3.8	NW								
CALIFORNIA																																
BAKERSFIELD	151	1002.0	1020.1	20.0	7.2	13.7	0.4	28.3	2+	0.6	29	0	0	5.6	62	T	- 12	T	0	0	0	0	2.5	E	8.0*	NW	17	14	7	9	4.5	
BISHOP	1252	876.6		18.9	- 2.2	8.6	0.9	27.2	1	- 6.7	30	0	24			0	- 13	0	0	0	0	0						16	5	9	4.2	
BLUE CANYON	1609	841.2		12.2	5.0	8.4	1.1	22.8	1	- 3.3	29	0	4			102	- 69	56	6	0	163	51	3.5	ENE	15.6	ENE	18	7	7	16	6.4	
BURBANK	213	991.2	1017.2	21.7	9.4	15.6	-0.2	30.0	7+	5.0	16	0	0	6.1	62	T	- 27	T	0	0	0	0	2.7	ESE	13.4*	N	16	15	7	8	4.4	
EUREKA U	13	1018.8		14.4	8.3	11.3	0.6	20.6	8	1.7	29	0	0			172	55	57	17	0	0	0	2.4		15.2	SW	12	5	4	21	7.6	49
FRESNO	99	1006.8	1019.0	20.0	5.6	12.9	1.1	28.3	1	- 1.1	30+	0	3	6.1	70	1	- 23	1	1	0	0	0	2.2	NW	10.7	NW	16	13	9	8	4.4	82
LONG BEACH	10	1016.3	1017.7	21.1	10.0	15.7	-0.1	27.2	2	5.0	18	0	0	10.0	76	T	- 26	T	0	0	0	0	2.4	WNW	13.0*	WNW	16	12	7	11	5.3	
LOS ANGELES	30	1013.9	1017.8	19.4	11.7	15.4	-0.2	24.4	2	6.7	18	0	0	10.0	75	1	- 27	1	1	0	0	0	2.9	W	12.5*	N	16	12	8	10	5.2	
LOS ANGELES U	95			20.6	11.1	15.9	-1.2	27.2	1	7.8	22	0		8.3	67	T	- 27	T	0	0	0	0	2.3	W#	13.0	NW	16	17	3	10	4.1	73
MT SHASTA R	1080	895.4		12.2	0.6	6.2	0.8	23.3	2	- 8.3	29	0	14			76	- 25	48	10	0	20	25						10	10	10	5.4	
OAKLAND	1	1019.6	1020.0	18.3	8.3	13.3	0.7	25.0	1	2.8	29	0	0	8.3	74	15	- 28	13	4	0	0	0	2.9	WNW	9.4*	S	26+	10	10	10	5.4	
POINT ARGUELLO	112	1004.7		17.2	7.2	12.1	-0.9	22.8	2	1.1	20+	0	0			1	- 22	T	3	0	0	0	3.1		12.5*	NW	16	12	7	11	5.2	
RED BLUFF	104	1006.8	1019.6	18.9	6.7	12.8	0.3	30.0	1	3.3	29+	0	0	5.0	65	23	- 35	20	6	0	0	0	3.4	NW	16.5	SE	26	10	9	11	5.3	73
SACRAMENTO	5	1019.0	1019.9	18.3	6.7	12.6	0.1	25.6	1	1.1	30	0	0	8.3	81	10	- 27	8	2	0	0	0	1.6	NNW	10.7	NW	18	12	8	10	5.1	73
SACRAMENTO U	69			19.4	8.3	13.7	1.1	26.1	1	2.2	30	0	0			10	- 29	9	3		0	0										
SANDBERG R	1377	864.5		15.0	6.1	10.5	1.1	23.9	2	- 4.4	29	0	7			0	- 23	0	0	0	0	0	5.3	N	16.5*	N	17	19	6	5	3.1	
SAN DIEGO	4	1013.9	1017.0	20.0	11.1	15.4	-0.8	23.9	2	7.2	21+	0	0	10.0	73	T	- 23	T	1	0	0	0	2.5	NW	8.5	NW	12	9	11	10	5.6	62
SAN FRANCISCO	2	1019.6	1020.6	17.8	8.9	13.2	0.5	26.1	1	2.8	29	0	0	9.4	80	9	- 31	6	4	0	0	0	3.8	WNW	14.8	WNW	14	10	13	7	4.8	
SAN FRANCISCO U	16			18.3	11.7	14.9	0.8	27.2	1	7.8	29	0	0			15	- 36	9	3	0	0	0	2.7	W#	8.9	N	18					72
SANTA MARIA	73	1010.2	1018.9	20.0	6.7	13.2	-0.2	28.3	21	1.7	19	0	0	7.8	76	T	- 26	T	0	0	0	0	2.7	NW	11.6*	NW	16	16	6	8	4.0	
COLORADO																																
ALAMOSA	2297	772.8		11.1	- 9.4	0.9	2.3	17.2	4	-15.0	20+	0	30			13	6	9	4	0	170	152						13	10	7	4.3	
COLORADO SPRINGS	1882	813.1	1021.0	11.1	- 1.7	4.7	1.7	18.9	4	-10.6	19	0	22	- 6.7	52	23	12	11	3	0	211	127	4.1	NE	14.3*	NNW	21	14	3	13	5.0	
DENVER	1610	838.8	1018.3	13.3	- 2.8	5.2	1.2	22.2	5	- 9.4	19	0	25	- 6.7	51	17		12	4	0	127	51	4.3	S	21.5	W	6	12	6	12	5.4	62
GRAND JUNCTION	1478	862.2	1020.0	13.3	0.6	6.7	2.9	19.4	3+	- 5.6	19	0	16	- 4.4	52	9	- 6	6	3	0	84	76	1.8	ESE	9.8	W	10	11	9	10	5.1	76

See footnotes at end of table

CLIMATOLOGICAL DATA

METRIC UNITS

State and Station	Elevation (ground)	Pressure: Station Ø	Pressure: Sea level	Temperature: Average maximum	Temperature: Average minimum	Temperature: Average	Temperature: Departure from normal	Temperature: Highest	Temperature: Date	Temperature: Lowest	Temperature: Date	Temperature: No. of days: Max 32.2 °C or above	Temperature: No. of days: Min. 0 °C or lower	Average dew point	Average relative humidity	Precipitation: Total	Precipitation: Departure from normal	Precipitation: Greatest in 24 hours	Precipitation: No. of days: 25 mm or more	Precipitation: No. of days: With thunderstorms	Precipitation: Snow, Sleet: Total	Precipitation: Snow, Sleet: Maximum depth on ground	Wind: Average speed	Wind: Prevailing direction	Wind: Fastest mile (1.6 kilometers): Speed	Wind: Fastest mile (1.6 kilometers): Direction	Wind: Fastest mile (1.6 kilometers): Date	No. of days (sunrise to sunset): Clear, 0-3	No. of days (sunrise to sunset): Partly cloudy, 4-7	No. of days (sunrise to sunset): Cloudy, 8-10	Sky cover, tenths (sunrise to sunset)	Possible sunshine
	M.	Mb.	Mb.	C.	C.	C.	C.	C.		C.				C.	%	Mm.	Mm.	Mm.			Mm.	Mm.	M.p.s.		M.p.s.							%
COLORADO																																
PUEBLO	1414	858.1	1019.0	14.4	- 2.2	6.1	1.7	22.8	9	-10.6	19	0	21	- 3.9	57	20	6	10	3	0	122	127	3.2	WNW	15.2	NW	10	14	6	10	4.9	72
CONNECTICUT																																
BRIDGEPORT	2	1019.0	1019.9	8.9	1.1	5.1	-1.8	15.6	29+	- 3.9	7	0	12	- 1.1	67	83	- 20	31	6	0	8	T	6.2	NNW	17.0*	SE	10	10	8	12	5.9	
HARTFORD	52	1013.0	1019.1	8.3	- 2.2	3.0	-2.1	17.2	10	- 7.8	19	0	25	- 2.2	72	66	- 32	22	10	0	61	51	3.2	N	11.2	NW	23+	10	3	17	6.4	51
NEW HAVEN	2	1018.3		9.4	0.6	5.1	-1.3	16.1	10	- 3.9	25+	0	13			92	- 11	32	7	0	51	25	3.9		13.0	NW	22	10	6	14	6.1	57
DELAWARE																																
WILMINGTON	24	1016.4	1019.6	10.6	1.1	5.8	-1.6	16.7	30+	- 4.4	7	0	14	0.0	69	124	34	37	8	0	T	T	4.9	NW	16.5*	WNW	22+	8	8	14	6.5	
DIST.OF COLUMBIA																																
WASHINGTON U	22			11.1	2.2	6.6	-2.3	18.3	16	- 2.2	7	0	5			128	56	38	9													
WASH NATL AP	4	1014.9	1019.6	11.7	2.8	7.2	-1.6	17.8	16	- 1.7	7	0	2	0.6	64	130	58	40	10	0	T	T	3.8	N	17.4	ESE	10	8	5	17	6.5	46
FLORIDA																																
APALACHICOLA U	4	1016.6		18.9	10.6	14.8	-1.4	23.9	18	4.4	27	0	0			144	78	54	9	2	0	0						14	9	7	4.6	
DAYTONA BEACH	9	1016.6	1018.2	22.2	11.1	16.7	-1.8	28.3	21	4.4	11	0	0	12.2	77	63	4	31	9	2	0	0	4.5	NW	11.2	N	26+	8	12	10	5.4	
FORT MYERS	4	1016.9		24.4	13.3	18.9	-1.7	29.4	21+	6.1	27	0	0			76	46	65	5	0	0	0	4.3		10.3*	N	26+	16	7	7	4.3	
JACKSONVILLE	7	1017.6	1018.9	20.6	9.4	14.9	-1.6	28.9	21	2.2	15	0	0	9.4	73	53	10	18	10	0	0	0	4.0	N	18.8	NE	30	10	8	12	5.5	69
KEY WEST	2	1016.3	1016.9	24.4	19.4	22.0	-1.4	27.8	21+	13.3	27	0	0	16.7	71	29	- 42	22	7	0	0	0	5.9	NE	14.3	SE	8	9	12	9	5.5	67
LAKELAND U	65			22.2	12.2	17.2	-2.2	28.3	21+	3.3	27	0	0			51	10	32	5	0	0	0	3.4					13	7	10	4.8	56
MIAMI BEACH	3			25.0	18.3	21.5	-1.7	29.4	22	8.3	27	0	0			47	- 17	36	5		0	0	5.6		13.4	SW	9	9	10	11	5.4	54
MIAMI	2	1015.9	1017.0	24.4	15.6	20.1	-2.4	28.3	22	7.2	27	0	0	14.4	73	105	34	91	5	1	0	0	3.9	NNW	11.2*	N	14	7	11	12	5.8	
ORLANDO	32	1013.5	1017.9	22.8	11.7	17.2	-1.6	29.4	18	5.0	27	0	0	11.7	74	62	23	49	7	0	0	0	4.2	N	11.2*	WNW	9	10	11	9	5.2	
PENSACOLA U	4			18.9	9.4	14.2	-1.2	23.3	17	3.9	27	0	0			163	76	77	8	0	0	0	4.1	NE	13.0	NW	12					60
TALLAHASSEE	18	1016.6	1019.3	20.0	6.7	13.4	-1.7	25.6	18+	- 1.1	15	0	2	8.3	74	188	126	74	9	1	0	0	4.1	N	10.3*	NW	22+	11	9	10	5.3	
TAMPA	6	1016.6	1018.3	22.2	11.7	16.9	-2.4	26.7	21+	2.8	27	0	0	12.2	76	56	19	25	6	1	0	0	5.4	N	13.0*	SSW	21	12	10	8	4.9	62
WEST PALM BEACH	5	1016.3	1017.3	25.0	15.0	19.9	-2.6	28.9	20+	5.6	27	0	0	14.4	72	28	- 44	16	4	1	0	0	4.7	NW	12.1*	ESE	8	7	9	14	6.2	
GEORGIA																																
ATHENS	245	990.1	1019.6	16.1	4.4	10.4	-0.4	22.2	11	- 3.3	6	0	3	4.4	70	123	49	66	9	1	0		4.0	ENE	12.5*	NW	22+	10	6	14	5.8	
ATLANTA	306	976.6	1019.4	15.0	3.9	9.5	-1.1	19.4	30+	- 1.1	23+	0	4	2.8	67	157	82	80	9	1	0	0	3.7	NE	10.3*	NW	18	10	3	17	6.1	58
AUGUSTA	44	1011.9	1018.8	17.8	5.0	11.3	-1.0	24.4	17	- 1.7	23+	0	4	6.1	73	62	7	40	8	1	0	0	3.3	NE	13.9*	WNW	22	8	6	16	6.2	
COLUMBUS	117	1005.1		17.8	4.4	11.2	-1.1	24.4	17	- 2.2	6	0	6			105	39	43	7	1	0	0	3.8		12.5*	WSW	9	11	2	17	6.1	
MACON	109	1005.4	1019.1	18.3	5.6	11.7	-1.3	24.4	17	- 1.7	6	0	1	5.0	68	91	28	36	8	1	0	0	3.5	NE	13.0	NW	22	11	6	13	5.5	55
ROME	194	996.6		15.6	2.2	8.8	-0.8	21.7	16	- 5.6	6	0	13			158	72	70	9	1	0	0						9	7	14	6.1	
SAVANNAH	15	1016.6	1019.1	18.3	6.7	12.4	-1.6	26.1	21	- 0.6	6	0	2	6.7	72	47	- 5	22	9	0	0	0	4.7	NNE	13.4	SW	22	11	4	15	6.1	51
THOMASVILLE U	86			19.4	7.8	13.6	-1.6	26.1	17	2.2	6	0	0			126	73	43	10	1	0	0						11	8	11	5.0	
HAWAII																																
HILO	9	1016.9	1018.8	26.7	18.3	22.6	-0.3	29.4	3	16.7	25	0	0	17.8	77	168	-171	42	22	0	0		3.0	WSW	7.2*	SE	18+	6	11	13	6.7	45
HONOLULU	2	1017.5	1017.9	28.9	21.7	25.3	0.9	30.0	18+	17.2	15	0	0	16.7	62	1	- 54	1	2	0	0	0	5.7	ENE	15.2	NE	29	8	17	5	5.0	52
KAHULUI	13	1014.2	1017.4	28.9	19.4	24.1		31.1	14	16.7	16+	0	0	17.2	66	7		3	6	0	0	0	9.7	NE	22.8*	NE	29	19	7	4	3.4	76
LIHUE	35	1013.2	1019.2	27.2	21.1	24.3	0.7	28.9	18+	18.9	15+	0	0	18.9	73	84	- 31	22	19	0	0	0	6.3	NE	13.4	E	28	4	16	10	6.4	50
IDAHO																																
BOISE	865	923.1	1021.0	10.6	0.0	5.2	1.3	18.3	2+	- 6.1	17	0	15	0.6	76	42	12	20	9	0	8	T	3.4	SE	10.7	S	30	2	8	20	7.9	59
IDAHO FALLS 42NW R	1460			8.3	- 7.8	0.4	2.6	17.2	3	-14.4	24	0	20			6	- 2	3	6				2.5	N	15.2	S	26					
IDAHO FALLS 46W R	1504	850.0		8.9	- 6.7	0.9	2.2	18.3	3	-16.7	23	0	29			3	- 8	2	5	0	T	T	2.8	SW	15.6	SW	22					
LEWISTON	431	966.5		10.0	2.2	6.2	1.9	18.9	20+	- 2.8	29	0	7			35	4	18	9	0	0	0						1	4	25	9.0	
POCATELLO	1355	866.2	1021.9	10.0	- 2.8	3.5	1.8	19.4	3	-11.7	18	0	23	- 3.3	65	28	3	13	7	0	282	127	4.6	SSW	19.2	SW	22	6	7	17	6.9	54
ILLINOIS																																
CAIRO U	96	1007.2		13.3	4.4	8.8	0.0	19.4	29+	0.0	5	0	1			37	- 61	12	10	1	0	0	3.6	N#	11.2	SW	15	7	5	18	6.8	41
CHICAGO O HARE	201	995.1	1020.2	10.0	- 1.1	4.5		17.8	30	- 6.1	25+	0	20	- 0.6	73	18		10	9	0	8	T	4.2	NNW	11.6*	SSW	20	6	5	19	7.4	
CHICAGO MIDWAY	186	997.3	1020.7	10.0	1.7	5.8	1.3	18.9	30	- 2.8	24+	0	7	- 0.6	68	28	- 28	14	10	0	10	T	4.2	S	16.5	W	23	6	3	21	7.3	37
MOLINE	177	998.1	1020.9	9.4	- 1.7	3.9	0.2	18.9	14	- 7.8	9	0	22	- 1.1	72	31	- 19	27	6	0	T	T	4.3	E	20.1	NW	23	8	7	15	6.4	42
PEORIA	199	998.4	1021.3	10.0	0.0	4.9	0.6	17.8	14	- 5.0	28+	0	16	- 0.6	72	27	- 28	22	4	1	T	T	4.8	N	17.0	SW	23	7	9	14	6.3	49
ROCKFORD	222	992.8	1020.7	8.9	- 1.1	3.8	0.9	17.8	30	- 6.7	24	0	21	- 1.1	74	21	- 39	12	6	0	T	T	4.6	NNW	16.1*	SSW	20	7	8	15	6.6	
SPRINGFIELD	179	996.3	1020.5	11.1	1.1	6.1	0.9	17.8	30	- 3.9	24	0	14	0.6	71	49	- 11	27	8	1	T	T	4.7	N	22.4	SW	23	10	4	16	6.5	50
INDIANA																																
EVANSVILLE	116	1004.4	1020.6	12.2	1.7	6.8	-0.3	19.4	29	- 5.6	27+	0	12	2.2	75	40	- 41	19	8	1	T	T	2.2	NW	11.6	NW	22	7	6	17	6.9	48

See footnotes at end of table

CLIMATOLOGICAL DATA

METRIC UNITS

State and Station	Elevation (ground)	Pressure		Temperature											Average relative humidity	Precipitation							Wind					No. of days (sunrise to sunset)			Sky cover, tenths (sunrise to sunset)	Possible sunshine
		Station Ø	Sea level	Average maximum	Average minimum	Average	Departure from normal	Highest	Date	Lowest	Date	No. of days		Average dew point		Total	Departure from normal	Greatest in 24 hours	No. of days		Snow, Sleet		Average speed	Prevailing direction	Fastest mile (1.6 kilometers)			Clear, 0-3	Partly cloudy, 4-7	Cloudy, 8-10		
												Max 32.2 °C or above	Min. 0 C or lower						25 mm. or more	With thunderstorms	Total	Maximum depth on ground			Speed	Direction	Date					
	M.	Mb.	Mb.	C.	C.	C.	C.	C.		C.				C.	%	Mm.	Mm.	Mm			Mm	Mm.	M.p.s.		M.p.s.							%
INDIANA																																
FORT WAYNE	241	988.6	1020.7	10.0	0.0	4.8	0.7	17.2	30	- 7.2	26	0	18	0.0	75	26	- 39	14	7	0	T	T	3.8	NE	17.0	W	23	5	6	19	7.6	33
INDIANAPOLIS	242	989.7	1020.4	10.6	1.1	5.8	0.8	18.3	29	- 4.4	23	0	12	1.1	75	36	- 42	23	7	0	5	T	3.8	NNE	16.1*	NW	22	6	5	19	7.4	51
SOUTH BEND	234	991.5	1020.2	8.9	0.0	4.5	0.6	16.7	29	- 4.4	23	0	10	0.0	76	35	- 33	19	8	0	76	51	4.1	SSW	17.0*	W	23	5	3	22	7.5	
IOWA																																
BURLINGTON	212	994.2	1021.0	10.6	- 0.6	4.4	0.9	20.0	14	- 6.7	10	0	18	- 1.1	69	28	- 20	26	5	1	T	T	4.2	SE	18.8	NW	23	8	8	14	6.2	62
DES MOINES	289	988.7	1020.8	9.4	0.0	4.7	1.4	18.9	13	- 6.7	24	0	17	- 0.6	71	20	- 24	12	5	0	38	T	3.2	SSE	17.4	SW	20	4	9	17	7.2	42
DUBUQUE	325	994.6		7.2	- 1.7	2.8	1.2	16.1	14	- 7.2	24	0	25			22	- 44	13	4	0	10	T			19.7*	SW	20	6	3	21	7.5	
SIOUX CITY	334	977.2	1019.7	10.6	- 0.6	4.9	2.9	21.7	20	- 7.8	8	0	18	- 1.1	69	3	- 26	2	4	0	5	T	4.4	SSE	18.8	NW	23	6	9	15	6.6	54
WATERLOO	265	987.8	1020.7	8.9	- 2.2	3.2	1.4	16.7	14	- 9.4	9	0	24	- 1.7	74	6	- 41	3	3	0	18	T	4.1	SSE	16.1*	NW	23	2	14	14	7.1	
KANSAS																																
CONCORDIA	448	965.5	1019.8	11.7	0.0	5.9	0.4	20.6	13+	- 7.2	5	0	16	0.6	72	14	- 11	9	7	0	53	25	5.0	SSE	15.2	NW	1	9	5	16	6.2	49
DODGE CITY	791	930.1	1019.8	13.3	0.6	6.9	0.9	25.0	13	- 5.6	8	0	17	0.0	69	15	- 2	9	6	0	109	25	4.6	SSW	15.2	N	11+	10	9	11	5.6	65
GOODLAND	1111	889.8	1019.3	12.8	- 2.8	4.8	1.5	22.2	13	-10.0	18+	0	27	- 2.8	65	11	- 1	9	3	0	135	76	5.0	WSW	13.9*	NNW	6	15	4	11	4.8	
TOPEKA	267	984.0	1020.4	12.8	0.6	6.7	0.8	22.8	13	- 6.7	9	0	13	1.7	75	26	- 12	15	5	0	T	T	4.7	N	15.2	S	23	12	5	13	5.8	56
WICHITA	403	970.2	1019.9	13.3	1.7	7.4	0.6	21.1	13	- 3.3	8	0	10	2.2	73	41	3	33	6	0	T	T	5.2	S	16.1	N	11	8	5	17	6.5	48
KENTUCKY																																
COVINGTON	265	987.5	1019.8	11.7	0.0	6.0	-0.5	20.0	30	- 7.2	23	0	16	0.6	71	60	- 16	31	8	0	20	T	3.3	ENE	10.3*	WNW	22+	6	2	22	7.7	
LEXINGTON	298	983.7	1020.2	11.1	2.2	6.7	-0.3	18.3	30	- 3.3	23	0	11	2.2	76	100	16	50	10	0	T	0	4.0	ENE	10.7*	NW	22+	7	6	17	7.0	
LOUISVILLE	144	1000.3	1020.1	12.2	1.7	6.8	0.0	18.9	29	- 5.0	23	0	10	2.2	75	40	- 41	19	11	0	T	0	3.4	N	13.0	N	22	8	5	17	7.0	37
LOUISIANA																																
ALEXANDRIA	28	1015.8	1020.5	18.9	5.0	11.9		27.8	11	- 0.6	23+	0	5	6.7	75	112		55	6	2	0	0	2.7	NNE				10	6	14	5.6	
BATON ROUGE	20	1016.7	1019.9	20.6	8.3	14.4	-0.2	28.3	16	3.3	14	0	0	8.3	72	23	- 81	21	3	0	0	0	3.4	NE				10	7	13	5.6	
BURRWOOD R	2		1019.4											12.8	76	0		105					6.1	NE								
LAKE CHARLES	4	1013.4	1019.9	20.6	8.9	14.6	-0.7	26.1	16+	3.3	9	0	0	10.0	79	112	5	74	5	1	0	0	6.1	ENE	13.9	NNW	12	14	3	13	5.2	
NEW ORLEANS	1	1017.4	1019.6	20.0	8.9	14.4	-0.9	27.2	16	2.8	5	0	0	9.4	73	50	- 35	38	4	2	0	0	3.7	ENE	9.8*	S	17	11	6	13	5.2	
NEW ORLEANS AUDUBON	3	1012.7		20.6	11.7	15.9		26.7	16	7.8	5	0	0			70		34	7	0	0	0	1.9		6.7	NW	12	12	7	11	5.0	55
SHREVEPORT	77	1011.4	1019.3	18.9	7.2	12.9	0.0	28.3	11	0.0	4	0	1	6.7	72	89	- 18	21	10	1	0	0	4.3	NW				11	6	13	5.7	55
MAINE																																
CARIBOU	190	994.5	1018.6	2.2	- 5.6	- 1.4	-0.4	8.9	8	-13.3	20	0	28	- 3.9	84	110	33	38	9	0	99	51	4.6	NW	15.6*	WNW	23	5	8	17	7.3	
PORTLAND	19	1014.9	1018.8	7.2	- 2.8	2.3	-1.1	15.0	28	- 8.3	27+	0	25	- 2.2	74	108	2	43	10	0	33	25	3.7	NNW	15.2	N	15+	11	4	15	6.1	44
MARYLAND																																
BALTIMORE	45	1015.2	1019.7	10.6	0.0	5.3	-2.2	16.1	30+	- 5.6	7	0	17	- 1.1	87	165	86	65	8	0	8	0	4.1	W	14.3	NW	22	8	6	16	6.2	48
BALTIMORE U	4			11.7	3.9	7.8	-1.5	17.8	29	0.0	26+	0	3			156	77	62	8													
FREDERICK	90			10.6	0.0	5.1	-1.7	16.7	30	- 5.6	26+	0	18			108	34	30	10		T											
MASSACHUSETTS																																
BLUE HILL OBS R	192	993.2	1017.3	7.8	0.0	3.9	-1.7	17.2	30	- 5.6	19	0	18		71	118	3	34	10	0	86	76	6.3	NNW	21.9	NW	11+					50
BOSTON	5	1013.3	1018.1	8.9	1.7	5.4	-1.8	16.7	30	- 2.8	19	0	10	- 0.6	67	97	- 3	38	9	0	23	25	6.0	WNW	17.9	NE	3	10	4	16	6.2	52
NANTUCKET	13	1016.9	1017.4	9.4	3.3	6.3	-1.1	15.6	22	- 2.8	20	0	3	2.8	77	189	86	79	13	1	T	0	6.7	NNW	22.4	NW	15	5	9	16	7.2	43
PITTSFIELD	357			6.7	- 3.3	1.6	-1.3	18.9	29	- 9.4	26	0	26			47	- 52	17	10		66	T										
WORCESTER	301	980.7	1018.1	6.7	- 0.6	2.9	-1.1	18.3	30	- 6.1	7	0	21	- 3.3	68	98	- 10	40	10	0	91	76	3.9	NW	15.6*	ENE	3	10	4	16	6.0	
MICHIGAN																																
ALPENA	210	994.8		6.7	- 3.9	1.3	-0.7	15.0	30	-11.7	18	0	23			20	- 40	9	8	0	137	102	2.9	W#	11.2	NE	4	6	8	16	7.0	51
DETROIT	189	993.2	1020.7	8.3	1.1	4.6	-0.1	14.4	30	- 3.9	27	0	14	0.0	74	33	- 23	18	9	0	5	T	3.9	N	18.8	NW	23	5	5	20	7.5	39
DETROIT M WAYNE CO	193	996.1	1020.8	8.9	- 1.1	3.9	-0.2	16.1	30	- 6.7	27+	0	18	0.0	78	34	- 24	14	10	0	T	T	3.5	ENE				4	8	18	7.5	
DETROIT WILLOW RUN	217	991.5	1020.6	8.3	- 0.6	3.8	-0.6	15.0	29	- 8.3	26	0	16	- 0.6	77	32	- 25	12	9	0	T	T	4.7	NNE	17.9	WNW	23	4	8	18	7.7	
ESCANABA U	181	996.9		5.0	- 0.6	2.1	0.9	8.3	30+	- 6.1	23	0	19			18	- 41	9	6	0	97	51	4.7		17.0	S	20	4	7	19	8.0	24
FLINT	233	992.9	1021.5	7.8	- 2.2	2.8	-0.5	13.9	30	- 7.2	6	0	22	- 1.1	78	17	- 39	8	7	0	10	T	3.4	NE	11.2*	NNW	10	3	7	20	7.7	
GRAND RAPIDS	208	994.8	1020.9	8.9	- 0.6	4.1	0.7	16.7	30	- 5.6	23	0	19	- 1.1	73	16	- 47	6	8	0	20	T	4.0	E	13.0	SW	20	4	5	21	7.8	31
LANSING	330	987.6	1020.6	8.3	- 1.7	3.3	0.0	15.0	30	- 6.1	19	0	21	- 1.7	73	13	- 43	6	8	0	15	T	5.0	SSE	18.8	W	23+	4	8	18	7.5	52
MARQUETTE U	206	991.5		5.6	- 0.6	2.4	1.4	13.9	30	- 5.6	23	0	21			29	- 54	8	12	0	114	25	3.8	S#	16.5	SW	26	1	5	24	8.8	32
MUSKEGON	191	996.9	1020.5	8.9	0.0	4.4	0.7	14.4	30+	- 5.0	23	0	18	0.0	77	28	- 46	13	8	0	183	25	3.9	SE	14.3*	SSW	20	4	4	22	8.0	
SAULT STE MARIE	220	997.4	1020.2	4.4	- 2.2	1.2	1.0	8.3	10	- 8.9	18	0	25	- 2.2	79	22	- 62	6	10	0	130	76	3.7	ENE	10.3*	WNW	22	1	8	21	8.4	36
MINNESOTA																																
DULUTH	435	976.3	1018.8	4.4	- 2.2	1.0	3.9	11.1	30	- 7.2	22+	0	22	- 3.9	72	7	- 38	3	6	0	46	25	5.2	SSW	17.0	W	21	2	5	23	8.5	33

See footnotes at end of table

CLIMATOLOGICAL DATA

METRIC UNITS

State and Station	Elevation (ground)	Pressure		Temperature											Average relative humidity	Precipitation							Wind					No. of days (sunrise to sunset)			Sky cover, tenths (sunrise to sunset)	Possible sunshine
												No. of days							No. of days		Snow, Sleet				Fastest mile (1.6 kilometers)							
		Station Ø	Sea level	Average maximum	Average minimum	Average	Departure from normal	Highest	Date	Lowest	Date	Max 32.2 °C or above	Min. 0 °C or lower	Average dew point		Total	Departure from normal	Greatest in 24 hours	25 mm or more	With thunderstorms	Total	Maximum depth on ground	Average speed	Prevailing direction	Speed	Direction	Date	Clear, 0-3	Partly cloudy, 4-7	Cloudy, 8-10		
	M.	Mb.	Mb.	C.	C.	C.	C.	C.		C.				°C.	%	Mm.	Mm.	Mm.			Mm.	Mm.	M.p.s.		M.p.s.							%
MINNESOTA																																
INTERNATIONAL FALLS	359	975.6	1018.0	3.3	- 4.4	- 0.3	4.2	11.7	26	-12.8	5	0	25	- 3.9	80	12	- 25	3	11	0	91	25	3.6	S	13.0*	W	21	4	5	21	8.0	
MINNEAPOLIS	555	985.4	1019.9	6.1	- 2.8	1.7	2.5	14.4	20	-15.6	24	0	23	- 2.8	72	13	- 22	10	5	0	142	152	5.0	S	16.1	NNW	4	3	7	20	8.0	37
ROCHESTER	395	971.1	1020.3	6.7	- 2.2	2.3	2.3	15.0	30	- 6.7	24	0	25	- 2.2	77	5	- 35	4	3	0	5	T	5.8	S				3	6	21	7.8	
ST CLOUD	315	980.6	1019.7	6.7	- 2.8	1.7	3.1	17.8	20	-10.0	5	0	26	- 6.1	75	11	- 23	6	5	0	107	102						3	5	22	8.0	
MISSISSIPPI																																
JACKSON	93	1007.6	1019.9	17.8	6.1	12.0	-0.7	25.6	16+	- 1.1	10	0	2	6.1	71	73	- 21	19	12	1	0	0	3.2	NW	15.2	W	11	9	7	14	6.0	51
MERIDIAN	89	1006.3	1020.4	17.8	4.4	11.0	-1.3	25.6	16	- 2.2	10	0	7	6.1	77	76	- 3	24	9	2	0	0	3.0	N	9.4*	N	22+	10	3	17	6.1	
VICKSBURG U	71	1010.5		17.2	7.8	12.4	-1.0	25.0	11	3.3	9+	0	0			93	- 19	33	7	1	0	0	3.7		13.4	W	11	11	3	16	5.7	57
MISSOURI																																
COLUMBIA	237	990.5	1019.7	12.2	1.7	7.1	0.8	20.6	14	- 6.1	9	0	6	0.6	69	19	- 39	14	4	0	T	T	4.3	SSE	13.0	N	4	10	5	15	6.1	49
KANSAS CITY	226	984.4	1019.9	13.3	2.8	8.1	1.3	21.7	13	- 3.3	5	0	7	1.1	66	31	- 14	18	6	0	T	T	2.7	N	14.3	SW	20	9	8	13	6.0	57
ST JOSEPH	247	984.9		12.2	0.6	6.3	1.1	20.6	13	- 5.6	24	0	13			19	- 23	13	4	0	T	T	4.0	SSE	13.9*	SSW	20	10	8	12	5.5	
ST LOUIS	163	999.7	1020.8	12.2	2.2	7.2	0.4	21.1	15	- 2.8	10	0	11	- 0.6	62	18	- 47	12	8	1	0	0	3.7	NW	14.3	W	23	10	3	17	6.2	41
ST LOUIS RFC	142			12.2	3.9	8.2	0.5	21.1	15	- 0.6	5	0	1			23	- 45	18	6		0	0										
SPRINGFIELD	386	971.9	1020.3	12.8	1.1	6.9	-0.3	20.0	14+	- 6.1	9+	0	12	1.7	76	26	- 44	10	10	2	30	25	3.8	SSE	16.1	SE	26	9	6	15	6.3	55
MONTANA																																
BILLINGS	1087	891.0	1016.6	10.6	0.0	5.2	2.9	20.6	3	- 8.3	24+	0	17	- 3.3	59	22	6	15	6	0	208	102	5.3	WSW	19.2	W	20	4	11	15	7.2	55
GLASGOW	694	940.4		8.9	- 1.1	3.8	5.9	17.8	8	- 7.8	24+	0	22	- 2.2	69	11	- 1	9	4	0	T	0						4	7	19	7.8	
GREAT FALLS	1116	887.2	1016.7	10.0	- 0.6	4.6	2.8	22.2	3	- 9.4	16	0	17	- 5.0	53	9	- 10	8	3	0	53	51	6.7	SW	27.3	SW	20	3	5	22	7.7	49
HAVRE	787	924.8		10.0	- 2.2	3.8	4.9	20.0	3	-11.1	29	0	21			2	- 10	2	2	0	T	0	4.5	SW#	31.3	SW	20	4	10	16	7.3	45
HELENA	1187	873.7	1018.9	8.3	- 3.3	2.7	2.9	16.1	8+	-11.1	24	0	23	- 3.9	65	14	0	5	7	0	30	25	3.4	WNW	25.0	SW	19	4	6	20	7.6	58
KALISPELL	904	912.6		6.1	- 1.7	2.3	3.9	11.1	20+	-10.6	24	0	19			25	- 11	7	11	0	38	25	2.4					0	4	26	9.1	
MILES CITY	800			9.4	- 1.7	3.9		17.8	5+	- 7.8	24	0	24	- 1.1	74	11		4	4	0	36	25	4.2		17.9	SW	19	3	7	20	7.6	
MISSOULA	972	903.8	1020.9	5.0	- 2.8	1.1	1.9	12.2	26	-11.1	24	0	24	- 1.7	84	15	- 7	5	8	0	20	T	2.4	NW	11.6	NW	26	1	3	26	9.0	26
NEBRASKA																																
GRAND ISLAND	561	852.9		9.4	- 2.8	3.5	0.1	20.0	13	- 9.4	8	0	24	- 1.7	74	3	- 17	3	2	0	20	25	4.6	S				9	6	15	6.5	
LINCOLN U	351			10.6	1.1	5.7	0.8	21.1	13	- 5.6	8	0	13			18	- 14	14	5	0	8	T	4.4	S#	13.9	S	23	7	5	18	6.7	49
NORFOLK	471	962.1		10.6	- 1.7	4.4	2.2	23.3	20	-11.7	25	0	19			2	- 21	2	2	0	5	T						9	5	16	6.4	
NORTH PLATTE	847		1018.6	12.2	- 3.3	4.3	2.3	21.7	9	- 9.4	18+	0	25	- 3.9	61	2	- 10	2	2	0	38	51	4.7	SSE	16.5	N	1	10	7	13	6.0	59
OMAHA	298	979.0	1020.0	10.6	1.1	5.6	1.7	20.0	13	- 5.6	8	0	15	0.6	73	17	- 15	9	6	0	20	T	5.0	SSE	16.5	NW	23	7	7	16	6.6	54
OMAHA N OMAHA AP	403	970.6		9.4	0.6	4.9	2.2	19.4	13	- 6.1	8	0	15			18	- 15	10	7	0	13	25						5	12	13	6.6	
SCOTTSBLUFF	1204	880.0	1018.5	12.8	- 2.8	4.9	3.1	21.7	5	- 8.9	19	0	24	- 3.3	63	5	- 7	2	6	0	15	T	4.5	NW	20.6*	WNW	20	10	6	14	6.0	
VALENTINE	789	925.4		12.2	- 3.9	4.2	3.3	23.9	13	-13.3	18	0	25			T	- 12	T	1	0	T	T	4.8	SW#	18.8	NW	20	10	9	11	5.4	64
NEVADA																																
ELKO	1547	848.0	1022.2	11.1	- 7.2	1.9	0.7	20.0	4+	-13.3	30	0	29	- 5.6	62	9	- 13	3	7	0	48	25	2.3	SW	9.4*	W	22+	7	8	15	6.4	
ELY	1907	794.1	1020.7	12.8	- 6.1	3.3	2.4	20.6	4	-13.9	19+	0	29	- 7.2	54	7	- 8	5	2	0	28	25	3.9	SSW	13.0	S	28	9	9	12	5.9	78
LAS VEGAS	659	950.9	1017.5	21.1	7.2	14.1	2.4	27.8	1	3.3	19	0	0	- 2.8	34	T	- 8	T	0	0	0	0	3.4	SW	13.0*	NW	18	14	9	7	4.0	83
RENO	1342	865.6	1021.7	15.6	- 5.6	4.9	0.8	22.8	4+	-12.8	30	0	30	- 2.8	63	1	- 14	1	2	0	T	T	2.2	S	17.0	S	26	7	9	14	6.1	72
WINNEMUCCA	1310	870.6		12.8	- 5.0	4.1	1.9	22.2	4+	-11.7	30	0	29	- 2.8	60	25	4	11	7	0	33	T	2.8	S	15.6	W	26	8	8	14	6.2	94
NEW HAMPSHIRE																																
CONCORD	103	1007.8	1018.9	7.8	- 2.8	2.3	-0.8	17.8	30	-10.6	26	0	26	- 3.3	72	67	- 27	28	9	0	10	T	2.5	NW	13.9	NW	11	9	6	15	6.0	49
MT WASHINGTON OBS	1909	801.9		- 2.2	-10.0	- 6.2	0.3	5.6	29+	-17.8	23	0	30		70	207	39	65	14	0	937	152	11.0	NW#	55.4Y	NW	23	11	6	13	5.6	53
NEW JERSEY																																
ATLANTIC CITY	18	1016.6	1019.3	11.7	1.7	6.5	-1.7	17.8	30	- 5.0	7	0	11	1.1	71	124	31	35	8	0	0	0	4.4	NW	15.6*	S	10+	9	3	18	6.0	70
ATLANTIC CITY U	3			11.1	3.3	7.0	-2.1	16.1	10	- 2.8	7	0	5			113	17	39	8				6.9		25.9*	NE	3					
NEWARK	3	1018.3	1019.5	10.0	2.8	6.4	-1.1	16.7	30	- 1.7	7	0	3	- 1.7	60	112	26	45	9	0	8	T	4.6	NE	15.6*	NNW	11	7	12	11	5.8	
TRENTON U	17	1011.5		10.0	2.2	6.1	-1.6	16.7	30	- 1.7	19+	0	6			121	40	34	9	0	5	T	4.2	N	16.1	E	10	6	12	12	5.9	57
NEW MEXICO																																
ALBUQUERQUE	1618	850.7	1018.8	14.4	1.7	8.3	1.6	21.1	10+	- 3.9	19	0	9	- 1.7	54	15	6	10	7	1	T	T	3.1	N	15.2	NW	21	18	2	10	3.6	77
CLAYTON	1515	846.9		15.0	- 0.6	7.1	1.7	24.4	4	-10.6	18	0	17			8		3	4	1	30	25						14	5	11	4.6	
RATON	1944	807.0		13.9	- 4.4	4.7	1.6	22.8	4	-13.9	17	0	27			19	9	12	5	1	145	127						13	7	10	4.7	
ROSWELL	1103	895.0		17.8	- 2.2	7.8	0.6	26.1	10	-10.6	20	0	23	- 1.1	54	16	7	12	3	0	15	25	3.4	SSE	18.8	NW	15	14	3	13	4.7	63
SILVER CITY	1638	871.3		18.3	2.2	10.3		22.8	11+	- 2.8	20	0	6			25		22	3	1	0	0						17	4	9	3.6	

See footnotes at end of table

CLIMATOLOGICAL DATA

METRIC UNITS

State and Station	Elevation (ground)	Pressure		Temperature											Average relative humidity	Precipitation							Wind					No. of days (sunrise to sunset)			Sky cover, tenths (sunrise to sunset)	Possible sunshine
												No. of days							No. of days		Snow, Sleet				Fastest mile (1.6 kilometers)							
		Station ○	Sea level	Average maximum	Average minimum	Average	Departure from normal	Highest	Date	Lowest	Date	Max 32.2 °C or above	Min. 0 C or lower	Average dew point		Total	Departure from normal	Greatest in 24 hours	25 mm or more	With thunderstorms	Total	Maximum depth on ground	Average speed	Prevailing direction	Speed	Direction	Date	Clear, 0-3	Partly cloudy, 4-7	Cloudy, 8-10		
	M.	Mb.	Mb	C.	C.	C.	C.	C.		C.				C.	%	Mm.	Mm.	Mm.			Mm	Mm	M.p.s.		M.p.s							%
NEW YORK																																
ALBANY	84	1016.2	1020.0	6.1	- 2.8	1.7	-2.3	16.7	10	-10.0	19	0	22	- 2.8	74	54	- 15	19	9	0	41	25	3.0	N	13.0	NW	22	7	5	18	6.6	51
BINGHAMTON	485	958.7	1019.3	5.0	- 1.7	1.6	-1.5	13.9	30	- 6.7	26+	0	25	- 2.2	79	48	- 16	16	9	1	175	152	3.8	NNW	13.0	W	22	6	4	20	7.4	39
BUFFALO	215	990.8	1021.0	7.2	- 1.7	2.8	-0.8	17.2	29	- 8.3	19	0	25	- 2.2	74	45	- 46	28	10	0	64	51	4.0	ENE	13.0	W	22+	4	5	21	7.6	44
NEW YORK U	40	1007.1		9.4	2.8	6.2	-2.1	16.7	30	- 2.2	19	0	4	- 1.1	63	100	14	41	7	0	T	0	4.2	N#	17.0	NE	3	10	11	9	4.9	57
NEW YORK LA GUARDIA	6	1017.6	1019.3	9.4	3.3	6.4	-2.1	16.1	10	- 0.6	19	0	3	- 1.1	61	101	9	27	9	1	28	T	4.6	NNE	16.1	NE	3	7	11	12	5.9	
ROCHESTER	166	1001.4	1021.1	7.2	- 1.7	2.7	-1.8	16.1	30+	- 9.4	19	0	24	- 1.7	76	51	- 13	20	10	0	152	152	3.8	SSW	15.6	NE	10	5	8	17	7.2	41
SCHENECTADY	66			6.7	- 1.7	2.4	-1.3	13.3	30+	- 8.9	19	0	20			61	- 7	28	8		20	25						12	9	9	4.7	
SYRACUSE	127	998.0	1020.4	6.1	- 2.2	1.9	-2.6	12.8	30+	-10.0	19	0	24	- 2.2	74	56	- 17	20	10	0	279	127	4.3	ESE	22.4	W	22	7	6	17	7.1	41
NORTH CAROLINA																																
ASHEVILLE U	671	938.7		13.3	2.2	7.8	-0.3	18.9	16	- 3.3	27+	0	8			61	5	39	10	0	8	T	3.7	NW#	15.2	NW	10	8	5	17	6.6	45
CAPE HATTERAS R	2	1015.9	1016.5	15.6	8.3	12.0	-1.4	21.7	9	0.6	24	0	0	8.3	77	372	268	102	15	2	0		6.1	NNE	21.5	SE	9	6	7	17	6.8	
CHARLOTTE	224	990.2	1018.9	14.4	3.3	8.9	-1.6	20.0	18+	- 2.8	23	0	7	2.8	68	135	71	71	10	0	T	T	4.2	NNE	12.1	SW	10	10	7	13	5.8	50
GREENSBORO	272	987.5	1019.2	13.3	2.8	8.2	-0.6	20.0	15	- 3.3	7	0	8	2.8	72	161	93	84	13	0	T	0	4.6	NNE	15.2	NE	27	9	3	18	6.4	50
RALEIGH	132	1004.4	1018.5	14.4	3.3	8.7	-1.3	19.4	15+	- 2.8	7	0	8	3.9	74	183	112	97	11	0	33	25	4.8	NNE	13.4*	N	26	7	7	16	6.3	41
WILMINGTON	9	1014.6	1017.5	16.7	6.1	11.5	-1.5	24.4	21+	- 0.6	7	0	1	7.2	77	127	49	72	13	2	T	0	5.9	N	26.4	N	26	7	7	16	6.7	47
WINSTON SALEM	295	983.4	1019.3	13.3	3.3	8.5	-0.9	20.6	15	- 1.7	7	0	6	2.2	67	133	63	74	12	0	T	0	5.5	NE	20.6*	NW	18+	9	7	14	6.2	
NORTH DAKOTA																																
BISMARCK	502	955.5	1017.6	7.8	- 3.9	1.9	3.9	18.3	3	-11.1	24+	0	26	- 3.9	69	8	- 7	6	5	0	10	T	3.7	WNW	17.0	NW	21	5	5	20	7.5	38
DEVILS LAKE U	448	962.3		4.4	- 4.4	- 0.1	3.7	13.3	26	-11.7	22	0	29			23	6	17	4	0	51	25	3.7	S#	16.5	NW	20	5	5	20	7.5	45
FARGO	274	982.6	1017.9	6.1	- 2.8	1.7	4.1	15.0	20	-12.8	22	0	22	- 1.7	81	14	- 8	7	5	0	79	76	5.0	W	16.5	SE	8	5	3	22	8.0	38
WILLISTON U	579	947.2		7.8	- 2.8	2.3	4.2	18.9	3	-10.0	24	0	25			10	- 5	7	5	0	61	25	4.3	SSE	21.0	NW	20	4	5	21	7.9	41
OHIO																																
AKRON	369	981.4	1020.3	8.9	1.1	4.8	0.5	18.9	30	- 4.4	26+	0	12	- 0.6	72	54	- 4	40	10	0	T	0	3.8	E	13.0*	WNW	24	6	5	19	7.3	
CINCINNATI OBS	232			11.1	2.8	6.8	-0.2	18.3	29	- 2.2	27+	0	6			54	- 21	32	9	0	10	T	2.8		11.2	W	22					38
CINCINNATI U	169	996.6		12.2	3.9	8.2	0.4	20.6	30	- 1.1	23	0	1			55	- 23	32	7		13											
CLEVELAND	237	991.9	1020.2	10.0	1.7	5.8	1.7	17.8	30	- 6.1	26	0	10	0.0	71	70	4	50	9	0	T	0	3.9	SSE	17.0	N	10	4	4	22	7.8	30
COLUMBUS	247	989.8	1020.5	9.4	0.6	4.9	-0.8	18.9	30	- 6.7	26+	0	15	0.0	75	75	11	35	10	0	T	0	3.4	ENE	13.9	N	10	5	6	19	7.6	33
COLUMBUS U	221			10.0	3.3	6.6	0.3	18.3	30	- 2.8	23	0	3			80	23	44	10	0	T	0										
DAYTON	304	987.1	1020.3	9.4	0.6	5.1	-0.3	18.3	30	- 5.0	23	0	14	0.6	75	65	- 3	38	9	0	T		4.2	ENE	13.9	NW	10	4	6	20	7.5	37
MANSFIELD	395			8.3	0.6	4.4	0.3	18.9	30	- 5.0	23	0	16			61	- 7	45	8	0	T	0						4	4	22	7.7	
SANDUSKY U	185	998.0		8.9	2.2	5.6	-0.1	14.4	30+	- 3.3	23	0	6			76	18	50	9	0	T	T	3.6		23.2	NW	24	8	5	17	6.6	50
TOLEDO	206	994.6	1020.6	8.9	- 1.7	3.5	-0.2	15.6	30	- 7.8	27+	0	20	0.0	80	43	- 9	22	8	0	T	0	3.1	WSW	15.2	W	23	5	4	21	7.8	37
YOUNGSTOWN	359	976.6	1020.3	7.8	0.0	3.9	-0.7	17.2	30	- 7.2	26	0	16	- 1.7	72	60	- 11	43	11	0	8	T	4.1	ESE	13.0*	WSW	22	4	5	21	7.7	
OKLAHOMA																																
OKLAHOMA CITY	390	976.1	1020.3	15.0	4.4	9.7	0.8	22.8	6	- 0.6	20+	0	4	4.4	73	34	- 6	18	7	3	T	T	5.2	SSE	16.5	N	16+	10	3	17	6.2	54
TULSA	206	995.2	1020.1	15.6	4.4	9.9	0.4	22.2	13	- 1.7	9	0	4	3.9	71	54	- 4	27	6	1	T	T	4.6	SSE	14.3	SW	14	10	5	15	5.9	52
OREGON																																
ASTORIA	2	1015.9	1016.5	12.8	5.6	9.3	1.4	20.6	1	- 0.6	23	0	1	7.2	87	361	76	66	25	3	0	0	4.4	SSE	20.6*	SSW	25	2	5	23	8.5	
BURNS U	1265	875.0		9.4	- 2.8	3.3	1.0	21.1	2	-12.8	29	0	26	- 1.1	74	31	2	12	11	0	33	25						2	9	19	7.6	
EUGENE	110	1005.8		12.8	4.4	8.8	1.3	19.4	7	- 2.2	29	0	4			161	18	65	18	0	0	0	3.5		16.5*	S	25	0	8	22	8.7	
MEACHAM	1234			5.6	- 1.1	2.3	0.9	17.8	4	- 9.4	29	0	20			105	- 1	21	18	0	231	76						1	5	24	8.5	
MEDFORD	396	973.2	1021.6	11.7	1.7	6.7	0.3	21.1	2	- 4.4	29	0	7	3.9	87	111	45	30	17	0	0	0	1.3	N	11.2*	SSE	25	1	9	20	8.1	
PENDLETON	452	964.8	1019.3	11.7	3.3	7.3	2.4	18.3	19	- 3.9	29	0	8	1.7	70	35	- 1	10	14	0	T		3.8	SSE	14.3*	S	30	2	6	22	8.5	
PORTLAND	6	1012.5	1018.2	12.2	5.0	8.7	1.4	19.4	2+	- 0.6	29+	0	3	5.6	83	237	101	47	23	0	0	0	4.2	ESE	17.0	S	24	3	3	24	8.4	40
PORTLAND U	9			13.3	6.7	10.0	1.6	19.4	2	0.0	29	0	1			270	117	60	19	0	0	0										
ROSEBURG	154	1001.1		14.4	5.0	9.7	1.9	20.6	4	- 2.8	28	0	3			137	24	40	20	0	0	0	1.8	S#	11.6	S	25	0	9	21	8.5	31
SALEM	59	1011.5	1018.9	12.2	4.4	8.2	0.8	19.4	1	- 1.7	29	0	3	6.1	86	217	72	54	23	1	0		4.4	S	14.8*	S	25	2	5	23	8.6	
SEXTON SUMMIT R	1169	885.9		7.8	2.2	5.2	-0.8	21.7	2	- 4.4	29	0	10			174	63	42	19	0	163	51	6.2	S				5	3	22	7.8	
PACIFIC AREA																																
CANTON ISLAND	2	1008.8	1009.3	31.1	25.6	28.2	-0.5	32.8	28	23.9	17+	3	0	21.7	70	4	- 37	4	2	0	0	0	5.9	ENE	10.3*	ENE	30+	4	12	14	6.8	
ENIWETOK	4	1008.5	1009.1	30.6	25.0	27.8	-0.3	31.7	5+	22.8	6	0	0			184	24	44	22	1	0	0	6.5									
TAGUAC GUAM R	110			29.4	23.9	26.6	0.3	31.7	17	21.1	17	0	0			332	71	0	28	2	0	0	4.6		35.8	NE	11					
JOHNSTON	2	1013.2	1013.9	27.2	25.0	26.2	-0.3	28.9	8	22.8	21	0	0			45	- 8	23	14	0	0	0	8.4		17.4	E	26	8	17	5	5.3	75
KOROR R	29	1005.4	1009.1	31.7	25.0	28.2	0.8	32.8	16+	22.8	4	14	0	24.4	84	174	-155	40	23	7	0	0	3.4	NW	10.7	SE	20	0	1	29	9.6	57
PONAPE R	37	1003.1	1007.8	30.0	23.3	26.7	0.1	32.2	14	21.7	30+	1	0	23.9	86	721	293	89	29	12	0	0	2.2	ENE	10.3	E	22+	0	2	28	9.6	51
TRUK MOEN ISLAND	2	1007.6	1007.8	30.0	24.4	27.1	-0.1	31.1	15+	21.7	28	0	0	23.9	83	663	350	264	25	4	0	0	3.6	NE	20.1	N	8	0	3	27	9.3	28
YAP R	17	1005.8	1007.8	30.6	24.4	27.6	0.1	32.2	14	23.3	16	1	0	24.4	84	188	- 95	45	25	0	0	0	4.2	NE	13.4	W	13	0	0	30	1.0	58

See footnotes at end of table

CLIMATOLOGICAL DATA

METRIC UNITS

State and Station	Elevation (ground)	Pressure		Temperature											Average relative humidity	Precipitation							Wind						No. of days (sunrise to sunset)			Sky cover, tenths (sunrise to sunset)	Possible sunshine
												No. of days							No. of days		Snow, Sleet				Fastest mile (1.6 kilometers)							
		Station Ø	Sea level	Average maximum	Average minimum	Average	Departure from normal	Highest	Date	Lowest	Date	Max 32.2 °C or above	Min. 0 C or lower	Average dew point		Total	Departure from normal	Greatest in 24 hours	25 mm. or more	With thunderstorms	Total	Maximum depth on ground	Average speed	Prevailing direction	Speed	Direction	Date	Clear, 0-3	Partly cloudy, 4-7	Cloudy, 8-10		
	M.	Mb.	Mb.	C.	C.	C.	C.	C.		C.				C.	%	Mm.	Mm.	Mm.			Mm.	Mm.	M.p.s.		M.p.s.							%
PENNSYLVANIA																																
ALLENTOWN	115	1005.4	1020.1	9.4	- 1.1	4.3	-1.2	16.7	30+	- 5.6	27	0	23	- 1.1	71	105	20	40	10	0	89	25	4.4	NW	16.1*	NW	24	7	9	14	6.1	
ERIE	223	993.6	1020.3	8.3	1.1	4.7	-0.4	17.2	29	- 4.4	26	0	11	- 0.6	71	54	- 31	30	11	0	8	T	5.8	S	16.5*	WNW	24	5	6	19	7.6	
HARRISBURG	102	1006.1	1020.0	10.0	0.0	5.1	-1.6	16.1	10	- 5.6	27	0	15	0.0	73	104	29	33	11	0	114	102	3.1	NNW	15.2	W	24	7	8	15	6.6	44
PHILADELPHIA	2	1014.9	1019.3	10.6	0.6	5.6	-1.2	17.2	10	- 6.7	7	0	15	- 1.7	61	117	30	34	8	0	T	0	4.5	ENE	13.4	NW	22	7	9	14	6.4	54
PHILADELPHIA U	11			10.0	3.3	6.6	-2.2	16.1	8	- 1.1	19	0	3			132		37	7													
PITTSBURGH	351	989.8	1020.8	9.4	0.6	5.1	0.2	16.1	30	- 6.1	26	0	16	- 1.1	68	39	- 18	22	9	0	T	0	3.5	ENE	12.5*	WNW	22	5	6	19	7.4	40
PITTSBURGH U	228			10.6	2.8	6.6	-0.4	17.2	30+	- 2.8	27+	0	9			32	- 28	18	7		T											35
READING U	81	1007.5	1019.6	10.6	1.7	6.0	-1.3	17.2	30+	- 2.8	7	0	7			125	39	56	11	1	30	25	4.2	NW#	23.2	E	9	6	10	14	6.3	45
SCRANTON	287	985.4	1020.4	6.7	- 1.1	2.6	-1.7	13.9	28	- 6.7	26	0	20	- 2.8	69	71	- 4	22	9	0	117	51	3.1	NNW	13.9	NW	24	6	7	17	7.0	40
WILLIAMSPORT	161	1001.0	1020.6	8.9	- 1.1	3.8	-1.3	14.4	10	- 6.1	27	0	21	- 1.7	72	63	- 25	28	10	0	79	51	3.3	W	14.3*	ESE	10	6	6	18	6.9	
RHODE ISLAND																																
BLOCK ISLAND	34	1013.2	1017.6	9.4	3.3	6.3	-1.3	15.0	10	- 1.7	20	0	6			190	96	65	9	0	8	T						8	12	10	5.8	
PROVIDENCE	17	1012.5	1018.5	9.4	0.6	4.9	-1.2	15.6	10	- 3.9	30	0	16	- 0.6	69	114	10	37	9	0	43	51	4.6	NNW	14.8*	NNW	15	9	6	15	6.0	54
SOUTH CAROLINA																																
CHARLESTON	12	1016.0	1018.0	17.8	6.1	11.9	-1.3	26.7	21	- 0.6	23	0	4	7.2	77	51	- 2	14	11	0	0	0	4.7	N	24.6Y	SW	22	9	6	15	6.2	54
CHARLESTON U	3			17.2	8.9	13.1	-1.7	23.9	21	3.9	26+	0	0			55	6	27	10		0	0	5.7		18.8	SW	22					
COLUMBIA	66	1005.8	1018.9	17.8	5.0	11.3	-0.8	25.0	21	- 1.7	7	0	5	5.0	67	115	55	55	9	1	0	0	4.2	NNE	13.0*	SW	9	9	5	16	6.1	50
FLORENCE	45	1012.5	1018.1	16.7	5.6	11.2	-1.3	25.0	21	0.0	7	0	1	5.0	69	86	27	39	10	1	0	0	4.7	NNE	12.1*	WNW	22	8	7	15	6.2	
GNVLE SPARTANBURG	292	981.4	1018.8	16.1	5.6	10.8		22.2	11	- 0.6	7+	0	4	2.8	62	114		72	7	0	0	0	3.9	NE	12.5	N	27	9	10	11	5.6	54
SOUTH DAKOTA																																
HURON	391	970.0	1018.3	10.0	- 4.4	2.7	2.6	25.0	20	-10.0	18	0	25	- 3.3	67	2	- 15	2	2	0	T	T	5.2	SSE	18.3	NW	20	10	4	16	6.5	51
RAPID CITY	965	901.7	1017.8	11.7	- 2.2	4.8	3.1	21.1	20	- 8.9	19	0	22	- 3.9	61	2	- 8	1	4	0	10	T	4.4	NNW	16.5	N	20	9	6	15	6.3	61
SIOUX FALLS	433	966.1	1019.0	9.4	- 2.2	3.7	3.3	23.3	20	- 9.4	8	0	22	- 1.1	73	4	- 21	4	2	0	T	T	4.4	SSW	12.1*	W	6	4	11	15	6.7	
TENNESSEE																																
BRISTOL	459	964.0	1019.4	12.2	1.7	7.1	-0.4	17.2	30+	- 5.0	26	0	11	1.7	73	70	7	30	12	0	3	T	2.5	ENE	12.5*	WSW	22	6	6	18	7.1	
CHATTANOOGA	204	991.8	1019.9	14.4	3.9	9.2	-0.2	21.1	29	- 3.3	6	0	7	3.9	72	154	61	76	11	1	0	0	3.4	NNE	14.8	NW	22	11	4	15	6.4	48
KNOXVILLE	290	983.9	1019.9	13.3	2.8	8.0	-1.0	20.0	29	- 3.3	27+	0	9	2.2	69	117	35	35	12	0	T	T	3.7	NE	16.1	SW	10	5	6	19	7.2	39
MEMPHIS	80	1005.6	1020.6	15.6	5.0	10.1	-0.2	24.4	11	- 1.1	10	0	2	4.4	70	59	- 53	25	10	1	0	0	4.0	E	11.6	N	12	8	5	17	6.5	53
MEMPHIS U	83			14.4	6.1	10.4	-0.6	23.3	11	0.6	10+	0	0			34	- 72	10	9		0	0										
NASHVILLE	176	999.6	1019.8	14.4	3.3	8.8	-0.3	20.6	30+	- 3.9	6	0	7	3.9	75	86	2	49	9	1	T	T	3.0	S	11.2*	NW	9	8	5	17	6.9	50
OAK RIDGE	276	985.8		13.3	2.2	7.8	-0.7	19.4	29	- 3.3	27+	0	11			138	42	49	11	0	T	T	2.0		13.0Y		22	6	7	17	7.1	
TEXAS																																
ABILENE	536	957.1	1019.0	18.9	6.7	12.8	1.1	29.4	10	- 0.6	19	0	2	5.6	68	27	- 1	13	5	0	T	T	3.8	S	12.5	S	15	11	3	16	6.0	55
AMARILLO	1099	891.0	1018.2	15.6	2.2	8.8	1.3	26.7	4	- 3.3	20	0	8	0.6	63	13	- 3	13	2	0	193	102	5.6	SSW	15.2	NE	6	10	9	11	5.2	65
AUSTIN	182	997.5	1019.7	20.6	10.0	15.3	0.4	30.6	11	3.3	9	0	0	7.8	67	23	- 30	10	5	1	0	0	3.9	S	11.6	S	15	12	3	15	5.4	51
BROWNSVILLE	5	1015.7	1018.3	26.1	13.9	20.1	0.3	30.6	27+	7.2	21+	0	0	13.9	71	21	- 12	19	4	0	0	0	5.2	NW	12.1	SE	15	13	8	9	4.5	53
CORPUS CHRISTI	13	1017.7	1019.0	24.4	12.2	18.2	0.3	31.7	11	4.4	21	0	0	12.2	71	29	- 15	19	4	2	0	0	5.3	NNE	13.9	SE	15	12	8	10	4.6	59
DALLAS	147	1001.4	1020.2	18.3	8.3	13.2	0.4	27.8	10	2.2	4	0	0	7.2	71	145	77	82	9	5	0	0	4.8	SSE	12.5	S	15	10	4	16	6.0	57
DEL RIO U	292			22.2	11.1	16.6	1.4	30.0	11	2.8	21	0	0			7	- 9	5	3		0	0										
EL PASO	1194	888.0	1016.7	20.0	4.4	12.1	0.8	25.6	14	- 3.9	20	0	4	- 0.6	47	5	- 3	2	4	1	0		2.7	NE	17.0	NW	15	14	5	11	4.3	77
FORT WORTH	166	999.0	1020.2	18.3	7.8	13.1	0.4	28.3	10	1.7	4	0	0	7.2	72	100	37	49	7	2	0	0	5.1	S	13.4*	ESE	26	9	4	17	6.0	
GALVESTON U	2			20.0	14.4	17.1	-0.2	24.4	11	9.4	21+	0	0			91	1	48	6	0	0	0	5.5		17.4	NE	27					73
GALVESTON	2	1017.3	1019.8	20.0	13.9	16.8	0.2	25.6	11	8.9	21+	0	0	10.0	65	83	- 14	48	6	1	0	0	5.1	N				13	6	11	4.7	
HOUSTON U	12			21.1	12.8	17.0	0.6	28.3	11	8.3	9+	0	0			136	33	79	6		0	0										
HOUSTON	15	1016.7	1019.4	21.1	10.0	15.6	-0.7	28.9	11	2.8	9	0	0	10.0	74	144	46	70	7	2	0		4.6	NNW				13	5	12	5.2	61
LAREDO	152	1003.1	1018.5	25.6	12.8	19.3	1.1	33.3	11	6.7	21	1	0	9.4	60	23	1	18	5	2	0	0	4.5	ENE	13.0*	NNE	17+	13	7	10	4.8	
LUBBOCK	988	905.7	1018.6	17.2	3.3	10.3	1.4	26.1	10	- 2.8	20	0	6	2.8	67	11	- 2	6	5	1	T	T	5.3	ESE	13.4*	WSW	10	12	4	14	5.3	
MIDLAND	870	917.9	1017.3	19.4	6.1	12.7	1.3	27.8	10	- 0.6	19	0	2	3.3	59	10	- 2	9	2	0	0		4.2	S	12.1*	NNE	1	12	5	13	5.1	
PORT ARTHUR	5	1017.7	1019.3	21.1	8.9	14.9	-0.2	27.8	11	1.1	9	0	0	10.6	81	156	68	107	6	0	0	0	4.2	N	17.4	SW	11	11	7	12	5.3	54
SAN ANGELO	580	950.8	1018.5	20.6	7.2	13.8	0.6	31.1	10	0.6	19+	0	0	5.0	62	19	- 1	12	5	1	0	0	3.4	SSE	10.3*	SSE	14	12	6	12	5.2	
SAN ANTONIO	241	993.9	1019.2	22.2	9.4	15.8	0.5	32.8	11	3.3	14+	1	0	8.3	66	126	91	102	7	2	0	0	4.1	N	13.9	N	27	13	5	12	4.8	57
VICTORIA	32	1014.6		22.8	10.0	16.5	-0.4	30.0	11	4.4	14+	0	0			62	2	27	5	2	0	0	4.8		22.4*		27	14	4	12	4.6	
WACO	152	998.6	1019.9	20.0	8.9	14.3	0.6	30.0	10	1.7	13+	0	0	7.8	69	38	- 18	21	6	1	0	0	5.6	SSE	14.8	S	15	12	3	15	5.6	
WICHITA FALLS	303	982.0	1019.4	18.3	6.1	12.4	1.3	26.7	10+	- 0.6	20	0	1	5.0	69	45	9	42	2	1	0	0	3.4	S	11.2*	NW	16	11	3	16	6.1	
UTAH																																
MILFORD	1533	846.5		14.4	- 4.4	5.1	2.8	22.2	4	-13.9	19	0	27			5	- 8	4	3	0	69	51						9	7	14	5.7	
SALT LAKE CITY	1286	871.0	1021.6	12.2	- 1.1	5.3	1.9	19.4	12	- 7.8	30+	0	19	- 1.7	65	11	- 22	4	6	0	61	25	3.4	SSE	13.4	S	22	7	7	16	6.5	50

See footnotes at end of table

CLIMATOLOGICAL DATA
METRIC UNITS

State and Station	Elevation (ground)	Pressure		Temperature											Average relative humidity	Precipitation							Wind					No. of days (sunrise to sunset)			Sky cover, tenths (sunrise to sunset)	Possible sunshine
												No. of days							No. of days		Snow, Sleet				Fastest mile (1.6 kilometers)							
		Station Ø	Sea level	Average maximum	Average minimum	Average	Departure from normal	Highest	Date	Lowest	Date	Max 32.2 °C or above	Min 0 °C or lower	Average dew point		Total	Departure from normal	Greatest in 24 hours	25 mm or more	With thunderstorms	Total	Maximum depth on ground	Average speed	Prevailing direction	Speed	Direction	Date	Clear, 0-3	Partly cloudy, 4-7	Cloudy, 8-10		
	M.	Mb.	Mb.	C.	C.	C.	C.	C.		C.				C.	%	Mm.	Mm.	Mm.			Mm	Mm.	M.p.s.		M.p.s.							%
UTAH																																
WENDOVER	1291	874.0		10.6	0.0	5.0	1.9	16.1	1	- 6.1	30	0	19			T	- 7	T	0	0	T	T						9	8	13	5.8	
VERMONT																																
BURLINGTON	101	1005.1	1020.2	4.4	- 5.0	- 0.2	-2.9	13.3	29	-12.2	19	0	27	- 3.9	77	70	3	25	8	0	109	51	3.1	N	13.9	N	11	6	6	18	7.3	47
VIRGINIA																																
LYNCHBURG	289	994.2		12.2	2.8	7.3	-1.0	18.9	17	- 2.8	26	0	7			126	61	58	12	0	20	T	4.5		15.6	NE	27	8	6	16	6.4	46
NORFOLK	8	1017.3	1018.5	13.3	6.7	9.9	-0.9	21.1	17	0.0	7	0	1	6.1	78	103	26	29	11	1	0	0	6.1	NNE	23.2	SE	9	6	7	17	6.9	40
RICHMOND	49	1012.9	1019.2	14.4	2.8	8.4	-0.7	22.8	17	- 3.9	7	0	8	2.2	69	171	94	60	10	0	23	T	3.8	NNE	12.1	SE	9	10	4	16	6.2	40
ROANOKE	358	976.6	1019.6	12.2	2.2	7.2	-0.9	20.6	15	- 5.0	26	0	9	0.6	65	130	61	76	11	0	61	25	4.4	NNE	15.6*	ENE	9	8	8	14	6.1	
WASHINGTON																																
OLYMPIA	58	1010.5	1017.2	11.1	3.9	7.6	1.0	19.4	2	- 2.2	23	0	5	6.1	90	394	199	110	22	0	T	0	3.8	SW	17.0*	SSW	25+	0	4	26	9.0	
SEATTLE TACOMA	122	1002.4	1016.5	11.1	5.0	8.1	1.4	17.2	2	- 1.1	29+	0	2	5.0	82	237	101	49	19	0	0	0	4.9	S	15.6*	S	24	1	5	24	8.8	
SEATTLE	4		1016.4											6.1	84	0		0					3.4	SSE								
SEATTLE U	4			11.7	7.2	9.6	1.3	15.6	7	1.7	29	0	0			174	47	36	19		T	0			26.8	SW	19					16
SPOKANE	718	948.5	1018.3	6.7	0.0	3.3	1.5	11.7	2	- 6.1	29	0	17	1.1	85	77	20	17	17	0	112	25	4.3	SSW	22.4	SW	20+	0	6	24	9.0	23
STAMPEDE PASS R	1206	878.1		2.2	- 1.7	0.2	0.6	7.8	20+	- 8.3	29	0	23			502	183	202	26	0	2134	940						0	2	28	9.3	
TATOOSH ISLAND	31	1011.2	1013.3	11.1	6.7	8.9	0.4	13.3	19+	2.8	28	0	0	6.1	80	415	148	78	27	4	0	0	8.6	SSE	35.8	SW	25	1	2	27	8.8	27
WALLA WALLA U	289	982.7		11.7	4.4	7.9	2.2	17.8	20	- 2.2	29	0	6			45	1	14	12	0	0	0	2.5	E#	15.2	W	20	1	7	22	8.4	24
YAKIMA	323	979.0	1018.7	10.6	- 0.6	5.1	2.1	20.6	19	- 8.9	29	0	20	1.1	80	20	- 4	9	10	0	0	0	2.7	W	16.5*	SW	19	5	8	17	7.4	
WEST INDIES																																
SAN JUAN P.R.	5	1011.5	1014.2	30.0	22.2	26.1	0.4	32.8	8	19.4	25	1	0	21.1	76	98	- 67	55	11	0	0	0	2.8	ENE	12.1	NW	14	4	19	7	5.9	64
SWAN ISLAND	9	1011.2		28.3	23.9	26.1	-0.7	29.4	9+	22.2	30+	0	0			295	108	76	19	4	0	0						2	13	15	7.0	
WEST VIRGINIA																																
CHARLESTON	286	984.4	1020.0	11.1	1.1	6.1	-1.6	18.3	16	- 5.6	27	0	14	1.7	78	159	88	58	11	0	5	T	2.1	NE	10.3*	WNW	22	5	6	19	7.4	
ELKINS	600	949.2	1019.7	10.6	- 0.6	4.9		20.0	30	- 8.9	26	0	16	0.0	75	99		30	12	0	25	T	3.1	NW	13.9*	WNW	22	6	5	19	7.5	
HUNTINGTON U	252	989.8	1020.2	11.1	1.7	6.3	-1.9	18.9	16	- 4.4	23	0	12	2.8	82	118		41	13	0	T	T	2.7	NE	10.3*	WNW	22	4	9	17	7.3	
PARKERSBURG U	187			11.1	2.2	6.6	-0.6	18.9	30	- 2.8	26	0	12			83	23	47	11	0	T	T	2.8		14.3	W	22					33
WISCONSIN																																
GREEN BAY	208	997.0	1020.3	6.7	- 1.7	2.6	1.6	13.3	30	-10.6	24	0	20	- 0.6	80	21	- 27	9	3	0	168	102	3.0	SW	21.0	S	20	2	5	23	8.1	23
LA CROSSE	199	995.1		7.2	- 1.1	2.9	1.7	13.9	30	- 6.7	9	0	20	- 2.2	71	2	- 47	2	2	0	5	T	4.4	S	19.2*	WNW	21	6	3	21	7.8	
MADISON	262	984.1	1020.4	7.2	- 3.3	1.9	0.5	15.0	30+	- 9.4	24	0	27	- 2.2	75	9	- 46	4	7	0	25	T	3.5	S	17.9	SW	20	3	10	17	7.6	33
MILWAUKEE	205	994.9	1020.6	7.2	- 0.6	3.3	1.2	16.1	30	- 6.7	25	0	18	- 1.1	75	21	- 35	8	8	0	23	T	4.6	NNW	15.6	S	20	5	8	17	7.2	38
WYOMING																																
CASPER	1621	837.5	1017.5	10.6	- 1.7	4.4	3.5	18.3	5+	- 7.8	23	0	22	- 5.0	58	9	- 9	6	6	0	114	51	5.7	SW	17.9*	WSW	22	9	7	14	6.0	
CHEYENNE	1867	813.4	1018.0	11.1	- 2.8	4.3	2.8	19.4	5+	-12.2	19	0	21	- 5.6	57	8	- 7	8	4	0	97	102	6.4	WNW	25.5	W	20	10	5	15	5.9	70
LANDER	1696	835.1	1018.1	10.0	- 3.9	2.9	3.4	17.8	5+	-10.6	19	0	27	- 5.6	58	5	- 18	3	3	0	53	25	2.6	W	17.0	W	5	11	5	14	5.5	66
SHERIDAN	1202	884.9	1018.2	11.1	- 2.8	4.1	3.3	21.1	3	-11.1	24	0	25	- 3.9	63	16	- 4	8	7	0	104	25	3.5	WNW	24.1	W	20	8	5	17	6.7	41

Data from airport unless otherwise specified. U indicates Urban, R indicates Rural. sites.

* Value entered in column headed 'Fastest Mile' is the highest observed wind speed. This station is not equipped with an automatic recording wind instrument.
A Maximum hourly average.
+ And also on an earlier date or dates.
Ø Station pressures apply to elevations shown in the "Elevations - Station Pressure" table of the annual issue of this publication.
B Number of days maximum 21.1 C. or above for Alaskan Stations.
# Wind direction to 8 compass points only.
Y Peak Gust.

V Sun below horizon November 19 - 30, inclusive.
X Sun below horizon November 24 - 30, inclusive.

Data in this table is obtained by conversion from data in the English Units table.

HEATING DEGREE DAYS

(Base 65°F.)

NOVEMBER 1962

State and station	Current season		Normals
	This month	Period July through this month	July through this month
ALABAMA			
Birmingham	382	491	544
Huntsville	448	593	565
Mobile	242	283	265
Montgomery	359	445	398
ALASKA			
Anchorage	1274	3134	3266
Annette	623	1748	2127
Barrow	1860	5823	6149
Barter Island	1747	5625	5923
Bethel	1533	3843	3801
Cold Bay	868	2994	3117
Cordova	952	2889	3077
Fairbanks	1816	3877	4181
Juneau	810	2496	2768
King Salmon	1092	3170	3346
Kotzebue	1720	4399	4527
McGrath	1875	4181	4154
Nome	1463	4061	4219
St. Paul	982	3649	3575
Shemya	914	3176	3213
Yakutat	877	2723	2811
ARIZONA			
Flagstaff	747	1537	1692
Phoenix (U)	79	80	
Phoenix	115	116	223
Prescott	433	665	851
Tucson	137	150	274
Winslow	506	753	929
Yuma	36	36	99
ARKANSAS			
Ft. Smith	435	531	589
Little Rock	421	516	601
Texarkana	346	402	423
CALIFORNIA			
Bakersfield	257	301	319
Bishop	521	704	884
Blue Canyon	531	1018	1114
Burbank	157	208	226
Eureka (U)	375	1474	1528
Fresno	291	360	438
Long Beach	145	188	227
Los Angeles (U)	138	171	169
Los Angeles	154	191	350
Mt. Shasta (R)	649	1234	1284
Oakland	262	614	584
Point Arguello (R)	330	1183	1046
Red Bluff	302	380	371
Sacramento (U)	249	344	374
Sacramento	303	400	377
Sandberg (R)	419	653	712
San Diego	154	180	208
San Francisco (U)	182	935	817
San Francisco	271	753	668
San Jose (U)	216	328	
Santa Maria	274	794	704
COLORADO			
Alamosa	938	1996	2147
Colorado Springs	728	1204	1472
Denver	703	1186	1291
Grand Junction	620	914	1129
Pueblo	654	967	1130
CONNECTICUT			
Bridgeport	705	1185	988
Hartford	819	1549	1237
Middletown	805	1529	
New Haven	707	1214	1094
DELAWARE			
Wilmington	672	1055	909
DIST. OF COLUMBIA			
Washington (U)	634	911	
Washington	599	840	769
FLORIDA			
Apalachicola (U)	192	225	169
Daytona Beach	117	133	75
Fort Myers	44	44	24
Jacksonville	199	242	156
Key West	4	4	0
Lakeland (U)	99	105	57
Miami	26	26	0
Miami Beach	14	14	0
Orlando	98	102	72
Pensacola (U)	221	258	211
Tallahassee	262	332	226
Tampa	98	100	60
West Palm Beach	31	31	6
GEORGIA			
Athens	424	575	532
Atlanta	471	643	559
Augusta	375	501	411
Columbus	382	488	420
Macon	352	446	368
Rome	509	709	659
Savannah	317	401	293
Thomasville (U)	261	317	223
IDAHO			
Boise	703	1168	1281
Idaho Falls 46W (R)	934	1799	1999
IDAHO (Cont'd.)			
Idaho Falls 42NW(R)	964	1928	2093
Lewiston	645	1198	1282
Pocatello	795	1405	1573
ILLINOIS			
Cairo (U)	510	672	713
Chicago (Midway)	674	1064	1141
Chicago (O'Hare)	740	1236	
Moline	774	1274	1247
Peoria	717	1199	1178
Rockford	778	1311	1366
Springfield	653	1015	1074
INDIANA			
Evansville	615	930	905
Ft. Wayne	723	1206	1251
Indianapolis	673	1106	1129
South Bend	741	1280	1266
IOWA			
Burlington	714	1141	1183
Des Moines	728	1127	1262
Dubuque	834	1467	1555
Sioux City	718	1220	1411
Waterloo	809	1428	1466
KANSAS			
Concordia	661	1003	1011
Dodge City	615	899	950
Goodland	721	1154	1278
Topeka	620	937	999
Wichita	581	793	880
KENTUCKY			
Lexington	621	958	902
Louisville	617	936	944
LOUISIANA			
Alexandria	344	407	
Baton Rouge	213	247	268
Lake Charles	202	231	229
New Orleans (Audubon Park)	139	147	
New Orleans	211	235	226
Shreveport	294	341	371
MAINE			
Caribou	1062	2423	2255
Greenville (U)	1029	2385	
Portland	859	1780	1575
MARYLAND			
Baltimore (U)	561	775	702
Baltimore	700	1044	897
Frederick	708	1137	997
MASSACHUSETTS			
Blue Hill Obs. (R)	773	1421	1201
Boston	691	1145	988
Nantucket	641	1164	1084
Pittsfield	895	1868	1658
Worcester	825	1608	1411
MICHIGAN			
Alpena	918	1941	1792
Detroit (City AP)	731	1221	1191
Detroit (M. Wayne Co.)	776	1329	1263
Detroit (Willow Run)	775	1281	1197
Escanaba (U)	858	1766	1852
Flint	835	1533	1425
Grand Rapids	763	1336	1410
Lansing	804	1448	1410
Marquette (U)	852	1866	1843
Muskegon	748	1352	1444
S. Ste. Marie	920	1980	2113
MINNESOTA			
Duluth	930	2182	2273
Internat. Falls	998	2169	2483
Minneapolis	891	1656	1792
Rochester	856	1609	1725
St. Cloud	891	1687	1914
MISSISSIPPI			
Jackson	340	413	380
Meridian	389	482	420
Vicksburg (U)	309	373	332
MISSOURI			
Columbia	601	903	956
Kansas City	550	796	902
St. Joseph	644	997	1059
St. Louis (RFC)	540	755	814
St. Louis	595	851	920
Springfield	609	911	868
MONTANA			
Billings	701	1280	1561
Butte	1131	2563	
Glasgow	780	1575	2060
Great Falls	734	1541	1721
Havre	779	1645	2002
Helena	837	1782	1987
Kalispell	858	2097	2250
Miles City	769	1450	1660
Missoula	925	2084	2097
NEBRASKA			
Grand Island	795	1345	1248
Lincoln (U)	675	1062	1108
Norfolk	746	1308	1390
North Platte	755	1296	1454
Omaha	685	1086	1205
Omaha N. Omaha AP	718	1184	1354
Scottsbluff	719	1270	1488
Valentine	759	1373	1621
NEVADA			
Elko	881	1594	1753
Ely	802	1557	1836
Las Vegas	229	257	446
Reno	718	1384	1514
Tonopah	681	1058	
Winnemucca	764	1395	1656
NEW HAMPSHIRE			
Concord	860	1674	1560
Mt. Washington Obs. (R)	1322	4401	4147
NEW JERSEY			
Atlantic City	630	965	839
Atlantic City (U)	608	903	
Newark	640	978	903
Trenton (U)	657	1025	897
NEW MEXICO			
Albuquerque	534	764	853
Clayton	601	894	1081
Raton	730	1200	1419
Roswell	564	782	838
Silver City	429	576	
NEW YORK			
Albany	894	1581	1374
Binghamton	900	1699	1569
Buffalo	832	1495	1429
New York (U)	646	978	803
New York (LaGuardia)	633	957	778
Rochester	836	1485	1328
Schenectady	854	1517	
Syracuse	875	1504	1325
NORTH CAROLINA			
Asheville (U)	565	880	848
Cape Hatteras (R)	335	438	351
Charlotte	504	696	571
Greensboro	537	792	738
Raleigh	510	737	635
Wilmington	362	497	365
Winston-Salem	529	766	675
NORTH DAKOTA			
Bismarck	877	1629	1953
Devils Lake (U)	986	1907	2199
Fargo	892	1579	1980
Grand Forks CAA	1009	1463	
Pembina	1051	1488	
Williston (U)	858	1690	1995
OHIO			
Akron	722	1264	1277
Cincinnati (U)	538	820	
Cincinnati	660	1104	972
Cincinnati Obs.	612	955	914
Cleveland	674	1183	1340
Columbus	721	1239	1084
Columbus (U)	627	1023	
Dayton	707	1168	1090
Mansfield	746	1329	1310
Sandusky (U)	681	1110	1069
Toledo	795	1315	1331
Youngstown	773	1433	1271
OKLAHOMA			
Oklahoma City	458	606	702
Tulsa	450	588	632
OREGON			
Astoria	478	1357	1450
Burns (U)	807	1622	1641
Eugene	507	1082	1148
Meacham	861	2071	1994
Medford	622	1120	1061
Pendleton	585	1058	1203
Portland (U)	441	819	904
Portland	515	958	1099
Roseburg	457	911	1039
Salem	542	1145	1099
Sexton Summit (R)	701	1576	1460
PENNSYLVANIA			
Allentown	753	1287	1136
Erie	731	1276	1232
Harrisburg	712	1138	994
Philadelphia (U)	628	911	
Philadelphia	681	1066	977
Pittsburgh (U)	630	1046	966
Pittsburgh	707	1311	1215
Reading (U)	659	1048	908
Scranton	848	1474	1377
Williamsport	777	1374	1212
RHODE ISLAND			
Block Island	645	1117	980
Providence	717	1284	1144
SOUTH CAROLINA			
Charleston (U)	276	340	244
Charleston	339	442	341
Columbia	378	504	429
Florence	376	507	393
Greenville-Spartanburg	401		
SOUTH DAKOTA			
Huron	835	1536	1638
Pierre	733	1255	
Rapid City	721	1298	1577
Sioux Falls	786	1391	1646
TENNESSEE			
Bristol	602	902	896
Chattanooga	486	652	671
Knoxville	548	736	705
Memphis (U)	421	537	510
Memphis	436	557	574
Nashville	508	703	683
Oak Ridge	562	805	762
TEXAS			
Abilene	299	369	465
Amarillo	508	690	835
Austin	172	192	256
Brownsville	28	28	66
Corpus Christi	85	89	120
Dallas	275	316	383
Del Rio (U)	112	114	
El Paso	333	398	452
Ft. Worth	280	326	389
Galveston (U)	99	103	138
Galveston	111	115	153
Houston (U)	108	113	165
Houston	157	165	174
Laredo	43	43	105
Lubbock	428	589	705
Midland	299	375	468
Port Arthur	193	213	247
San Angelo	239	275	356
San Antonio	164	173	238
Victoria	131	138	156
Waco	218	244	313
Wichita Falls	315	385	505
UTAH			
Milford	707	1182	1409
Salt Lake City	695	1096	1267
Wendover	709	1035	1242
VERMONT			
Burlington	997	1989	1584
VIRGINIA			
Lynchburg	588	906	814
Norfolk	449	634	544
Richmond	526	774	733
Roanoke	594	915	829
WASHINGTON			
Olympia	579	1444	1395
Seattle (U)	469	947	1098
Seattle	487	984	1229
Seattle-Tacoma	550	1280	1380
Spokane	804	1619	1644
Stampede Pass (R)	972	2716	2666
Tatoosh Island (R)	503	1810	1820
Walla Walla	582	1019	
Walla Walla (U)	553	961	1078
Yakima	709	1382	1434
WEST VIRGINIA			
Charleston	661	1051	896
Huntington (U)	643	1039	811
Parkersburg (U)	630	1024	930
WISCONSIN			
Green Bay	847	1553	1745
La Crosse	823	1432	1545
Madison	884	1584	1613
Milwaukee	804	1472	1611
WYOMING			
Casper	748	1436	1680
Cheyenne	751	1460	1736
Lander	826	1499	1804
Sheridan	765	1571	1762

Data from airport unless otherwise specified.
U indicates Urban, R indicates Rural, sites.

STORM SUMMARY

NOVEMBER 1962

STATE	TORNADOES					HAILSTORMS				WINDSTORMS				LIGHTNING				‡ HEAVY SNOWSTORMS AND BLIZZARDS				# ICE STORMS				∅ ALL OTHER			
	NUMBER	DAYS	DEATHS	INJURIES	†DAMAGE	DEATHS	INJURIES	†DAMAGE		DEATHS	INJURIES	†DAMAGE		DEATHS	INJURIES	†DAMAGE		DEATHS	INJURIES	†DAMAGE		DEATHS	INJURIES	†DAMAGE		DEATHS	INJURIES	†DAMAGE	
								PROPERTY	CROPS			PROPERTY	CROPS			PROPERTY	CROPS			PROPERTY	CROPS			PROPERTY	CROPS			PROPERTY	CROPS
Alabama *																													
Alaska *																													
Arizona *																													
Arkansas *																													
California *																													
Colorado *																													
Connecticut *																													
Delaware										0	0	6	3													0	0	3	2
Florida	2	2	0	1	5																					0	0	6	0
Georgia	1	1	0	0	4																								
Hawaii *																													
Idaho												5																	
Illinois *																													
Indiana *																													
Iowa *																													
Kansas *																													
Kentucky *																													
Louisiana						0	0	6	?																				
Maine										0	0	3	0					0	0	4	0					0	0	4	0
Maryland	1?	1?	0	0	4					0	0	5	3													0	0	3	2
Massachusetts										0	0	5	0													11	0	5	0
Michigan										0	0	5	0																
Minnesota *																													
Mississippi	1	1	0	0	5					0	0	?	0																
Missouri *																													
Montana										0	4	5	0																
Nebraska *																													
Nevada *																													
New Hampshire *																													
New Jersey										0	0	4	0																
New Mexico *																													
New York												5								5								5	
North Carolina										0	0	5	0													0	0	6	0
North Dakota *																													
Ohio *																													
Oklahoma																										0	0	3	2
Oregon										0	0	4	3													0	0	5	3
Guam, Pacific Area																										11	H	8	C
Pennsylvania										0	0	3	0																
Puerto Rico																										4	3	5	0
Rhode Island *																													
South Carolina										0	0	5	0																
South Dakota *																													
Tennessee														0	0	3	0												
Texas						0	0	0	?																	0	0	4	0
Utah *																													
Vermont *																													
U. S. Virgin Is. *																													
Virginia																										0	0	6	0
Washington										0	2	6																	
West Virginia *																													
Wisconsin *																													
Wyoming *																													

* No occurrence of storms or unusual weather phenomena.
‡ Includes heavy sleet storm.
# Freezing drizzle and freezing rain, commonly known as glaze.
∅ For breakdown of "All Others", and for detailed listing of other storms, see the U. S. Weather Bureau monthly publication STORM DATA.
° Includes Crop Damage
C Crop Damage
H Several hundred

† Storm damages are placed in categories varying from 1 to 9 as follows.
1 Less than $50
2 $50 to $500
3 $500 to $5,000
4 $5,000 to $50,000
5 $50,000 to $500,000
6 $500,000 to $5,000,000
7 $5,000,000 to $50,000,000
8 $50,000,000 to $500,000,000
9 $500,000,000 to $5,000,000,000

GENERAL SUMMARY OF RIVER AND FLOOD CONDITIONS

NOVEMBER 1962

Considerable damage resulted from the flooding in the Columbia Basin during November. The highest flow since December 1933 resulted on the North Fork of the Lewis River. Flooding reported elsewhere in continental United States was mostly minor.

ATLANTIC SLOPE DRAINAGE

Minor flooding occurred on the Roanoke, Cape Fear, and Neuse Rivers in eastern North Carolina from the general rains of 2 to 6 inches on the 8th and 9th. The Roanoke reached stages from 1 to 3 feet above flood stage at Altavista and Randolph, Va.; below John H. Kerr Dam, stages were well controlled and only small rises occurred. The Dan River crested at 11.5 feet or about one-half foot above bankfull stage at Danville, Va. The Neuse River crested from 4 to 6 feet above flood stage at Neuse and Smithfield, N. C., and from 2 to 4 feet above flood stage at Goldsboro and Kinston, N. C. The Cape Fear River crested at about bankfull stage at Fayetteville and about 7 feet above bankfull stage at Elizabethtown, N. C. No flood damage was reported.

The minor flooding on the Rocky River at Norwood, N. C., on the 10th and 11th was due to rainfall ranging from 2 to 3.5 inches. The river overflowed its banks by about 4 feet at this point. Substantial rapid rises occurred on the Yadkin - Pee Dee Rivers, which reached flood stage at Yadkin College, N. C., on the 10th. Along the South Carolina coast, the Atlantic storm from November 26 to December 3 raised the general tide levels by approximately 1.5 to 2.5 feet, causing some shallow flooding in the lowest areas at time of high water. The waves, reported as high as 6 feet, caused some spotty, moderate erosion in exposed unprotected beach areas. Several light poles on the open beach at Isle of Palms were washed out and some protective works under construction on Folly Beach were damaged

MISSISSIPPI SYSTEM

Red Basin. --The Sulphur River at Hagansport, Tex., reached flood stage for part of one day on the 22d and was above flood stage again at Hagansport from the 27th beyond the end of the month. Flood stage was reached at Naples, Tex., on the 22d and again on the 30th. Flooding was minor and grazing lands were lost to use for a few days; otherwise, little or no damage is known.

WEST GULF OF MEXICO DRAINAGE

Minor flooding occurred along the Lake Fork of the Sabine River at Quitman, Tex., on the 30th. The rainfall that produced this flooding occurred during the period from the 25th through the 28th with significant amounts on the 26th-27th. Little or no damage resulted except for the loss of use of grazing lands for a few days.

PACIFIC SLOPE DRAINAGE

Columbia Basin. --Although frequent storms moved across western Oregon during the first 19 days of November, precipitation amounts were light and generally widespread and the freezing level was relatively low. Consequently, tributary streams west of the Cascades remained essentially at base flow levels during this period. On the morning of the 19th, a very energetic cold front was lying in an east-west position over northwest Washington. The freezing level ahead of this front rose to 8,000 to 9,000 feet. Three to 4 inches of rain fell at low elevation stations and from 5 to 6 inches at high elevation mountain stations of western Washington. The cold front moved slowly eastward and southward into southwest Washington and northwest Oregon during the night of November 19, bringing with it heavy precipitation. By the morning of the 20th, Randle, Wash., on the Cowlitz River reported 3.4 inches. The river at that point rose 13 feet during the night. Four to 5 inches of rainfall was reported on the Lewis River Basin and by midday the highest flow since December 1933 was passing Merwin Dam on the North Fork Lewis River. Rainfall in extreme northern Oregon ranged from 1 1/2 to 2 inches by observation time on the 20th, with all streams rising rapidly. Heavy precipitation continued in extreme northern subbasins of the Willamette Valley until about noon with generally another inch falling at all stations. The flashy headwater streams of the northern Willamette Basin crested during the afternoon of the 20th. Flooding was confined to streams in southwest Washington and tributaries of the northern Willamette Basin. Only moderate rises were experienced on the main Willamette and lower Columbia River. Numerous small creeks west and east of the coast range overflowed their banks

Heavy rain occurred again in the Columbia Basin beginning during the night of the 24th on the Washington coast and continued until the morning of the 26th. Heavy precipitation occurred over the Willamette Basin in Oregon. Coast range stations reported 4 to 5 inches of precipitation; valley stations, 2 to 3 inches; and Cascade Range stations, slightly more than 3 inches. Coast Range Willamette headwater streams overflowed their banks again. All Cascade Range tributaries reported sharp rises, came close to, but did not exceed flood stage. Six- to 7-foot rises were experienced on the main stem Willamette at Corvallis and Albany, Oreg., and a 4- to 5-foot rise at Salem and Oregon City, but crest stages were generally 6 feet below flood stage at most points. Considerable damage resulted from the flooding.

GRAYS HARBOR AND PUGET SOUND DRAINAGE

Heavy rain on the 19th and 20th produced flooding on streams flowing into Grays Harbor and Puget Sound. Snowmelt was a strong factor on the 19th and 20th as the freezing level rose to 8,000 to 10,000 feet. Precipitation amounts at several stations exceeded 4 inches in 24 hours. Stampede Pass, Wash., at 4,000 feet elevation measured 7.89 inches in 24 hours. The Nooksack, Stillaguamish, Snohomish, and Snoqualmie exceeded flood stages by 3 to 4 feet, the Skagit and Chehalis by 1 to 2 feet. The Satsop, Wynoochee, and Skookumchuck exceeded bankfull stage by less than 0.5 foot. Considerable acreage was inundated and some livestock had to be moved to higher ground. Damage from flooding was mostly minor and negligible.

FLOOD STAGE DATA

(All dates in November unless otherwise specified)

River and station	Flood stage	Above flood stages -dates		Crest*	
		From—	To—	Stage	Date
	Ft.			Ft.	
ATLANTIC SLOPE DRAINAGE					
Roanoke: Altavista, Va.	18	10	11	22.3	10
Randolph, Va.	21	11	12	24.0	11
Neuse: Neuse, N. C.	14	10 24	14 24	#17.8 #14.1	11 24
Smithfield, N. C.	13	10 23	16 26	19.0 15.15	12-13 24
Goldsboro, N. C.	14	13	20	#18.0	18
Kinston, N. C.	14	17	23	#15.65	21
Cape Fear: Elizabethtown, N. C.	20	11	14	26.8	12
Yadkin: Yadkin College, N. C.	18	10	10	18.0	10
Rocky: Norwood, N. C.	16	10	11	19.8	10
MISSISSIPPI SYSTEM					
Red Basin					
Sulphur: Hagansport, Tex.	38	22 27	22 1/		
Naples, Tex.	22	22 30	22 1/		
WEST GULF OF MEXICO DRAINAGE					
Sabine: Quitman, Tex.	16	30	30	16.4	30
PACIFIC SLOPE DRAINAGE					
Columbia Basin					
Johnson Creek: Sycamore, Oreg.	8	20 25	21 26	12.5 H 9.7	20 26
PACIFIC SLOPE DRAINAGE (Cont'd.)					
Columbia Basin (Cont'd.)					
Santiam: Jefferson, Oreg.	15	20	21	H16.0	21
South Yamhill: Whiteson, Oreg.	38	26	28	43.4	26
Pudding: Aurora, Oreg.	20	26	30	H22.8	27
Tualatin: Dilley, Oreg.	12	20 25	22 28	13.4 14.0	21 26
Farmington, Oreg.	29	27	30	H30.4	
GRAYS HARBOR					
Skookumchuck: Centralia, Wash.	68	20	20	68.1	20
Satsop: Satsop, Wash.	34	20	20	#35.4	20
Wynoochee: Montesano, Wash.	83	20	20	#83.3	20
PUGET SOUND DRAINAGE					
Nooksack: Deming, Wash.	12	20	20	15.1	20
Skagit: Mt. Vernon, Wash.	21	20	21	23.3	20
Stillaguamish: Arlington, Wash.	16	20	20	19.6	20
Snoqualmie: Carnation, Wash.	54	20	20	57.0	20
Snohomish: Snohomish, Wash.	25	20	21	29.2	20

* Provisional
# Highest Stage Observed
H Crest from Hydrograph Analysis
1/ Continued at the end of month

RAWINSONDE DATA

Average monthly values

NOVEMBER 1962

ALBANY, N. Y.
1009 MB

Standard pressure surface (mb)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind Direction	Wind Speed
SURFACE	30	86	-2.3	85	323	2.1
1000	30	158			344	4.5
950	30	573	.5	66	348	6.0
900	30	1,003	-.8	61	334	7.6
850	30	1,459	-1.6	54	329	8.9
800	30	1,941	-2.4	47	305	9.9
750	30	2,451	-3.4	44	287	10.5
700	30	2,996	-5.9	44	276	13.4
650	30	3,574	-8.7	43	269	16.5
600	30	4,191	-12.2	38	267	19.0
550	30	4,851	-16.2	38	261	21.4
500	30	5,564	-20.8	40	264	25.3
450	30	6,333	-26.2	41	261	29.5
400	30	7,179	-32.4		262	34.8
350	29	8,103	-38.6		263	37.9
300	29	9,147	-45.6		268	42.4
250	29	10,346	-51.4		265	39.4
200	29	11,784	-54.5		263	42.2
175	29	12,638	-54.9		263	40.4
150	29	13,621	-56.1		262	38.1
125	29	14,775	-58.0		258	35.4
100	29	16,178	-59.1		262	31.5
80	29	17,577	-59.2		254	27.6
70	29	18,416	-59.3		252	24.1
60	29	19,378	-59.7		253	20.8
50	29	20,517	-59.9		258	20.4
40	29	21,910	-59.8		264	20.6
30	28	23,709	-59.9		269	20.6
25	28	24,848	-59.4		269	22.9
20	26	26,252	-58.4		271	26.8
15	20	28,043	-57.6		273	29.5
10	8	30,566	-55.9			

ALBUQUERQUE, N. MEX.
841 MB

Standard pressure surface (mb)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind Direction	Wind Speed
SURFACE	30	1,619	3.7	67	23	2.7
1000	30	184				
950	30	607				
900	30	1,054				
850	30	1,527				
800	30	2,024	6.3	50	306	1.7
750	30	2,549	4.0	49	296	8.2
700	30	3,110	1.1	46	290	11.7
650	30	3,698	-2.1	41	284	14.8
600	30	4,335	-5.9	39	281	18.3
550	30	5,003	-9.9		280	21.6
500	30	5,741	-14.9		278	23.5
450	30	6,522	-20.7		275	23.5
400	30	7,391	-27.2		277	25.1
350	30	8,340	-34.2		282	28.6
300	30	9,401	-42.1		282	33.6
250	30	10,612	-50.4		289	34.2
200	30	12,043	-58.0		287	38.5
175	30	12,880	-60.6		289	43.1
150	30	13,834	-63.2		287	39.2
125	30	14,949	-65.6		287	35.0
100	29	16,297	-67.0		292	24.1
80	28	17,642	-66.2		282	18.5
70	27	18,460	-65.1		283	14.8
60	25	19,397	-64.2		288	12.4
50	25	20,518	-62.6		281	11.3
40	25	21,904	-59.7		262	9.1
30	22	23,722	-56.3		267	7.6
25	21	24,885	-55.2		262	12.0
20	18	26,305	-54.4		273	16.9
15	12	28,156	-52.5		267	22.0
10						

AMARILLO, TEXAS
894 MB

Standard pressure surface (mb)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind Direction	Wind Speed
SURFACE	30	1,095	3.[illegible]	74	245	4.1
1000	30	172				
950	30	597				
900	30	1,050				
850	30	1,512	7.9	50	278	6.8
800	30	2,011	6.7	44	298	8.4
750	30	2,538	4.6	38	291	10.3
700	30	3,097	1.4	36	283	12.6
650	30	3,687	-2.4	37	281	17.7
600	30	4,321	-6.0	33	286	18.5
550	30	4,992	-10.2		287	22.3
500	30	5,725	-15.3		290	25.5
450	30	6,503	-20.9		291	29.0
400	30	7,372	-26.9		289	32.3
350	30	8,322	-34.2		286	33.4
300	30	9,381	-42.4		287	37.7
250	30	10,590	-51.2		288	43.5
200	30	12,016	-58.1		287	44.9
175	30	12,854	-60.2		287	48.2
150	30	13,810	-62.6		283	42.9
125	29	14,926	-64.7		282	40.6
100	28	16,282	-66.5		277	31.3
80	26	17,638	-66.1		276	22.7
70	23	18,467	-64.[illegible]		284	19.0
60	21	19,397	-63.6		287	13.8
50	19	20,514	-61.9		270	8.5
40	19	21,904	-59.1		273	11.1
30	16	23,717	-56.2		271	11.3
25	15	24,879	-55.2		276	9.7
20	13	26,312	-53.[illegible]		284	12.0
15	10	28,161	-52.9			
10						

ANCHORAGE, ALASKA
992 MB

Standard pressure surface (mb)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind Direction	Wind Speed
SURFACE	30	29	-5.7	77	12	1.9
1000	30	-32				
950	30	376	-2.9	64	24	5.6
900	30	802	-2.6	58	52	3.3
850	30	1,254	-4.6	58	99	4.7
800	30	1,729	-7.5	59	123	8.0
750	30	2,227	-10.7	56	134	9.3
700	30	2,756	-13.8	53	146	8.7
650	30	3,310	-17.6	49	155	8.7
600	30	3,910	-21.5	46	152	8.0
550	30	4,540	-26.0	45	170	8.2
500	30	5,229	-30.8	44	176	8.2
450	30	5,962	-36.3		195	7.4
400	30	6,774	-42.7		207	8.2
350	30	7,662	-49.1		211	6.6
300	30	8,662	-53.8		216	8.0
250	30	9,834	-52.8		217	9.1
200	30	11,285	-49.9		234	9.9
175	30	12,159	-49.6		234	9.3
150	30	13,168	-49.6		231	11.9
125	29	14,355	-49.7		243	13.2
100	29	15,816	-49.2		254	14.2
80	28	17,276	-49.1		260	15.3
70	28	18,156	-49.2		261	14.8
60	27	19,156	-49.5		268	15.0
50	27	20,349	-49.8		273	15.3
40	26	21,806	-49.7		284	14.2
30	24	23,690	-49.8		302	15.5
25	24	24,881	-50.4		313	14.6
20	22	26,331	-51.1		313	14.8
15	19	28,175	-51.2		290	19.6
10						

ANNETTE, ALASKA
999 MB

Standard pressure surface (mb)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind Direction	Wind Speed
SURFACE	29	37	6.5	83	136	8.4
1000	29	31			139	10.9
950	29	447	4.0	80	157	18.3
900	29	889	.7	82	173	21.6
850	29	1,346	-2.3	82	182	22.5
800	29	1,825	-5.4	78	192	24.1
750	29	2,326	-8.5	68	199	25.5
700	29	2,862	-11.9	62	204	25.3
650	29	3,421	-15.6	54	208	25.5
600	29	4,026	-19.8	51	210	28.6
550	29	4,659	-24.2	53	214	30.3
500	29	5,356	-29.3	51	218	33.0
450	29	6,092	-34.8		220	35.4
400	29	6,914	-40.6		226	39.4
350	29	7,811	-46.7		235	33.0
300	29	8,822	-51.1		241	36.3
250	28	10,003	-53.1		253	36.3
200	26	11,464	-52.3		253	29.0
175	25	12,321	-51.7		253	25.5
150	23	13,326	-52.2		254	24.9
125	22	14,488	-52.3		262	24.5
100	19	15,956	-52.8		266	22.3
80	19	17,394	-53.3		262	19.[illegible]
70	19	18,247	-53.9		270	17.7
60	19	19,240	-54.6		275	14.0
50	18	20,395	-54.3		277	11.9
40	18	21,825	-54.3		293	11.9
30	18	23,670	-54.2		330	9.9
25	18	24,839	-54.2		341	8.5
20	18	26,269	-54.1		346	12.0
15	16	28,128	-54.0			
10	9	30,728	-54.2			

ATHENS, GA.
990 MB

Standard pressure surface (mb)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind Direction	Wind Speed
SURFACE	30	246	6.5	85	359	1.4
1000	30	163				
950	30	587	8.9	66	50	4.5
900	30	1,035	7.7	66	360	2.7
850	30	1,505	6.1	61	305	7.2
800	30	2,001	4.4	51	300	8.7
750	30	2,523	2.3	49	287	12.2
700	30	3,081	-.2	45	281	14.6
650	30	3,666	-3.3	45	281	19.8
600	30	4,301	-6.6		272	25.8
550	30	4,968	-10.7	38	281	25.1
500	30	5,703	-15.5	40	279	28.2
450	30	6,483	-20.9	41	282	29.0
400	30	7,351	-27.1		274	35.0
350	30	8,299	-34.2		270	38.5
300	30	9,360	-42.2		270	44.9
250	30	10,571	-50.2		265	51.5
200	30	12,005	-56.2		266	53.4
175	30	12,850	-58.3		265	55.4
150	29	13,814	-60.9		267	48.8
125	29	14,941	-63.2		269	42.4
100	29	16,306	-65.3		269	32.6
80	29	17,665	-64.9		269	24.3
70	29	18,487	-63.7		262	17.9
60	29	19,432	-61.7		258	15.0
50	29	20,567	-60.0		262	12.4
40	29	21,966	-58.7		267	9.5
30	29	23,781	-56.6		269	9.3
25	29	24,941	-55.4		275	14.8
20	26	26,359	-54.7		273	22.0
15	22	28,209	-52.3		269	30.1
10	[illegible]	30,803	-49.4			
7						

BARROW, ALASKA
1009 MB

Standard pressure surface (mb)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind Direction	Wind Speed
SURFACE	30	8	-15.4	78	80	8.5
1000	30	74			89	12.2
950	30	463	-13.1	68	93	14.8
900	30	877	-12.4	56	96	12.8
850	30	1,314	-12.6	45	97	13.6
800	30	1,777	-13.7	42	98	12.6
750	30	2,266	-15.3	40	98	11.1
700	30	2,786	-18.0	39	99	9.7
650	30	3,335	-20.9	38	102	9.7
600	30	3,925	-24.4		104	7.6
550	30	4,551	-28.4		99	6.6
500	30	5,233	-32.9		104	6.2
450	30	5,959	-38.2		102	6.4
400	30	6,769	-44.0		110	6.6
350	30	7,654	-50.0		117	5.2
300	30	8,648	-55.4		128	2.5
250	30	9,806	-56.1		289	2.3
200	30	11,234	-53.2		269	7.8
175	29	12,092	-52.4		264	9.3
150	28	13,080	-52.2		264	12.4
125	28	14,261	-52.1		269	13.6
100	28	15,707	-51.8		267	18.1
80	27	17,149	-51.8		266	22.2
70	26	18,015	-51.5		270	23.9
60	25	19,003	-51.4		274	27.4
50	24	20,182	-50.9		276	31.5
40	22	21,617	-50.8		277	35.6
30	21	23,474	-51.1		277	46.2
25	20	24,666	-51.7		279	52.7
20	20	26,110	-52.5		282	59.1
15	19	27,977	-53.5		286	69.2
10	13	30,608	-55.5			
7	6	32,913	-58.5			

BARTER IS., ALASKA
1007 MB

Standard pressure surface (mb)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind Direction	Wind Speed
SURFACE	29	15	-13.6	69	96	10.7
1000	29	70			98	15.3
950	29	463	-12.1	63	105	18.3
900	29	876	-11.8	59	115	15.0
850	29	1,314	-12.0	51	115	13.0
800	29	1,776	-13.5	43	113	10.9
750	29	2,263	-15.4	40	114	10.3
700	29	2,784	-18.2		118	5.6
650	29	3,332	-21.2		105	4.1
600	29	3,921	-24.9		112	3.5
550	29	4,544	-29.0		104	2.7
500	29	5,224	-33.4		65	3.1
450	29	5,950	-38.4		47	2.7
400	29	6,757	-44.0		18	1.9
350	29	7,642	-49.7		334	2.9
300	29	8,638	-54.9		311	3.3
250	29	9,798	-55.6		309	5.8
200	29	11,230	-52.4		292	13.8
175	29	12,094	-52.2		287	14.4
150	29	13,091	-52.2		286	15.9
125	29	14,271	-52.1		289	16.9
100	29	15,716	-51.8		283	21.0
80	27	17,155	-51.8		282	24.1
70	27	18,021	-51.7		285	27.0
60	25	19,020	-52.0		286	30.7
50	23	20,201	-52.3		286	32.8
40	22	21,632	-52.8		289	39.2
30	21	23,480	-53.4		289	44.3
25	21	24,653	-53.7		292	47.2
20	18	26,125	-54.6		294	53.6
15	7	27,968	-56.0			
10						
7						

BETHEL, ALASKA
991 MB

Standard pressure surface (mb)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind Direction	Wind Speed
SURFACE	30	39	-9.5	79	32	7.6
1000	30	-33				
950	30	368	-6.3	74	60	11.1
900	30	790	-5.7	68	88	7.2
850	30	1,237	-7.1	64	123	5.6
800	30	1,709	-9.2	57	126	4.7
750	30	2,201	-12.1	55	114	4.1
700	30	2,731	-15.1	54	119	4.9
650	30	3,282	-18.5	54	121	4.9
600	30	3,881	-22.1	54	132	7.6
550	30	4,509	-26.2	51	150	7.0
500	30	5,199	-31.1	51	158	6.8
450	30	5,930	-36.5		157	5.1
400	30	6,746	-42.5		148	4.7
350	30	7,635	-48.8		135	6.0
300	30	8,635	-53.7		128	5.1
250	30	9,806	-52.6		191	5.4
200	29	11,264	-50.0		191	7.2
175	29	12,138	-49.7		217	8.4
150	29	13,146	-49.6		223	9.3
125	29	14,341	-49.0		237	11.5
100	29	15,807	-48.5		245	13.6
80	29	17,275	-48.3		249	13.0
70	29	18,151	-48.4		249	13.0
60	29	19,168	-48.7		254	12.8
50	29	20,367	-48.7		260	11.7
40	29	21,834	-48.5		261	8.7
30	28	23,726	-48.5		272	6.8
25	27	24,920	-49.3		290	6.6
20	26	26,389	-50.1		314	7.6
15	23	28,265	-51.2		312	11.9
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7						

BISMARCK, N. DAK.
956 MB

Standard pressure surface (mb)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind Direction	Wind Speed
SURFACE	30	505	-1.5	78		.0
1000	30	147				
950	30	562	-1.3	75	136	1.0
900	30	994	2.3	59	290	7.6
850	30	1,455	1.2	52	294	12.6
800	30	1,941	-.9	50	300	15.2
750	30	2,454	-3.1	47	298	17.7
700	30	2,998	-5.8	46	294	20.4
650	30	3,567	-9.6	45	292	25.5
600	30	4,189	-13.5	43	288	28.6
550	30	4,840	-17.7	40	287	30.1
500	30	5,553	-22.5	36	286	33.2
450	30	6,311	-27.7		287	33.8
400	30	7,156	-33.9		288	41.6
350	30	8,079	-40.6		285	45.1
300	30	9,113	-47.4		275	46.4
250	29	10,310	-53.7		277	44.9
200	29	11,732	-56.4		277	46.6
175	29	12,580	-55.9		284	49.2
150	29	13,559	-56.7		280	47.4
125	27	14,717	-57.7		282	38.9
100	25	16,117	-58.7		282	32.4
80	25	17,516	-59.5		284	26.0
70	25	18,361	-59.4		295	17.9
60	25	19,317	-59.6		293	15.9
50	25	20,458	-59.6		288	11.9
40	25	21,854	-59.3		292	11.9
30	22	23,668	-58.1		306	15.5
25	21	24,817	-58.0		308	16.7
20	17	26,240	-57.6		311	22.3
15	7	28,081	-56.4			
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7						

BOISE, IDAHO
920 MB

Standard pressure surface (mb)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind Direction	Wind Speed
SURFACE	30	868	2.4	80	134	3.3
1000	30	186				
950	30	608				
900	30	1,044	5.0	67	135	2.5
850	30	1,511	4.4	58	244	1.7
800	30	2,002	2.0	56	269	6.6
750	30	2,518	-.7	52	266	11.3
700	30	3,069	-4.1	50	266	15.5
650	30	3,647	-7.4	47	269	20.6
600	30	4,270	-10.9	43	269	23.5
550	30	4,929	-15.0	38	267	25.5
500	30	5,649	-19.5	39	265	29.5
450	30	6,417	-24.9		267	34.4
400	30	7,271	-31.0		268	37.3
350	30	8,205	-38.1		270	42.9
300	30	9,250	-45.6		271	46.8
250	30	10,444	-53.0		275	46.6
200	29	11,867	-57.7		277	43.1
175	29	12,707	-58.4		279	39.2
150	29	13,673	-58.9		282	36.7
125	29	14,810	-60.9		277	35.2
100	28	16,181	-62.3		279	29.1
80	27	17,558	-62.1		276	19.8
70	26	18,392	-61.7		281	16.1
60	24	19,349	-61.5		286	13.8
50	22	20,488	-61.0		294	10.7
40	20	21,879	-59.8		310	7.8
30	19	23,678	-58.7		304	8.4
25	18	24,830	-57.7		308	10.5
20	16	26,244	-56.2		308	9.5
15	13	28,097	-54.8			
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7						
5						

BROWNSVILLE, TEXAS
1017 MB

Standard pressure surface (mb)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind Direction	Wind Speed
SURFACE	30	7	15.6	85	342	2.1
1000	30	153	19.0	74	42	2.7
950	30	590	16.8	75	107	6.4
900	30	1,053	14.4	70	151	5.8
850	30	1,535	12.9	58	207	4.3
800	30	2,043	10.8	50	267	2.9
750	30	2,574	8.2	44	288	6.0
700	30	3,146	5.2	38	290	8.5
650	30	3,744	1.7	33	294	11.5
600	30	4,389	-1.7		288	12.4
550	30	5,069	-5.2		282	15.2
500	30	5,820	-10.4		283	18.5
450	30	6,614	-15.9		277	23.3
400	30	7,501	-22.3		279	30.5
350	30	8,467	-29.5		280	35.4
300	30	9,549	-37.8		281	42.6
250	30	10,780	-47.2		283	49.5
200	30	12,227	-56.5		281	50.1
175	30	13,065	-61.2		281	44.9
150	30	14,012	-65.1		277	43.1
125	30	15,113	-69.0		272	36.9
100	30	16,436	-72.2		271	25.6
80	28	17,747	-72.7		270	14.6
70	28	18,546	-69.6		253	6.4
60	28	19,465	-65.2		245	3.3
50	28	20,583	-62.2		193	2.3
40	28	21,975	-58.0		174	2.9
30	27	23,603	-54.1		243	2.1
25	26	24,977	-52.4		282	2.7
20	25	26,425	-50.4		269	5.1
15	24	28,317	-47.7		264	9.7
10	20	31,029	-44.1		271	22.5
7	16	33,435	-40.9			
5						

BUFFALO, N. Y.
994 MB

Standard pressure surface (mb)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind Direction	Wind Speed
SURFACE	30	218	.1	80	111	.6
1000	30	171				
950	30	586	1.4	66	295	2.7
900	30	1,020	-.4	63	295	4.1
850	30	1,476	-1.9	59	286	6.0
800	30	1,957	-3.4	55	282	6.8
750	30	2,463	-5.4	50	282	9.7
700	30	3,006	-7.7	46	286	12.0
650	30	3,577	-10.5	42	280	15.2
600	30	4,192	-13.9	43	279	17.7
550	30	4,845	-17.6		278	19.6
500	30	5,556	-22.2		272	24.3
450	30	6,314	-27.7	41	270	23.1
400	30	7,162	-33.6		265	30.7
350	30	8,087	-39.8		268	34.6
300	30	9,125	-46.6		265	40.2
250	30	10,318	-52.2		265	41.2
200	30	11,751	-55.1		265	37.3
175	30	12,604	-55.6		262	36.7
150	30	13,585	-56.6		263	36.3
125	30	14,738	-58.4		261	30.7
100	29	16,142	-59.4		263	27.2
80	29	17,537	-60.0		261	21.8
70	29	18,374	-60.5		259	19.4
60	27	19,330	-60.4		259	19.6
50	27	20,465	-60.4		263	17.7
40	26	21,853	-59.9		264	15.9
30	26	23,649	-59.7		267	19.4
25	25	24,794	-59.4		270	25.1
20	24	26,182	-59.0		275	23.7
15	18	27,984	-57.2		275	29.0
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7						
5						

BURRWOOD, LA.
1018 MB

Standard pressure surface (mb)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind Direction	Wind Speed
SURFACE	30	3	16.5	79	22	5.4
1000	30	158	16.5	71	22	6.0
950	30	596	13.2	71	25	3.7
900	30	1,046	11.1	65	316	3.1
850	30	1,523	10.2	46	290	5.6
800	30	2,026	8.5	37	293	7.6
750	30	2,559	6.2	41	290	9.7
700	30	3,120	3.2	38	287	13.2
650	30	3,716	-.1	35	291	14.8
600	30	4,355	-3.6		292	18.1
550	30	5,030	-7.6		286	21.0
500	30	5,772	-12.6		279	27.0
450	30	6,566	-17.7		274	34.4
400	30	7,443	-23.6		275	33.6
350	30	8,404	-30.9		269	41.0
300	30	9,480	-38.8		268	48.2
250	30	10,707	-47.3		269	52.7
200	30	12,154	-55.9		270	54.2
175	30	12,996	-59.7		264	50.7
150	28	13,946	-63.1		261	50.9
125	28	15,058	-66.3		264	46.8
100	28	16,400	-68.2		266	37.9
80	27	17,731	-68.7		266	22.5
70	27	18,543	-65.9		260	15.9
60	26	19,479	-63.0		244	10.7
50	25	20,610	-61.0		222	8.2
40	25	22,005	-58.1		224	3.9
30	25	23,829	-54.8		251	3.1
25	24	24,997	-52.2		269	4.1
20	24	26,446	-50.2		262	11.9
15	23	28,322	-48.7		273	22.2
10	21	30,998	-45.4		261	39.4
7	17	33,383	-42.5		256	48.6
5	6	35,705	-40.1			

CANTON IS., PACIFIC AREA
1010 MB

Standard pressure surface (mb)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind Direction	Wind Speed
SURFACE	30	4	26.4	75	56	8.5
1000	30	90	25.7	76	62	9.5
950	30	538	22.1	79	83	13.4
900	30	1,011	18.6	79	84	14.2
850	30	1,501	16.5	60	88	13.2
800	30	2,016	15.5	32	80	9.9
750	30	2,555	13.1	24	82	9.7
700	30	3,138	10.1	26	86	8.4
650	30	3,746	6.7	25	96	7.8
600	30	4,403	3.0		90	7.6
550	30	5,098	-1.1		102	7.0
500	30	5,858	-5.5		104	[illegible].8
450	30	6,673	-10.1		109	5.4
400	30	7,579	-15.8		139	4.5
350	30	8,573	-22.4		163	3.1
300	30	9,687	-31.0		193	5.1
250	30	10,954	-41.4		192	7.4
200	30	12,430	-53.9		205	11.1
175	30	13,276	-60.7		214	12.6
150	30	14,219	-68.4		225	12.4
125	29	15,286	-76.3		243	10.7
100	28	16,547	-83.5		249	9.3
80	28	17,797	-79.9		258	11.5
70	27	18,560	-73.7		266	16.5
60	26	19,471	-69.9		266	15.2
50	26	20,569	-65.6		97	5.1
40	26	21,935	-62.5		90	36.7
30	26	23,735	-56.5		91	58.1
25	25	24,899	-53.0		91	64.9
20	24	26,355	-47.7		94	62.6
15	24	28,282	-40.7		93	42.6
10	23	31,067	-37.5		259	10.1
7	22	33,545	-36.2		265	16.3
5	14	35,907	-33.4			

See reference note at end of table

RAWINSONDE DATA

Average monthly values

NOVEMBER 1962

CAPE HATTERAS, N. C.
1015 MB

Standard pressure surface (mb)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind Direction	Wind Speed
SURFACE	30	4	11.5	83	358	6.6
1000	30	131	11.3	75	4	10.1
950	30	556	10.0	74	7	9.5
900	30	1,008	7.6	72	348	5.6
850	30	1,478	5.6	66	310	4.9
800	30	1,973	4.0	56	285	7.0
750	30	2,494	2.4	45	267	10.5
700	30	3,052	- .3	44	264	12.6
650	30	3,637	- 3.3	43	268	13.6
600	30	4,271	- 6.7	40	264	16.9
550	30	4,944	-10.7	39	264	21.0
500	30	5,673	-15.6	41	261	25.6
450	30	6,453	-20.7	38	258	31.5
400	30	7,321	-27.1	38	261	35.6
350	29	8,269	-34.3		259	41.4
300	29	9,331	-41.6		256	45.5
250	28	10,551	-49.2		259	54.6
200	27	12,003	-55.9		257	53.8
175	27	12,848	-57.9		260	55.8
150	27	13,815	-60.0		260	49.7
125	27	14,945	-62.7		263	46.2
100	27	16,318	-63.1		262	33.0
80	26	17,692	-63.0		258	28.6
70	25	18,520	-61.9		254	24.1
60	24	19,467	-60.6		260	18.3
50	23	20,608	-59.4		266	17.1
40	22	22,013	-58.1		270	18.1
30	22	23,830	-56.8		263	17.9
25	22	24,988	-55.9		271	19.8
20	22	26,412	-54.7		275	27.4
15	21	28,268	-52.2		269	36.5
10	19	30,915	-47.9		271	46.0
7	11	33,271	-45.4			
5						

CARIBOU, ME.
995 MB

Standard pressure surface (mb)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind Direction	Wind Speed
SURFACE	30	191	- 3.8	88	316	4.1
1000	30	149				
950	30	556	- 2.3	76	336	8.0
900	30	986	- 3.2	72	341	8.2
850	30	1,437	- 3.5	66	313	8.2
800	30	1,917	- 3.9	57	300	10.7
750	30	2,425	- 5.2	46	287	11.7
700	30	2,965	- 7.1	40	275	13.4
650	30	3,538	-10.0	41	269	15.7
600	30	4,155	-12.9	42	262	21.0
550	30	4,811	-16.9	43	257	23.7
500	30	5,522	-21.7	41	258	26.2
450	30	6,290	-27.2	43	254	29.3
400	30	7,129	-33.2		251	32.6
350	30	8,055	-39.6		251	39.4
300	30	9,094	-46.5		253	40.4
250	30	10,287	-52.5		252	41.6
200	30	11,720	-54.3		252	42.7
175	30	12,576	-54.3		252	41.0
150	29	13,563	-55.0		252	38.5
125	29	14,725	-56.1		254	33.0
100	29	16,141	-56.7		251	28.4
80	28	17,551	-57.8		249	26.2
70	28	18,398	-57.9		253	23.3
60	28	19,364	-58.9		252	22.9
50	28	20,507	-59.1		252	18.5
40	27	21,903	-60.0		253	25.3
30	26	23,694	-60.2		263	21.6
25	25	24,833	-60.2		260	23.9
20	25	26,225	-60.3		267	27.0
15	21	27,979	-59.7		276	29.5
10	18	30,556	-56.6		267	48.4
7	14	32,784	-53.9			
5	7	34,883	-52.6			

CHARLESTON, S. C.
1017 MB

Standard pressure surface (mb)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind Direction	Wind Speed
SURFACE	30	13	8.2	88	353	3.7
1000	30	150	10.4	76	359	7.4
950	30	579	10.1	69	356	8.0
900	30	1,027	9.3	60	330	7.0
850	30	1,500	7.9	54	299	7.8
800	30	1,999	6.0	48	295	10.7
750	30	2,527	3.8	43	282	13.8
700	30	3,085	1.1	42	291	17.3
650	30	3,677	- 2.3	39	284	20.2
600	30	4,310	- 5.7	33	281	24.7
550	30	4,985	- 9.8		274	27.2
500	30	5,717	-14.6	32	277	31.5
450	30	6,501	-20.1	33	276	36.5
400	30	7,371	-26.2		277	39.8
350	30	8,325	-33.0		269	44.5
300	30	[illegible]	-40.8		271	52.3
250	30	10,612	-49.0		270	57.9
200	30	12,057	-55.1		269	60.8
175	30	12,905	-58.0		267	57.1
150	30	13,870	-61.1		269	53.6
125	30	14,997	-63.6		265	47.8
100	30	16,361	-65.5		266	37.1
80	30	17,721	-65.0		261	26.4
70	30	18,549	-63.3		261	18.7
60	30	19,493	-61.0		267	16.1
50	30	20,631	-59.7		257	12.8
40	30	22,031	-58.0		272	9.7
30	29	23,853	-55.6		259	11.1
25	25	25,015	-53.9		272	13.6
20	23	26,458	-52.4		274	18.7
15	11	28,331	-50.4			

COLD BAY, ALASKA
988 MB

Standard pressure surface (mb)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind Direction	Wind Speed
SURFACE	30	30	2.1	89	325	2.5
1000	30	- 72				
950	30	344	.3	77	357	5.2
900	30	773	- 2.4	76	309	6.8
850	30	1,225	- 5.2	74	302	4.7
800	30	1,698	- 8.2	74	286	7.0
750	30	2,196	-11.3	67	288	5.8
700	30	2,723	-14.5	63	283	7.4
650	30	3,280	-18.3	61	277	6.8
600	30	3,873	-22.5	60	286	7.6
550	30	4,506	-27.0	55	263	6.6
500	30	5,188	-31.7	51	255	7.2
450	30	5,922	-37.1	52	264	7.2
400	30	6,730	-42.4		261	7.8
350	30	7,622	-47.1		272	10.5
300	30	8,634	-50.7		260	16.7
250	30	9,821	-50.4		258	19.0
200	30	11,282	-49.2		257	19.0
175	30	12,159	-48.7		250	22.3
150	29	13,178	-48.7		245	21.0
125	28	14,370	-48.8		247	19.6
100	28	[illegible]	-48.5		256	15.5
80	27	17,308	-49.1		251	[illegible]
70	26	18,182	-49.8		254	14.6
60	26	19,192	-50.4		258	13.2
50	26	20,382	-50.4		240	4.9
40	26	21,834	-50.8		184	.8
30	25	23,703	-50.5		44	2.7
25	24	24,884	-50.7		68	7.0
20	23	26,338	-50.9		56	7.8
15	21	28,211	-50.5		58	10.9
10	16	30,879	-49.2		26	8.5
7	12	33,213	-48.7		4	16.7
5	6	35,438	-51.0			

COLUMBIA, MO.
991 MB

Standard pressure surface (mb)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind Direction	Wind Speed
SURFACE	30	238	3.2	79	130	1.9
1000	30	165				
950	30	582	5.4	[illegible]	204	4.1
900	30	1,023	4.0	[illegible]	266	6.4
850	30	1,487	2.7	52	279	8.7
800	30	1,976	1.2	[illegible]	283	10.1
750	30	2,489	- .7	44	272	11.3
700	30	3,043	- 3.5	45	285	13.8
650	30	3,620	- 6.8	43	287	16.3
600	30	4,246	-10.2	42	287	20.4
550	30	4,905	-14.5	39	288	24.1
500	30	5,627	-19.3	37	290	27.6
450	30	6,394	-24.7		288	27.8
400	30	7,251	-30.8		287	27.4
350	30	8,185	-37.6		289	30.5
300	30	9,232	-44.8		290	37.7
250	30	10,433	-51.3		289	46.2
200	29	11,867	-56.1		287	46.6
175	29	12,712	-57.9		285	45.3
150	29	13,682	-59.3		284	42.6
125	29	14,816	-62.0		282	38.1
100	29	[illegible]	-63.2		281	32.3
80	29	17,562	-63.7		278	25.1
70	[illegible]	18,387	-63.0		278	21.4
60	28	19,336	-62.0		277	17.7
50	28	20,467	-61.1		271	15.5
40	27	21,856	-59.8		268	13.8
30	24	23,664	-58.4		278	15.3
25	20	24,815	-57.5		289	15.7
20	12	26,224	-56.7		323	14.2

DAYTON, OHIO
984 MB

Standard pressure surface (mb)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind Direction	Wind Speed
SURFACE	30	297	2.5	81	17	1.4
1000	30	165				
950	30	582	3.9	68	231	.6
900	30	1,021	2.5	64	306	4.9
850	30	1,482	1.3	54	292	7.2
800	30	1,968	- .4	48	278	8.9
750	30	2,483	- 2.6	46	276	10.5
700	30	3,027	- 5.0	46	281	13.4
650	30	3,602	- 8.1	45	285	18.1
600	30	4,225	-11.5	46	280	21.2
550	30	4,882	-15.7	44	277	23.5
500	30	5,600	-20.4		273	24.9
450	30	6,365	-25.5		273	28.2
400	30	7,217	-31.4		273	32.1
350	30	8,150	-37.9		271	36.7
300	30	9,195	-45.2		269	41.0
250	30	10,392	-52.0		270	48.4
200	30	11,820	-55.8		272	45.7
175	30	12,669	-56.0		269	43.9
150	30	13,645	-57.9		267	39.8
125	30	14,787	-60.1		271	33.4
100	30	16,172	-61.6		269	30.1
80	29	17,556	-61.7		266	21.2
70	29	18,390	-61.3		266	18.5
60	27	19,341	-60.7		264	17.3
50	26	20,476	-60.2		265	17.1
40	25	21,873	-58.8		266	19.2
30	25	23,680	-58.5		270	20.0
25	25	24,828	-57.9		271	22.2
20	24	26,236	-57.2		275	25.5
15	19	28,064	-55.9		280	26.0
10	5	30,671	-53.6			

DENVER, COLO.
839 MB

Standard pressure surface (mb)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind Direction	Wind Speed
SURFACE	30	1,611	- .3	62	205	3.3
1000	30	186				
950	30	605				
900	30	1,047				
850	30	1,510				
800	30	2,003	5.7	45	275	6.4
750	30	2,529	3.7	39	291	10.7
700	30	3,086	.1	38	304	11.3
650	30	3,674	- 3.9	40	306	14.8
600	30	4,303	- 8.0	37	306	19.4
550	30	4,969	-12.5	36	303	21.0
500	30	5,695	-17.3	35	301	24.9
450	30	6,469	-22.8		295	31.5
400	30	7,329	-29.2		293	34.6
350	30	8,269	-36.7		290	35.9
300	30	9,318	-45.0		287	41.6
250	30	10,516	-52.3		287	46.2
200	30	11,937	-58.5		284	48.4
175	30	12,773	-59.7		284	46.6
150	30	13,734	-61.2		284	40.6
125	30	14,859	-63.5		286	35.2
100	29	16,223	-64.5		284	26.4
80	29	17,589	-63.7		277	19.2
70	28	18,414	-62.8		276	15.7
60	28	19,363	-62.4		278	12.0
50	26	20,495	-61.3		283	8.7
40	24	21,886	-60.1		272	6.2
30	22	23,693	-58.0		297	12.0
25	18	24,852	-56.9		299	11.7
20	12	26,285	-54.9		314	11.3

DODGE CITY, KANS.
928 MB

Standard pressure surface (mb)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind Direction	Wind Speed
SURFACE	30	792	2.7	81	249	2.3
1000	30	177				
950	30	598				
900	30	1,038	6.8	58	262	4.7
850	30	1,508	7.1	47	297	7.4
800	30	2,005	5.5	40	305	9.7
750	30	2,527	3.5	38	301	11.5
700	30	3,087	.2	36	298	14.2
650	30	3,670	- 3.3	32	298	15.5
600	30	4,306	- 7.3	31	295	19.0
550	30	4,972	-11.3		297	23.9
500	30	5,704	-16.4		295	27.4
450	30	6,481	-22.1		293	30.5
400	30	7,345	-28.6		291	34.2
350	30	8,288	-35.6		286	41.6
300	30	9,342	-43.6		282	45.5
250	30	10,547	-51.1		287	54.6
200	29	11,970	-57.2		282	49.2
175	28	12,813	-59.7		275	50.1
150	28	13,774	-60.8		280	42.9
125	28	14,901	-63.3		281	37.7
100	28	16,265	-64.7		278	29.3
80	28	17,627	-64.5		275	25.3
70	28	18,452	-63.5		281	22.3
60	27	19,394	-62.5		269	18.8
50	26	20,524	-61.0		270	15.7
40	25	21,919	-59.2		276	15.0
30	22	23,739	-57.1		282	14.8
25	18	24,902	-55.4		274	19.6
20	9	26,345	-53.8			

EL PASO, TEXAS
885 MB

Standard pressure surface (mb)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind Direction	Wind Speed
SURFACE	30	1,193	6.9	62	30	2.5
1000	30	170				
950	30	599				
900	30	1,055				
850	30	1,526	11.4	41	35	1.4
800	30	2,031	9.5	38	241	3.9
750	30	2,561	6.5	38	262	8.4
700	30	3,126	3.3	38	262	10.1
650	30	3,721	- .4	36	258	13.4
600	30	4,359	- 3.9		262	16.1
550	30	5,031	- 8.2		269	18.5
500	30	5,773	-13.6		269	20.2
450	30	6,560	-19.4		269	23.9
400	30	7,432	-25.7		267	26.6
350	30	8,285	-32.8		269	31.3
300	30	9,453	-40.6		273	36.3
250	30	10,672	-49.3		280	45.7
200	30	12,106	-57.6		280	51.7
175	30	12,942	-61.5		280	49.7
150	30	13,890	-64.6		277	43.9
125	30	14,995	-67.8		274	38.1
100	30	16,333	-69.2		276	28.4
80	30	17,664	-69.0		276	19.4
70	29	18,477	-67.5		276	14.8
60	28	19,399	-65.2		285	10.7
50	27	20,516	-62.7		270	8.7
40	25	21,904	-59.1		257	9.5
30	24	23,723	-56.1		260	13.8
25	23	24,888	-55.2		262	17.1
20	21	26,311	-53.9		268	22.0
15	12	28,150	-52.8			

ELY, NEV.
811 MB

Standard pressure surface (mb)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind Direction	Wind Speed
SURFACE	30	1,908	- 3.1	66	[illegible]	7.0
1000	30	220				
950	30	642				
900	30	1,077				
850	30	1,537				
800	30	2,022	2.3	55	[illegible]	6.4
750	30	2,547	2.6	48	215	2.7
700	30	3,100	- .2	42	269	8.4
650	30	3,688	- 3.4	36	273	12.4
600	30	4,318	- 7.4		280	14.2
550	30	4,984	-11.9		284	16.7
500	30	5,713	-16.5		281	20.0
450	30	6,486	-22.2		278	22.2
400	30	7,351	-28.8		275	23.5
350	30	8,293	-35.7		284	23.5
300	29	9,348	-43.7		278	27.0
250	29	10,551	-51.7		270	26.4
200	29	11,975	-58.1		272	29.1
175	28	12,816	-59.6		271	32.8
150	28	13,776	-61.1		271	30.5
125	28	14,903	-63.2		274	29.3
100	28	16,267	-65.4		274	22.2
80	28	17,626	-64.8		[illegible]	16.3
70	28	18,453	-63.4		280	14.2
60	28	19,393	-62.7		277	10.9
50	28	20,520	-61.4		294	8.4
40	27	21,911	-59.9		[illegible]	5.6
30	23	23,715	-57.5		292	5.8
25	23	24,870	-56.1		294	6.0
20	21	26,289	-55.1		324	3.9
15	16	28,160	-53.4		298	3.5
10	6	30,795	-50.9			

FAIRBANKS, ALASKA
986 MB

Standard pressure surface (mb)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind Direction	Wind Speed
SURFACE	30	135	-16.2	75	19	2.7
1000	30	24				
950	30	416	- 9.6	59	81	8.4
900	30	834	- 9.0	62	105	11.5
850	30	1,277	- 8.9	60	113	8.2
800	30	1,746	- 9.7	51	126	6.0
750	30	2,241	-12.2	48	150	5.1
700	30	2,767	-15.4	45	156	4.7
650	30	3,319	-19.0	40	164	5.4
600	30	3,915	-23.0	38	176	4.5
550	30	4,540	-27.6	36	209	4.9
500	30	5,225	-32.5		223	4.5
450	30	5,953	-37.7		237	3.3
400	30	6,764	-43.4		246	5.1
350	30	7,650	-49.2		243	6.0
300	30	8,649	-54.4		232	5.1
250	30	9,818	-53.2		241	7.2
200	30	11,265	-50.7		243	8.0
175	29	12,139	-51.0		250	9.3
150	29	13,141	-51.2		254	11.7
125	29	14,327	-50.7		255	13.6
100	29	15,781	-50.4		260	15.2
80	29	17,238	-50.0		266	17.5
70	29	18,111	-50.3		272	19.6
60	28	19,126	-50.4		278	20.8
50	28	20,315	-50.4		282	21.6
40	28	21,770	-50.4		290	24.1
30	28	23,644	-51.5		294	28.0
25	27	24,811	-52.4		301	32.3
20	27	26,253	-52.8		306	35.4
15	21	28,131	-52.7		312	36.5
10	12	30,790	-52.1			
7	5	32,963	-52.4			
5						

FLINT, MICH.
993 MB

Standard pressure surface (mb)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind Direction	Wind Speed
SURFACE	30	234	- .3	90	229	.6
1000	30	174				
950	30	589	2.4	66	262	1.9
900	30	1,025	.7	60	294	4.7
850	30	1,483	- .7	51	292	5.8
800	30	1,966	- 2.7	48	278	8.0
750	30	2,475	- 4.7	45	281	10.3
700	30	3,016	- 7.1	40	277	13.8
650	30	3,588	-10.2	41	276	16.3
600	30	4,204	-13.8		283	18.8
550	30	4,858	-17.8		278	21.0
500	30	5,567	-22.4	38	273	24.5
450	30	6,330	-27.9	38	272	27.2
400	30	7,169	-33.9	36	272	33.2
350	30	8,092	-40.2		273	38.9
300	30	9,127	-47.1		273	42.4
250	30	10,319	-52.9		275	43.9
200	30	11,745	-55.2		274	42.9
175	30	12,597	-55.2		273	42.0
150	29	13,575	-56.6		274	38.3
125	29	14,725	-58.8		273	33.2
100	29	16,122	-59.5		273	28.4
80	28	17,516	-59.9		269	21.0
70	28	18,356	-59.9		267	20.2
60	28	19,314	-59.9		262	17.5
50	28	20,453	-60.0		266	15.3
40	28	21,847	-59.8		269	14.8
30	28	23,648	-59.2		274	19.2
25	26	24,799	-58.6		277	20.8
20	25	26,203	-57.9		276	23.1
15	16	28,066	-55.2		269	29.0

FORT WORTH, TEXAS
999 MB

Standard pressure surface (mb)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind Direction	Wind Speed
SURFACE	29	180	9.7	81	339	1.0
1000	29	174			359	1.9
950	29	604	11.0	66	237	4.5
900	29	1,054	10.1	59	260	5.8
850	29	1,529	8.7	53	288	6.8
800	29	2,028	6.8	49	292	8.9
750	29	2,559	4.2	44	294	11.1
700	29	3,115	1.5	40	300	12.6
650	29	3,710	- 1.6	34	297	15.5
600	29	4,342	- 5.2		293	20.4
550	29	5,013	- 9.9		294	23.3
500	29	5,749	-15.1		292	27.2
450	29	6,536	-20.6		290	31.7
400	29	7,399	-26.8		289	35.4
350	29	8,350	-33.7		289	39.4
300	29	9,413	-41.8		287	42.4
250	29	10,625	-50.3		287	46.6
200	29	12,059	-56.8		285	51.5
175	29	12,899	-60.0		285	46.8
150	29	13,855	-63.0		284	43.5
125	29	14,969	-65.9		280	37.1
100	28	16,317	-67.0		279	24.9
80	28	17,662	-67.2		277	21.4
70	28	18,475	-65.8		276	17.1
60	27	19,408	-64.3		270	13.6
50	26	20,530	-61.5		260	11.9
40	25	21,923	-59.1		256	11.9
30	24	23,737	-56.2		272	12.4
25	23	24,904	-54.6		272	15.2
20	22	26,343	-53.3		270	19.4
15	18	28,188	-52.3		271	26.4

GLASGOW, MONT.
933 MB

Standard pressure surface (mb)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind Direction	Wind Speed
SURFACE	30	696	1.1	78	125	.8
1000	30	134				
950	30	551				
900	30	988	3.6	59	269	7.4
850	30	1,451	2.2	54	282	14.6
800	30	1,939	- .4	[illegible]	287	19.4
750	30	2,449	[illegible]	51	288	21.8
700	30	2,996	- 6.5	[illegible]	290	23.5
650	30	3,565	-10.2	52	289	26.0
600	30	[illegible]	-14.1	49	285	28.4
550	30	4,833	-18.5	48	282	30.1
500	30	5,543	-23.3	42	283	35.2
450	30	6,297	-28.6	44	285	40.4
400	30	7,139	-34.6		288	45.3
350	30	8,058	-41.0		295	49.9
300	30	9,090	-47.8		291	53.0
250	30	10,275	-54.2		291	55.2
200	30	11,695	-56.8		287	53.2
175	30	12,540	-56.6		285	48.8
150	30	13,517	-57.0		284	46.8
125	30	14,671	-58.0		286	39.6
100	30	16,070	-58.2		284	30.5
80	28	17,467	-59.2		287	23.3
70	28	18,306	-59.6		291	19.2
60	25	19,263	-59.5		295	16.1
50	22	20,402	-59.8		296	13.4
40	21	21,795	-59.2		303	14.4
30	16	23,594	-58.7		304	18.7
25	14	24,746	-58.6		[illegible]	22.0
20	12	26,157	-57.9			
15	5	27,902	-59.4			

GRAND JUNCTION, COLO.
855 MB

Standard pressure surface (mb)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind Direction	Wind Speed
SURFACE	30	1,474	2.4	63	107	3.1
1000	30	[illegible]				
950	30	611				
900	30	1,057				
850	30	1,524			114	[illegible]
800	30	2,020	5.4	46	[illegible]	3.5
750	30	2,542	2.8	46	238	3.9
700	30	3,100	- .7	47	265	9.5
650	30	3,687	- 4.1	43	279	12.8
600	30	[illegible]	- 7.6	39	289	15.9
550	30	[illegible]	-11.9	37	291	19.0
500	30	5,711	-16.7		284	22.5
450	30	6,486	-22.3		285	27.0
400	30	7,348	-28.8		280	29.7
350	30	8,289	-36.1		279	31.9
300	30	9,342	-43.8		279	37.1
250	30	10,544	-51.9		284	41.8
200	30	11,968	-57.6		284	44.3
175	30	12,807	-59.6		286	41.0
150	30	13,768	-61.3		285	37.9
125	30	14,892	-63.8		282	33.8
100	30	16,253	-65.9		285	26.8
80	30	17,610	-64.7		279	19.4
70	30	18,441	-63.5		[illegible]	16.1
60	30	19,375	-62.8		285	12.8
50	30	20,501	-61.7		287	8.0
40	30	21,887	-59.9		296	5.8
30	28	23,693	-57.7		294	8.0
25	27	24,851	-56.4		283	10.5
20	26	26,275	-55.1		[illegible]	11.5
15	26	28,117	-53.9		286	20.2
10	12	30,725	-52.4		[illegible]	22.7
7	13	33,056	-49.3		285	39.2
5	7	[illegible]	-46.7			

See reference note at end of table

RAWINSONDE DATA

Average monthly values

GREAT FALLS, MONT.
886 MB

Standard pressure surface (mb.)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind	
					Direction	Speed
SURFACE	30	1,123	2.5	60	223	10.7
1000	30	135				
950	30	557				
900	30	998				
850	30	1,464	4.0	47	237	21.8
800	30	1,956	1.4	49	255	21.0
750	30	2,469	- 2.1	52	267	23.7
700	30	3,017	- 5.4	52	274	26.4
650	30	3,589	- 9.2	53	274	29.0
600	30	4,211	-12.9	46	276	29.7
550	30	4,866	-16.9	40	279	32.3
500	30	5,581	-21.7	38	277	34.0
450	29	6,345	-27.2		278	35.4
400	29	7,192	-33.1		277	42.0
350	29	8,119	-39.7		279	45.9
300	29	9,155	-47.2		281	55.2
250	29	10,243	-53.6		283	52.5
200	29	11,763	-57.5		276	53.6
175	28	12,595	-57.2		275	52.1
150	27	13,571	-57.0		276	45.9
125	27	14,722	-58.0		273	35.6
100	27	16,126	-58.3		278	29.0
80	26	17,534	-58.7		275	21.6
70	25	18,275	-58.9		274	17.9
60	24	19,337	-59.1		292	12.6
50	19	20,481	-58.5		296	14.4
40	19	21,887	-57.7		307	13.2
30	18	23,705	-57.7		318	11.9
25	17	24,863	-57.3		330	12.4
20	16	26,270	-57.1		324	14.0
15	13	28,137	-55.6		326	20.4
10	12	30,711	-54.6		310	22.5
7	7	33,056	-52.6			
5						

GREEN BAY, WIS.
994 MB

Standard pressure surface (mb.)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind	
					Direction	Speed
SURFACE	30	210	.3	84	279	1.7
1000	30	163				
950	30	579	.7	68	263	6.2
900	30	1,010	- 1.0	63	263	8.0
850	30	1,465	- 2.3	59	255	9.9
800	30	1,945	- 3.4	48	264	10.5
750	30	2,453	- 5.5	45	277	13.2
700	30	2,992	- 8.1	47	275	15.3
650	30	3,561	-10.8	43	279	18.8
600	30	4,176	-14.4	40	281	22.3
550	30	4,828	-18.2		284	24.1
500	30	5,537	-23.0		281	28.2
450	30	6,297	-28.1		286	30.3
400	30	7,135	-34.4		286	35.2
350	30	8,057	-40.6		288	39.4
300	30	9,092	-47.0		285	44.3
250	30	10,282	-53.0		287	45.1
200	30	11,712	-54.8		286	41.6
175	30	12,565	-55.2		285	41.6
150	30	13,548	-55.8		284	40.8
125	30	14,706	-57.3		285	35.8
100	30	16,110	-59.0		282	29.7
80	30	17,508	-59.3		274	23.9
70	30	18,346	-59.6		274	20.2
60	29	19,308	-59.9		277	18.3
50	29	20,446	-60.0		278	16.3
40	27	21,840	-59.5		279	14.8
30	24	23,657	-59.1		288	15.5
25	19	24,815	-57.9		284	16.7
20	9	26,267	-56.1			
15						
10						
7						
5						

GREENSBORO, N. C.
987 MB

Standard pressure surface (mb.)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind	
					Direction	Speed
SURFACE	30	273	4.5	86	336	2.9
1000	30	161				
950	30	585	6.1	68	350	7.2
900	30	1,025	5.4	68	355	7.8
850	30	1,492	4.1	64	339	8.5
800	30	1,984	2.6	52	313	8.4
750	30	2,506	.8	49	295	10.1
700	30	3,057	- 1.7	47	280	13.2
650	30	3,643	- 4.8	45	277	15.7
600	30	4,270	- 8.4	44	277	20.2
550	30	4,935	-12.7	42	273	24.1
500	30	5,661	-17.2		273	27.4
450	29	6,433	-22.6	44	271	33.2
400	29	7,295	-28.5	46	272	35.9
350	29	8,238	-35.0		271	43.9
300	29	9,297	-42.3		271	50.1
250	29	10,509	-49.9		272	57.3
200	29	11,951	-54.8		267	57.9
175	29	12,800	-57.1		265	49.9
150	29	13,769	-59.9		265	49.9
125	29	14,902	-62.0		263	43.1
100	28	16,280	-63.4		259	30.9
80	28	17,649	-63.4		258	26.0
70	28	18,484	-62.2		256	24.3
60	28	19,428	-61.0		254	21.2
50	28	20,565	-60.1		264	16.1
40	26	21,962	-58.8		264	15.0
30	26	23,777	-57.4		270	20.8
25	25	24,932	-56.5		271	24.5
20	24	26,347	-55.7		276	29.5
15	23	28,187	-53.7		273	39.1
10	8	30,831	-49.0			
7						
5						

GUAM, MARIANA IS.
998 MB

Standard pressure surface (mb.)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind	
					Direction	Speed
SURFACE	25	111	25.7	90	79	7.8
1000	25	89				
950	25	542	23.6	82	79	19.6
900	25	1,013	20.8	79	86	21.2
850	25	1,507	18.4	73	89	18.7
800	25	2,026	15.9	66	86	17.7
750	25	2,569	13.2	60	87	19.2
700	25	3,150	10.2	52	85	18.7
650	25	3,760	6.5	50	87	16.7
600	25	4,416	2.6	50	89	16.7
550	25	5,112	- 1.4	43	89	16.5
500	25	5,869	- 5.7	37	88	17.1
450	25	6,685	-10.5		84	19.4
400	25	7,586	-15.9		81	14.8
350	25	8,579	-22.7		79	12.8
300	25	9,691	-31.1		75	5.2
250	25	10,956	-41.3		96	2.7
200	25	12,430	-53.6		135	3.1
175	25	13,275	-60.5		141	4.3
150	25	14,218	-67.9		92	8.0
125	25	15,291	-75.8		76	12.4
100	23	16,556	-81.8		86	19.6
80	21	17,805	-80.6		92	18.5
70	19	18,563	-76.1		94	18.8
60	18	19,464	-70.6		94	15.9
50	18	20,563	-64.1		90	20.4
40	18	21,940	-60.7		96	26.6
30	17	23,750	-55.6		87	39.1
25	16	24,921	-52.0		89	43.1
20	14	26,384	-48.1		87	43.3
15	13	28,296	-46.0		91	38.1
10	11	31,011	-43.1			
7	8	33,421	-40.2			
5						

HILO, HAWAII
1018 MB

Standard pressure surface (mb.)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind	
					Direction	Speed
SURFACE	30	11	19.8	85	241	4.7
1000	30	162	21.9	74	256	3.3
950	30	603	18.6	78	76	5.1
900	30	1,068	15.2	82	77	8.5
850	30	1,550	12.0	82	79	9.3
800	30	2,057	9.2	76	80	10.7
750	30	2,593	8.7	40	87	13.0
700	30	3,160	6.4		95	13.2
650	30	3,763	3.2		97	12.0
600	30	4,409	- .2		90	10.3
550	30	5,094	- 4.5		79	9.5
500	30	5,845	- 9.3		62	7.8
450	30	6,644	-15.0		51	5.8
400	30	7,532	-21.5		348	5.1
350	30	8,503	-28.5		290	11.3
300	30	9,590	-36.0		281	26.0
250	30	10,833	-44.6		277	34.8
200	30	12,292	-54.8		274	40.0
175	30	13,135	-60.2		275	36.9
150	30	14,083	-65.6		287	27.6
125	30	15,175	-71.3		296	18.1
100	30	16,478	-75.5		315	11.3
80	30	17,771	-74.0		344	5.8
70	30	18,553	-71.7		33	4.9
60	29	19,471	-66.7		79	7.8
50	29	20,586	-62.2		93	8.5
40	29	21,977	-58.5		93	10.1
30	29	23,801	-54.5		87	14.4
25	29	24,973	-52.5		86	17.1
20	28	26,428	-49.8		84	16.7
15	26	28,314	-47.7		84	9.1
10	20	30,980	-45.6		243	9.7
7	15	33,399	-41.9		273	27.6
5	10	35,686	-37.2			

HUNTINGTON, W. VA.
990 MB

Standard pressure surface (mb.)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind	
					Direction	Speed
SURFACE	29	246	3.5	87	303	.8
1000	29	165				
950	29	586	5.4	64	275	4.1
900	29	1,025	3.4	61	298	7.0
850	29	1,488	2.5	55	292	9.3
800	29	1,977	.6	50	292	13.0
750	29	2,492	- 1.4	42	295	13.0
700	29	3,041	- 3.4		288	16.1
650	29	3,620	- 6.4	42	286	18.5
600	29	4,245	-10.1	40	283	20.2
550	29	4,906	-13.8		281	24.3
500	29	5,629	-18.7		276	28.0
450	29	6,399	-23.9		277	32.3
400	29	7,257	-29.8	37	276	36.9
350	29	8,196	-36.5		273	42.2
300	29	9,248	-44.0		271	46.2
250	29	10,451	-51.4		271	48.2
200	29	11,884	-55.6		274	52.1
175	28	12,743	-56.3		271	48.6
150	28	13,717	-58.8		270	38.7
125	28	14,855	-61.1		271	33.8
100	25	16,240	-62.1		269	30.3
80	25	17,627	-62.5		267	23.3
70	25	18,450	-62.0		264	21.4
60	25	19,401	-61.0		267	18.8
50	25	20,538	-59.8		266	16.3
40	24	21,937	-59.2		265	20.4
30	22	23,746	-58.4		270	22.9
25	21	24,891	-57.8		273	24.1
20	18	26,315	-56.5		273	27.6
15	13	28,168	-54.4			
10						
7						

INTERNAT. FALLS, MINN.
973 MB

Standard pressure surface (mb.)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind	
					Direction	Speed
SURFACE	30	360	- 1.9	79	231	1.6
1000	30	143				
950	30	549	- 1.8	78	217	5.8
900	30	982	- 2.7	74	235	11.7
850	30	1,434	- 2.8	64	262	14.4
800	30	1,913	- 4.4	54	269	15.0
750	30	2,418	- 6.7	50	270	15.3
700	30	2,956	- 9.3	48	275	17.9
650	30	3,520	-12.5	49	275	20.6
600	30	4,134	-15.7	44	279	24.5
550	30	4,779	-19.9	47	281	28.6
500	30	5,486	-24.2	47	283	32.3
450	30	6,239	-29.3	50	288	36.3
400	30	7,079	-35.4	53	288	39.4
350	30	7,996	-42.1		287	39.4
300	30	9,024	-48.8		286	46.4
250	30	10,206	-54.7		284	49.2
200	30	11,627	-55.6		285	50.3
175	30	12,480	-54.6		285	47.4
150	30	13,468	-54.6		280	42.9
125	30	14,631	-56.0		281	37.9
100	27	16,053	-56.9		278	30.3
80	27	17,463	-57.7		280	25.1
70	26	18,296	-58.6		275	22.9
60	25	19,269	-59.1		282	21.0
50	25	20,410	-59.8		285	20.8
40	20	21,820	-60.1		287	17.1
30	17	23,628	-59.9		293	16.5
25	14	24,753	-60.8		295	20.2
20	11	26,170	-59.7		290	18.5
15	10	27,965	-59.8			
10	6	30,575	-58.0			
7						

JACKSON, MISS.
1009 MB

Standard pressure surface (mb.)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind	
					Direction	Speed
SURFACE	30	94	7.7	86	30	.8
1000	30	165	9.3	73	48	1.6
950	30	593	10.1	59	354	1.7
900	30	1,041	8.9	55	307	5.4
850	30	1,513	8.1	48	303	7.0
800	30	2,012	6.1	41	287	7.6
750	30	2,542	3.5	45	286	12.2
700	30	3,095	.4	44	284	15.3
650	30	3,687	- 2.9	42	289	15.9
600	30	4,316	- 6.4	38	288	18.3
550	30	4,989	-10.5		282	22.2
500	30	5,720	-15.0		278	26.8
450	30	6,505	-20.6		277	31.5
400	30	7,371	-26.3		275	35.8
350	30	8,323	-33.1		273	39.8
300	30	9,390	-41.1		270	43.3
250	30	10,606	-49.2		275	53.2
200	30	12,048	-56.1		278	52.1
175	30	12,892	-58.9		278	49.5
150	30	13,854	-61.9		277	50.5
125	30	14,975	-64.8		272	39.6
100	30	16,331	-66.4		274	29.7
80	28	17,682	-65.8		274	23.9
70	27	18,502	-63.9		274	16.9
60	26	19,444	-62.3		252	13.0
50	25	20,579	-59.7		253	12.2
40	25	21,978	-57.8		246	9.3
30	25	23,804	-55.1		268	9.5
25	24	24,973	-54.0		275	16.9
20	22	26,418	-52.7		274	27.2
15	22	28,279	-51.8		275	34.0
10	9	30,855	-49.0			
7						

JACKSONVILLE, FLA.
1018 MB

Standard pressure surface (mb.)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind	
					Direction	Speed
SURFACE	30	5	10.3	90	336	3.5
1000	30	156	12.4	77	356	6.0
950	30	585	11.5	71	14	4.7
900	30	1,037	10.0	67	323	3.5
850	30	1,512	9.2	52	285	6.2
800	30	2,013	7.1	46	291	9.1
750	30	2,541	5.6		288	12.6
700	30	3,104	3.2		285	16.5
650	30	3,695	- .3		276	20.2
600	30	4,337	- 4.3		269	23.3
550	30	5,009	- 8.8		267	25.1
500	30	5,749	-13.8		264	28.8
450	30	6,537	-18.7		268	32.8
400	30	7,412	-24.4		271	40.2
350	30	8,371	-31.3		273	45.1
300	30	9,445	-39.3		273	49.2
250	30	10,670	-48.1		272	56.7
200	30	12,114	-55.8		274	58.9
175	30	12,957	-59.0		271	60.4
150	29	13,916	-62.4		274	54.4
125	29	15,032	-65.5		272	45.5
100	29	16,381	-67.5		274	37.1
80	28	17,720	-67.4		277	27.6
70	28	18,535	-65.2		276	17.3
60	27	19,472	-62.7		272	10.3
50	27	20,602	-59.9		277	6.2
40	26	21,998	-58.5		257	3.9
30	25	23,813	-55.5		253	5.6
25	25	24,981	-53.6		275	10.3
20	22	26,422	-51.8		275	17.3
15	20	28,298	-49.8		276	26.8
10	16	30,972	-45.1		271	44.9
7	8	33,329	-42.9			

JOHNSTON IS., PACIFIC AREA
1015 MB

Standard pressure surface (mb.)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind	
					Direction	Speed
SURFACE	22	3	26.1	74	84	15.7
1000	22	132	24.9	76	82	20.2
950	22	589	20.9	82	82	20.8
900	22	1,047	17.8	77	91	22.9
850	22	1,535	15.1	66	90	20.4
800	22	2,047	13.4	48	92	17.5
750	22	2,594	11.0	41	94	16.7
700	22	3,162	8.3	30	91	13.2
650	22	3,777	4.7	33	93	12.4
600	22	4,418	.6	34	89	8.4
550	22	5,106	- 3.7	29	85	4.1
500	22	5,858	- 8.3	33	359	4.3
450	22	6,671	-13.8	36	316	7.2
400	22	7,554	-19.6	29	295	14.8
350	22	8,532	-26.7	30	284	22.9
300	22	9,629	-34.2	24	270	32.4
250	22	10,881	-43.4		273	36.7
200	22	12,347	-54.3		274	33.0
175	22	13,191	-60.0		280	26.6
150	21	14,142	-66.0		280	22.3
125	21	15,234	-71.4		296	15.2
100	20	16,530	-76.8		344	11.9
80	19	17,814	-76.8		35	10.9
70	19	18,586	-74.2		61	9.3
60	19	19,494	-68.7		71	10.5
50	18	20,603	-63.6		88	13.8
40	18	21,987	-59.4		93	18.3
30	17	23,805	-56.0		89	24.7
25	15	24,981	-53.4		84	30.9
20	14	26,431	-49.3		86	30.3
15	7	28,339	-46.1			
10						
7						

KING SALMON, ALASKA
991 MB

Standard pressure surface (mb.)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind	
					Direction	Speed
SURFACE	30	15	- 4.0	72	40	5.6
1000	30	- 60				
950	30	350	- 2.7	68	61	8.9
900	30	775	- 3.2	64	70	7.4
850	30	1,226	- 5.4	61	90	5.2
800	30	1,700	- 7.8	61	121	6.0
750	30	2,200	-10.4	56	138	8.2
700	30	2,728	-13.7	55	146	7.8
650	30	3,284	-17.5	54	153	7.8
600	30	3,882	-21.5	51	137	7.8
550	30	4,515	-26.0	47	144	6.8
500	30	5,201	-30.9	45	151	7.6
450	30	5,939	-36.5		149	7.4
400	30	6,747	-42.6		152	9.1
350	30	7,636	-48.8		157	8.4
300	30	8,639	-53.0		170	6.0
250	30	9,818	-51.3		215	6.6
200	30	11,275	[illegible]		231	9.7
175	30	12,150	-49.0		237	11.3
150	30	13,163	-48.9		241	11.7
125	30	14,361	-48.8		243	12.4
100	30	[illegible]	-48.4		250	12.6
80	30	17,297	-48.9		247	12.6
70	30	18,176	-49.2		251	12.4
60	30	19,184	-49.2		257	11.9
50	30	20,378	-49.8		261	9.7
40	30	21,839	-49.6		274	6.6
30	28	23,729	[illegible]		348	5.4
25	28	24,922	-50.0		15	8.4
20	27	[illegible]	-50.5		18	11.5
15	17	28,240	-51.2		323	8.9
10						

KOTZEBUE, ALASKA
1003 MB

Standard pressure surface (mb.)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind	
					Direction	Speed
SURFACE	30	5	-13.0	75	79	7.8
1000	30	29			87	11.5
950	30	425	-10.0	61	91	12.4
900	30	840	-10.6	60	93	11.1
850	30	1,279	-11.1	57	85	8.5
800	30	1,743	-12.8	56	83	5.8
750	30	2,230	-15.0	55	86	6.8
700	30	2,753	-17.8	52	97	6.4
650	30	3,298	-20.5	43	118	5.4
600	30	3,893	-24.1		119	4.1
550	30	4,514	-27.9	39	125	3.3
500	30	5,201	-32.4	38	140	1.7
450	30	5,929	-37.4		138	1.4
400	30	6,740	-43.2		204	2.5
350	30	7,627	-49.3		235	3.9
300	30	8,626	-54.1		235	1.6
250	30	9,792	-54.5		218	3.5
200	30	11,230	-51.9		221	7.2
175	30	12,095	-51.9		218	8.9
150	30	13,093	-51.8		234	8.9
125	30	14,276	-51.2		239	11.1
100	30	15,730	-50.5		242	14.4
80	29	17,181	-50.3		250	16.7
70	29	18,052	-50.0		253	19.4
60	29	19,060	-50.3		259	22.0
50	29	20,251	-50.1		262	23.3
40	29	21,710	-49.8		262	26.6
30	28	23,583	-50.3		270	32.4
25	25	24,792	-50.3		269	35.2
20	22	26,244	-51.7		279	39.6
15	19	28,082	-52.6		279	46.4
10	8	30,759	-52.5			

LAKE CHARLES, LA.
1019 MB

Standard pressure surface (mb.)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind	
					Direction	Speed
SURFACE	30	5	10.5	91	40	5.2
1000	30	166	13.5	72	66	4.9
950	30	599	12.2	66	171	.6
900	30	1,051	11.0	54	278	2.7
850	30	1,527	9.8	50	300	5.8
800	30	2,029	7.8	47	299	8.7
750	30	2,558	5.2	47	291	12.0
700	30	3,120	2.5	41	292	14.6
650	30	3,714	- .3	36	290	18.3
600	30	4,353	- 4.1		286	20.2
550	30	5,028	- 8.4		283	23.1
500	30	5,767	-13.3		278	28.2
450	30	6,558	-18.9		274	33.4
400	30	7,430	-24.8		273	38.1
350	30	8,387	-32.2		273	41.4
300	30	9,458	-40.0		272	46.8
250	30	10,680	-48.6		274	54.0
200	30	12,120	-56.5		278	57.9
175	30	12,961	-59.8		272	55.8
150	29	13,919	-63.5		270	50.9
125	29	15,030	-66.4		268	44.5
100	28	16,373	-69.0		269	33.0
80	27	17,709	-68.0		269	21.6
70	27	18,527	-65.8		261	14.0
60	25	19,454	-63.3		246	9.5
50	25	20,581	-61.1		235	7.2
40	25	21,977	-58.1		238	5.2
30	25	23,803	-55.1		263	6.8
25	24	24,969	-53.4		266	9.3
20	22	26,413	-52.5		265	17.1
15	13	28,301	-49.6		263	28.6
10	6	30,941	-48.1			

LANDER, WYO.
830 MB

Standard pressure surface (mb.)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind	
					Direction	Speed
SURFACE	30	1,696	- 1.0	67	277	2.9
1000	30	178				
950	30	590				
900	30	1,031				
850	30	1,499				
800	30	1,989	2.9	44	269	2.7
750	30	2,507	1.3	41	290	6.8
700	30	3,062	- 2.3	40	285	15.3
650	30	3,638	- 5.8	38	286	24.5
600	30	4,270	- 9.2	35	287	29.7
550	30	4,927	-13.5	32	289	31.1
500	30	5,656	-18.7	32	291	35.0
450	30	6,426	-24.1		291	38.3
400	30	7,283	-30.5		283	36.3
350	30	8,219	-37.3		286	42.7
300	30	9,267	-44.9		287	48.6
250	30	10,465	-52.6		290	52.7
200	30	11,887	-57.7		287	49.5
175	30	12,727	-58.9		284	49.0
150	30	13,694	-59.4		282	44.3
125	29	14,829	-61.3		279	38.1
100	29	16,208	-62.8		277	30.7
80	28	17,584	-62.4		283	20.2
70	28	18,410	-61.5		286	16.9
60	28	19,367	-60.8		283	11.5
50	26	20,501	-60.3		282	9.7
40	24	21,902	-59.4		290	6.4
30	23	23,714	-57.4		283	7.2
25	16	24,867	-56.6		287	9.7
20						
15						
10						

LAS VEGAS, NEV.
941 MB

Standard pressure surface (mb.)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind	
					Direction	Speed
SURFACE	30	660	9.4	43	267	3.5
1000	30	152				
950	30	586				
900	30	1,037	14.0	30	356	2.3
850	30	1,516	11.6	31	348	3.9
800	30	2,020	8.3	33	336	2.1
750	30	2,551	5.2	29	269	3.1
700	30	3,109	2.1		264	5.4
650	30	3,698	- 1.5		271	8.0
600	30	4,337	- 5.3		275	9.9
550	30	5,005	- 9.8		273	12.6
500	30	5,743	-15.0		284	14.8
450	30	6,521	-20.8		281	17.9
400	30	7,391	-27.4		276	21.6
350	30	8,337	-34.6		276	23.1
300	30	9,396	-42.4		274	28.4
250	30	10,607	-50.0		268	34.8
200	30	12,037	-57.6		271	39.6
175	30	12,875	-60.0		272	38.7
150	30	13,832	-62.0		268	37.3
125	30	14,952	-64.3		266	33.6
100	29	16,305	-66.4		268	28.8
80	28	17,658	-66.0		278	19.2
70	27	18,479	-64.7		276	15.0
60	27	19,418	-63.4		277	10.9
50	27	20,541	-61.9		290	10.3
40	25	21,929	-60.1		276	9.5
30	24	23,734	-56.6		259	8.5
25	23	24,895	-55.0		268	8.4
20	19	26,323	-53.5		273	7.4
15	14	28,190	-51.9		280	15.9
10						

See reference note at end of table

RAWINSONDE DATA

Average monthly values

NOVEMBER 1962

LIHUE, HAWAII
1015 MB

Standard pressure surface (mb.)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind Direction	Wind Speed
SURFACE	30	36	23.0	77	59	9.3
1000	30	168	22.3	76	62	12.8
950	30	610	18.8	79	69	15.9
900	30	1,076	15.3	79	75	16.9
850	30	1,558	12.0	76	76	17.1
800	30	2,065	10.1	56	79	18.3
750	30	2,597	9.1	27	83	16.7
700	30	3,170	7.4		91	13.4
650	30	3,772	4.1		94	12.0
600	30	4,422	- .1		84	11.5
550	30	5,106	- 4.8		77	10.9
500	30	5,856	-10.1		74	11.3
450	30	6,654	-15.8		74	7.2
400	30	7,538	-22.4		65	4.5
350	30	8,503	-30.0		27	2.9
300	30	9,584	-37.5		300	6.4
250	30	10,822	-45.3		277	18.8
200	30	12,280	-54.5		275	22.3
175	29	13,125	-59.4		290	19.0
150	29	14,077	-65.0		314	14.0
125	29	15,173	-70.8		323	10.7
100	28	16,480	-75.1		342	9.9
80	28	17,776	-73.8		357	6.8
70	28	18,559	-71.6		45	4.9
60	28	19,477	-66.5		66	5.8
50	27	20,593	-62.1		81	6.2
40	26	21,987	-57.6		110	5.6
30	26	23,821	-54.1		85	6.4
25	26	24,996	-52.0		68	5.4
20	25	26,443	-50.9		77	4.1
15	25	28,327	-48.7		285	4.1
10	23	31,013	-45.7		256	11.3
7	19	33,411	-42.1		265	28.0
5	15	35,693	-38.7			

LITTLE ROCK, ARK.
1011 MB

Standard pressure surface (mb.)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind Direction	Wind Speed
SURFACE	30	79	7.1	83	[illegible]	2.9
1000	30	171	8.4	68	26	3.3
950	30	593	8.0	61		.0
900	30	1,041	7.2	59	270	4.5
850	30	1,511	6.2	60	282	9.1
800	30	2,007	4.6	51	287	10.9
750	30	2,528	2.1	48	290	13.0
700	30	3,086	- .8	47	290	15.0
650	29	3,666	- 4.2	42	291	17.1
600	29	4,298	- 7.5	38	293	19.2
550	29	4,962	-11.6	36	293	23.1
500	29	5,696	-16.4	36	295	28.6
450	29	6,473	-21.8	34	290	33.2
400	29	7,340	-27.8		293	32.1
350	29	8,287	-34.3		300	34.6
300	29	9,348	-41.7		301	38.9
250	29	10,562	-49.6		299	39.8
200	28	11,996	-56.4		293	38.3
175	28	12,840	-58.5		292	35.9
150	26	13,802	-60.4		290	35.6
125	26	14,931	-63.0		286	31.5
100	25	16,296	-64.9		284	22.5
80	23	17,658	-64.5		279	17.9
70	22	18,485	-63.3		278	12.4
60	21	19,431	-61.5		271	10.9
50	20	20,565	-60.4		269	10.5
40	17	21,960	-58.2		258	11.1
30	13	23,805	-55.4			
25	12	24,981	-54.4			
20	11	26,416	-53.9			
15	9	28,292	-52.2			
10						
7						
5						

MCGRATH, ALASKA
988 MB

Standard pressure surface (mb.)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind Direction	Wind Speed
SURFACE	30	103	-16.5	74	339	.6
1000	30	8				
950	30	402	-11.9	73	38	5.4
900	30	815	- 7.9	70	70	9.5
850	30	1,261	- 7.2	63	83	8.9
800	30	1,731	- 9.1	56	104	6.4
750	30	2,223	-11.7	51	126	6.2
700	30	2,754	-14.9	52	154	4.7
650	30	3,304	-18.6	51	158	4.7
600	30	3,903	-22.7	48	170	5.4
550	30	4,524	-26.8	43	170	6.0
500	30	5,217	-31.7	40	180	5.8
450	30	5,943	-37.0		192	6.0
400	30	6,760	-42.8		197	6.6
350	30	7,648	-48.6		196	7.0
300	30	8,649	-53.9		201	5.8
250	30	9,819	-53.4		210	5.1
200	30	11,266	-50.5		219	6.2
175	30	12,138	-49.8		226	7.6
150	30	13,146	-49.9		230	9.1
125	29	14,335	-49.7		235	10.9
100	28	15,805	-49.2		246	12.0
80	28	17,270	-48.9		256	13.4
70	27	18,134	-48.8		261	13.6
60	26	19,163	-48.9		261	15.3
50	26	20,360	-49.0		269	15.2
40	22	21,810	-48.5		264	17.1
30	20	23,698	-48.7		277	18.5
25	20	24,893	-49.7		289	19.8
20	18	26,377	-50.0		305	21.6
15	16	28,249	-50.3		309	22.3
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MAJURO, MARSHALL IS.
1009 MB

Standard pressure surface (mb.)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind Direction	Wind Speed
SURFACE	30	[illegible]	26.8	85	85	7.8
1000	30	83	26.3	84	87	9.1
950	30	530	23.4	[illegible]	92	11.9
900	30	1,007	20.6	79	95	14.8
850	30	1,501	17.8	77	96	15.0
800	30	2,019	15.2	75	96	12.8
750	30	2,565	12.5	71	92	14.0
700	30	3,143	9.6	69	90	13.8
650	30	3,757	6.2	70	93	11.5
600	30	4,410	2.5	69	96	12.4
550	30	5,108	- 1.4	71	90	10.9
500	29	5,866	- 5.3	65	86	11.9
450	29	6,689	-10.2	60	86	8.7
400	29	7,588	-15.6	[illegible]	115	8.4
350	29	8,582	-22.4	47	140	7.0
300	29	9,696	-30.7	42	197	5.4
250	28	10,963	-41.0		227	7.6
200	28	12,439	-53.6		257	12.2
175	28	13,284	-60.8		267	11.3
150	28	14,225	-68.6		267	10.1
125	28	15,297	-76.3		259	5.4
100	27	16,560	-82.7		91	9.1
80	22	17,814	-79.0		85	8.2
70	22	18,581	-74.4		85	5.6
60	22	19,487	-70.3		75	[illegible]
50	21	20,581	-65.2		85	16.5
40	20	21,955	-60.4		91	37.3
30	20	23,762	-56.6		89	54.2
25	18	24,931	-53.3		90	53.4
20	18	26,384	-48.4		88	55.4
15	18	28,298	-43.6		91	48.0
10	12	31,065	-40.1			
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MEDFORD, OREG.
974 MB

Standard pressure surface (mb.)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind Direction	Wind Speed
SURFACE	30	401	4.2	94	321	.8
1000	30	185				
950	30	604	5.7	85	291	1.4
900	30	1,046	6.3	74	181	2.5
850	30	1,514	4.7	65	225	7.0
800	30	2,007	2.2	60	241	10.7
750	30	2,523	- .7	58	258	15.2
700	30	3,074	- 3.5	56	258	19.8
650	30	3,653	- 6.7	54	259	22.7
600	29	4,279	-10.6	50	261	26.8
550	29	4,940	-14.5	46	262	29.7
500	29	5,660	-19.4	44	263	31.7
450	29	6,429	-24.8	44	263	35.8
400	29	7,284	-30.3	42	263	42.9
350	29	8,221	-36.8		262	46.2
300	29	9,271	-44.4		265	41.0
250	29	10,473	-52.0		257	41.8
200	29	11,898	-57.4		266	41.2
175	29	12,738	-58.6		266	37.9
150	29	13,707	-59.2		268	35.0
125	28	14,848	-61.0		260	31.1
100	26	16,233	-62.3		265	25.8
80	25	17,615	-62.1		265	16.9
70	25	18,449	-61.6		265	14.8
60	25	19,399	-60.6		275	9.7
50	25	20,534	-60.5		281	6.0
40	24	21,927	-59.2		302	3.5
30	24	23,738	-57.2		311	2.1
25	23	24,896	-56.1		327	2.5
20	21	26,325	-54.5		354	4.3
15	20	28,174	-53.6		12	6.0
10	19	30,784	-52.3		22	10.7
7	7	33,150	-50.8			
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MERIDA, MEXICO
1017 MB

Standard pressure surface (mb.)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind Direction	Wind Speed
SURFACE	30	11	17.0	93	93	3.9
1000	30	153	21.2	78	83	5.6
950	30	593	19.2	74	87	6.0
900	30	1,062	16.2	72	70	3.3
850	30	1,546	13.8	63	23	1.6
800	30	2,056	11.6	55	337	2.1
750	30	2,588	9.7	41	324	3.3
700	30	3,165	7.5	29	320	4.9
650	30	3,761	4.3		298	6.0
600	30	4,420	.7		279	5.2
550	30	5,100	- 3.3		264	7.4
500	30	5,862	- 8.0		264	10.1
450	30	6,667	-13.5		274	13.2
400	29	7,561	-19.6		270	17.7
350	29	8,539	-26.4		268	22.9
300	29	9,634	-34.8		262	23.7
250	29	10,880	-44.6		258	30.5
200	29	12,337	-55.9		250	34.0
175	29	13,175	-61.6		255	34.2
150	29	14,118	-66.6		254	31.9
125	29	15,208	-71.0		252	29.5
100	29	16,515	-74.8		263	17.3
80	29	17,805	-75.2		255	4.5
70	29	18,592	-71.5		80	3.5
60	28	19,506	-66.6		111	10.7
50	28	20,622	-61.5		103	12.2
40	26	22,026	-56.8		99	7.6
30	25	23,873	-52.4		72	8.9
25	24	25,054	-50.5		74	13.0
20	18	26,504	-48.7		88	12.0
15	5	28,441	-44.7			
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MIAMI, FLA.
1017 MB

Standard pressure surface (mb.)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind Direction	Wind Speed
SURFACE	30	4	16.7	87	349	2.3
1000	30	145	18.0	78	10	3.1
950	30	588	16.2	74	12	3.1
900	30	1,043	14.0	68	286	2.1
850	30	1,524	12.0	60	268	5.1
800	30	2,031	10.1	48	273	8.2
750	30	2,568	8.5		265	12.4
700	30	3,134	6.0		267	14.0
650	30	3,736	3.0		263	15.9
600	30	4,381	- .8		265	19.6
550	29	5,067	- 5.0		263	23.5
500	29	5,814	- 9.8		263	27.2
450	29	6,616	-15.4		265	29.1
400	29	7,500	-21.7		265	35.4
350	29	8,470	-28.7		266	40.8
300	28	9,553	-36.8		260	48.4
250	28	10,791	-46.3		259	56.0
200	28	12,240	-56.2		260	58.9
175	27	13,079	-61.2		259	58.3
150	27	14,026	-65.3		261	51.1
125	27	15,126	-68.9		262	43.5
100	27	16,450	-71.7		268	26.6
80	27	17,763	-71.5		272	15.5
70	27	18,569	-68.9		264	6.0
60	27	19,488	-65.1		97	2.1
50	27	20,607	-62.3		101	7.2
40	26	21,995	-58.5		82	8.4
30	25	23,825	-53.7		58	5.8
25	24	25,008	-51.4		57	3.1
20	23	26,469	-49.5		308	3.5
15	19	28,375	-46.8		278	10.7
10	17	31,095	-42.7		262	23.5
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MIDLAND, TEXAS
918 MB

Standard pressure surface (mb.)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind Direction	Wind Speed
SURFACE	30	874	6.5	76	147	1.2
1000	30	164				
950	30	590				
900	30	1,041	10.3	62	179	3.3
850	30	1,518	11.0	49	220	6.2
800	30	2,023	9.1	43	253	6.8
750	30	2,556	6.9	35	272	7.8
700	30	3,119	3.5	37	288	10.3
650	30	3,716	.3	34	282	14.4
600	30	4,353	- 3.6		281	17.3
550	30	5,031	- 8.3		285	20.6
500	30	5,769	-13.3		286	23.3
450	30	6,558	-19.2		287	25.6
400	30	7,427	-25.5		285	28.4
350	30	8,383	-32.5		281	33.8
300	30	9,451	-40.4		281	41.2
250	30	10,670	-49.3		281	48.2
200	29	12,103	-56.9		280	55.6
175	28	12,939	-60.6		287	55.8
150	28	13,892	-63.4		286	48.4
125	27	15,006	-66.3		285	40.2
100	27	16,353	-67.7		279	30.3
80	26	17,694	-67.9		272	19.6
70	23	18,513	-66.8		268	14.8
60	23	19,436	-64.2		269	9.7
50	21	20,557	-62.0		261	9.7
40	20	21,951	-58.4		250	7.8
30	20	23,770	-56.1		253	9.3
25	20	24,934	-54.4		267	14.8
20	18	26,374	-53.4		274	22.3
15	17	28,227	-52.9		274	29.1
10	14	30,867	-49.1		276	43.5
7	9	33,183	-47.7			
5	6	35,425	-45.6			

MONTGOMERY, ALA.
1013 MB

Standard pressure surface (mb.)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind Direction	Wind Speed
SURFACE	30	61	7.5	88	349	2.3
1000	30	163	9.7	75	26	2.9
950	30	590	9.8	63	4	2.3
900	30	1,040	9.1	58	310	3.9
850	30	1,512	7.8	50	301	6.6
800	30	2,011	6.5	47	290	8.4
750	30	2,540	4.2	45	291	11.3
700	30	3,098	1.3	43	284	14.2
650	30	3,688	- 1.7	40	280	16.7
600	30	4,325	- 5.5	39	277	19.8
550	30	4,995	- 9.8		273	21.0
500	30	5,732	-14.9	35	276	25.5
450	30	6,516	-19.9		271	24.5
400	30	7,387	-25.8	35	268	32.6
350	30	8,342	-32.7		268	37.1
300	30	9,410	-40.5		267	41.2
250	30	10,630	-49.2		268	49.2
200	30	12,071	-55.8		268	53.4
175	30	12,916	-58.6		265	51.1
150	30	13,878	-61.4		268	45.7
125	30	15,001	-64.5		267	41.6
100	30	16,358	-66.5		271	30.3
80	29	17,711	-66.0		266	22.0
70	29	18,530	-64.8		265	18.5
60	29	19,469	-62.4		260	15.7
50	27	20,602	-60.2		258	11.5
40	26	22,002	-58.3		264	9.1
30	26	23,925	-55.2		257	10.3
25	26	24,995	-53.5		271	13.4
20	22	26,423	-52.7		278	20.6
15	14	28,268	-52.5			
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NANTUCKET, MASS.
1014 MB

Standard pressure surface (mb.)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind Direction	Wind Speed
SURFACE	17	14	5.5	81	348	6.8
1000	17	131	4.9		360	5.8
950	17	545	3.4	67	338	4.9
900	17	986	2.3		334	4.3
850	17	1,448	2.0		305	8.2
800	17	1,937	1.1		293	10.3
750	17	2,454	- .8		278	12.0
700	17	3,003	- 3.7		269	15.7
650	17	3,581	- 6.8		277	18.5
600	17	4,207	-10.0		286	25.6
550	17	4,869	-13.7		283	29.3
500	17	5,592	-18.2		284	31.9
450	17	6,362	-23.8		282	35.9
400	17	7,220	-30.6		280	39.4
350	17	8,155	-37.4		282	41.8
300	17	9,201	-45.4		286	50.3
250	17	10,400	-51.8		286	59.7
200	16	11,832	-55.1		271	57.9
175	15	12,665	-55.6		275	56.0
150	15	13,644	-56.6		279	49.4
125	15	14,794	-59.2		278	38.9
100	15	16,190	-60.2		273	34.2
80	15	17,579	-61.2		275	25.1
70	15	18,415	-60.8		272	22.3
60	15	19,368	-60.9		272	21.6
50	15	20,500	-60.9		276	20.6
40	14	21,895	-60.3		271	20.2
30	14	23,689	-60.2		266	29.9
25	13	24,812	-59.9		273	33.2
20	12	26,211	-58.3			
15	10	28,030	-56.6			
10	8	30,650	-52.2			
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NASHVILLE, TENN.
999 MB

Standard pressure surface (mb.)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind Direction	Wind Speed
SURFACE	30	177	5.1	87	290	2.5
1000	30	167			39	1.4
950	30	591	6.7	63	305	3.5
900	30	1,033	5.7	63	296	7.0
850	30	1,500	4.5	58	297	8.9
800	30	1,993	2.7	55	297	9.9
750	30	2,513	.6	53	288	12.0
700	30	3,065	- 2.2	51	286	14.6
650	30	3,650	- 5.3	49	283	17.5
600	30	4,276	- 8.7	44	278	20.6
550	30	4,943	-12.6	41	272	25.1
500	30	5,668	-17.1	40	276	31.5
450	30	6,447	-22.3	42	267	32.6
400	30	7,307	-28.3	40	263	38.9
350	30	8,251	-35.3		263	41.0
300	30	9,308	-42.9		266	45.3
250	30	10,518	-50.6		272	45.9
200	30	11,951	-56.3		274	48.4
175	30	12,796	-58.1		278	40.6
150	30	13,763	-60.1		274	37.9
125	29	14,896	-61.8		271	33.8
100	29	16,271	-63.6		274	26.8
80	27	17,641	-63.8		272	21.0
70	27	18,473	-62.8		267	17.1
60	26	19,415	-61.3		258	15.9
50	26	20,551	-59.1		259	15.5
40	26	21,953	-58.2		259	18.7
30	25	23,767	-56.7		266	19.0
25	24	24,920	-56.1		268	19.8
20	22	26,346	-55.7		275	24.9
15	21	28,172	-53.8		278	29.7
10	18	30,799	-50.4		278	39.6
7	17	33,142	-47.1		273	46.0
5	13	35,376	-43.4			

N. Y. INT. AP. IDLEWILD
1019 MB

Standard pressure surface (mb.)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind Direction	Wind Speed
SURFACE	30	5	4.2	63	338	5.1
1000	30	157	4.3	58	2	8.0
950	30	575	3.5	56	12	6.4
900	30	1,012	2.3	55	349	5.6
850	30	1,473	1.0	53	294	6.6
800	30	1,960	.3	47	279	9.5
750	30	2,481	- 1.8	48	270	13.0
700	30	3,023	- 4.6	47	271	14.8
650	30	3,603	- 7.8	41	267	18.1
600	30	4,223	-10.7	41	263	23.3
550	30	4,886	-14.6		260	27.2
500	30	5,603	-19.7		253	27.4
450	30	6,377	-24.7		255	34.8
400	30	7,226	-30.7		254	37.1
350	30	8,162	-37.3		257	41.0
300	30	9,211	-44.6		259	45.1
250	30	10,413	-51.1		263	48.2
200	29	11,854	-55.0		262	43.7
175	29	12,706	-56.0		258	44.3
150	29	13,684	-56.9		263	41.2
125	29	14,832	-59.5		263	36.3
100	28	16,220	-60.2		265	28.8
80	28	17,610	-60.3		262	22.0
70	28	18,454	-59.7		259	18.3
60	28	19,405	-59.7		259	17.7
50	28	20,545	-59.5		261	16.9
40	28	21,941	-59.4		264	16.1
30	28	23,742	-59.1		271	18.7
25	25	24,893	-58.7		274	23.5
20	22	26,300	-57.4		268	27.0
15	15	28,128	-55.3		265	33.0
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NOME, ALASKA
1000 MB

Standard pressure surface (mb.)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind Direction	Wind Speed
SURFACE	30	7	- 8.8	71	40	4.7
1000	30	4			46	6.8
950	30	406	- 7.5	58	71	7.4
900	30	823	- 8.9	58	64	7.4
850	30	1,265	-10.2	58	72	8.0
800	30	1,731	-11.8	56	69	6.8
750	30	2,222	-13.7	54	78	6.0
700	30	2,745	-16.5	50	74	5.1
650	30	3,292	-19.7	45	57	4.1
600	30	3,889	-23.4	45	70	3.1
550	30	4,516	-27.3	42	56	2.5
500	30	5,200	-31.9		104	1.4
450	30	5,931	-36.9		182	1.4
400	30	6,743	-42.7		167	3.3
350	30	7,632	-48.6		161	3.3
300	30	8,633	-54.1		190	3.9
250	30	9,800	-54.3		195	4.9
200	30	11,240	-51.3		208	7.4
175	30	12,108	-51.0		206	9.5
150	29	13,108	-50.9		225	9.9
125	29	14,296	-50.0		238	9.7
100	28	15,760	-49.5		232	12.8
80	28	17,222	-49.1		246	15.3
70	28	18,100	-48.8		251	17.5
60	28	19,110	-49.0		253	17.9
50	28	20,307	-48.6		256	19.2
40	28	21,773	-48.7		258	20.6
30	26	23,678	-48.3		260	22.5
25	24	24,900	-48.4		265	22.3
20	24	26,362	-49.9		272	24.3
15	20	28,225	-51.4		278	31.3
10	6	30,915	-48.4			
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NORFOLK, VA.
1017 MB

Standard pressure surface (mb.)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind Direction	Wind Speed
SURFACE	30	9	8.2	83	357	4.5
1000	30	150	8.0	75	1	7.2
950	30	570	7.2	70	360	7.0
900	30	1,017	5.1	70	343	6.2
850	30	1,483	3.5	62	315	6.4
800	30	1,974	2.2	52	291	6.8
750	30	2,495	.3	50	277	6.4
700	30	3,045	- 2.4	44	267	13.2
650	30	3,627	- 5.2	43	267	17.3
600	30	4,256	- 8.5	41	264	20.6
550	30	4,921	-12.8	40	262	23.3
500	30	5,647	-17.5	42	262	27.2
450	29	6,421	-22.6		253	31.5
400	29	7,282	-28.8		255	35.4
350	29	8,223	-35.7		252	39.4
300	29	9,278	-42.8		256	47.8
250	29	10,488	-49.6		259	57.5
200	28	11,930	-55.0		270	55.4
175	28	12,779	-57.1		270	52.1
150	28	13,749	-59.3		266	51.7
125	28	14,882	-61.9		268	42.2
100	28	16,257	-62.7		267	[illegible]
80	28	[illegible]	-62.6		265	26.4
70	28	18,466	-61.4		261	23.3
60	28	19,416	-60.5		263	21.4
50	28	20,554	-60.1		264	15.9
40	27	21,952	-58.5		273	20.2
30	27	23,767	-57.4		277	17.7
25	26	24,919	-56.9		276	22.9
20	24	26,326	-55.8		272	28.6
15	20	28,162	-53.5		273	37.1
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NORTH PLATTE, NEBR.
919 MB

Standard pressure surface (mb.)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind Direction	Wind Speed
SURFACE	30	848	- .3	77	289	2.3
1000	30	165				
950	30	582				
900	30	1,016	3.2	68	280	5.6
850	30	1,491	4.8	52	299	11.5
800	30	1,974	2.8	47	306	13.8
750	30	2,491	.7	41	307	17.9
700	30	3,046	- 2.1	40	303	19.2
650	30	3,622	- 5.5	40	301	21.4
600	30	4,254	- 9.4	36	298	23.3
550	30	4,915	-13.9	35	291	27.2
500	30	5,639	-18.8	33	296	27.8
450	30	6,408	-24.4		295	32.3
400	30	7,265	-30.5		295	35.2
350	30	8,201	-37.4		299	35.6
300	30	9,247	-45.1		297	39.4
250	30	10,446	-52.1		292	46.0
200	29	11,872	-57.6		287	46.6
175	29	12,714	-58.3		288	43.5
150	29	13,680	-60.0		288	40.2
125	28	14,816	-61.9		289	32.4
100	28	16,189	-63.9		284	25.6
80	28	17,559	-63.2		282	18.8
70	28	18,385	-62.2		281	17.5
60	28	19,337	-61.4		284	13.2
50	27	20,467	-60.9		291	8.0
40	27	21,858	-60.0		282	8.4
30	24	23,669	-57.7		280	10.3
25	23	24,819	-57.4		276	14.0
20	23	26,232	-56.9		284	19.4
15	23	28,059	-56.1		289	21.6
10	23	30,049	-54.4		286	29.9
7	19	32,972	-51.1		284	38.3
5	14	[illegible]	-49.9			

See reference note at end of table

RAWINSONDE DATA

Average monthly values

NOVEMBER 1962

OAKLAND, CALIF.
1019 MB

Standard pressure surface (mb)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind Direction	Wind Speed
SURFACE	30	6	10.2	85	50	1.2
1000	30	165	12.3	77	159	1.4
950	30	594	11.4	64	332	5.2
900	30	1,049	11.0	50	313	7.0
850	30	1,524	9.3	43	293	6.8
800	30	2,024	6.9	36	274	8.0
750	30	2,550	4.1		284	11.1
700	30	3,111	1.0		286	13.4
650	30	3,700	- 2.4		283	15.2
600	30	4,334	- 6.2	32	276	18.8
550	30	5,003	-10.6		270	20.2
500	30	5,736	-15.6	32	269	21.2
450	29	6,517	-21.1		269	25.6
400	29	7,385	-27.5		268	27.6
350	29	8,332	-34.9		273	30.1
300	29	9,390	-43.0		270	31.5
250	29	10,597	-51.5		273	35.8
200	29	12,020	-58.5		275	35.8
175	29	12,857	-60.3		269	35.8
150	29	13,816	-61.7		263	34.6
125	28	14,937	-63.4		265	29.5
100	27	16,304	-65.7		264	23.9
80	24	17,658	-64.0		265	19.2
70	24	18,487	-63.7		266	15.2
60	24	19,424	-62.6		267	13.0
50	22	20,551	-61.6		271	9.7
40	21	21,938	-60.5		275	8.9
30	20	23,745	-57.5		314	5.2
25	20	24,900	-56.2		283	4.5
20	19	26,323	-54.5		290	6.4
15	18	28,172	-52.9		291	9.5
10	16	30,803	-51.7		287	12.4
7	11	33,135	-49.1		282	18.7
5	7	35,352	-47.3			

OKLAHOMA CITY, OKLA.
974 MB

Standard pressure surface (mb)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind Direction	Wind Speed
SURFACE	30	392	5.8	84	30	.6
1000	30	173				
950	30	598	7.6	66	165	1.6
900	30	1,043	7.7	57	252	5.2
850	30	1,513	6.7	52	277	8.7
800	30	2,010	5.2	46	278	10.9
750	30	2,534	3.3	37	286	14.0
700	30	3,092	.4	33	287	15.0
650	30	3,680	- 2.9	29	283	16.5
600	30	4,314	- 6.5		287	21.6
550	30	4,981	-11.0		285	26.4
500	30	5,714	-16.1		281	29.7
450	30	6,493	-22.1		281	33.2
400	30	7,354	-28.5		284	36.5
350	30	8,298	-35.1		286	40.2
300	30	9,356	-42.5		283	45.9
250	30	10,566	-50.8		281	49.4
200	29	11,993	-57.3		280	55.6
175	29	12,833	-59.5		276	48.2
150	29	13,793	-61.6		279	44.7
125	29	14,916	-64.3		275	40.6
100	29	16,274	-66.0		275	30.9
80	29	17,629	-65.5		271	23.7
70	29	18,452	-64.2		271	19.4
60	29	19,392	-63.2		267	15.2
50	28	20,518	-61.4		261	13.6
40	26	21,917	-58.7		252	16.5
30	23	23,740	-56.4		267	18.1
25	21	24,900	-56.1		264	21.6
20	17	26,338	-54.3		260	23.9
15	6	28,203	-53.6			
10						
7						
5						

OLYMPIA, WASH.
1011 MB

Standard pressure surface (mb)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind Direction	Wind Speed
SURFACE	30	58	6.3	94	226	4.5
1000	30	143	6.5	86	215	6.2
950	30	564	5.4	75	196	14.4
900	30	1,005	4.0	69	214	16.3
850	30	1,468	1.7	67	228	18.1
800	30	1,955	- .7	62	232	21.0
750	30	2,468	- 3.7	61	240	24.3
700	30	3,010	- 6.8	58	248	22.9
650	30	3,578	-10.4	56	245	29.7
600	30	4,196	-14.5	54	241	30.7
550	30	4,845	-18.7	52	249	30.3
500	30	5,554	-23.6	51	249	31.1
450	30	6,311	-28.8	49	247	35.9
400	30	7,150	-34.4	45	244	36.9
350	30	8,071	-40.8		251	40.2
300	30	9,106	-46.8		254	42.4
250	30	10,298	-52.4		265	44.3
200	30	11,729	-55.4		270	44.5
175	30	12,579	-55.8		265	43.7
150	30	13,559	-56.2		268	38.9
125	30	14,711	-58.3		267	31.9
100	30	16,110	-59.3		268	25.3
80	27	17,503	-57.8		268	16.3
70	26	18,346	-58.1		268	15.7
60	25	19,311	-58.6		279	9.3
50	23	20,461	-58.6		301	5.4
40	22	21,864	-58.3		315	3.1
30	19	23,695	-56.8		337	3.3
25	18	24,849	-56.0		16	4.3
20	16	26,264	-55.2		16	5.8
15	10	28,087	-54.9			
10						
7						
5						

OMAHA, NEBR.
971 MB

Standard pressure surface (mb)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind Direction	Wind Speed
SURFACE	30	403	2.1	81	196	2.1
1000	30	159				
950	30	575	4.0	69	221	4.3
900	30	1,016	3.9	61	262	8.5
850	30	1,480	3.0	52	279	8.9
800	30	1,970	1.6	45	284	9.9
750	30	2,482	- .3	42	285	12.8
700	30	3,038	- 3.0	42	285	15.3
650	30	3,613	- 6.5	42	288	18.8
600	30	4,243	-10.4	39	288	21.2
550	30	4,898	-14.6	36	291	23.1
500	30	5,624	-19.4		291	26.2
450	30	6,387	-25.0		294	28.8
400	30	7,244	-31.5		299	32.6
350	29	8,177	-38.2		302	36.7
300	29	9,223	-45.5		295	38.1
250	29	10,420	-52.2		293	44.1
200	29	11,848	-56.2		290	46.2
175	29	12,694	-57.3		289	48.6
150	29	13,667	-58.2		285	40.6
125	29	14,808	-60.7		284	34.8
100	29	16,191	-62.2		283	29.9
80	29	17,568	-62.1		283	23.1
70	29	18,400	-61.4		283	18.7
60	28	19,352	-61.0		282	15.2
50	25	20,484	-60.3		282	13.6
40	23	21,878	-59.4		280	10.1
30	19	23,691	-58.3		286	14.4
25	15	24,840	-58.1		284	16.5
20	7	26,272	-57.5			
15						
10						
7						
5						

PEORIA, ILL.
997 MB

Standard pressure surface (mb)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind Direction	Wind Speed
SURFACE	30	200	1.5	83	357	.8
1000	30	174			69	1.4
950	30	592	3.9	60	264	3.1
900	30	1,029	2.4	55	287	5.1
850	30	1,490	1.1	49	283	6.6
800	30	1,976	- .1	39	286	8.9
750	30	2,490	- 2.1	35	279	12.6
700	30	3,038	- 4.5	34	276	15.7
650	30	3,616	- 7.6	39	278	18.1
600	30	4,237	-11.1	38	285	19.8
550	30	4,895	-15.5		284	23.5
500	30	5,612	-20.6	38	280	26.8
450	30	6,376	-25.6		278	29.3
400	30	7,226	-31.7		282	32.1
350	30	8,157	-38.4		286	35.6
300	30	9,201	-45.9		286	38.5
250	30	10,396	-52.4		285	46.4
200	30	11,826	-56.0		281	49.2
175	30	12,673	-56.8		283	46.6
150	30	13,645	-58.6		282	41.2
125	30	14,785	-60.5		281	35.6
100	30	16,170	-61.5		278	30.1
80	30	17,550	-62.2		276	25.1
70	30	18,383	-61.8		274	20.6
60	30	19,331	-61.5		271	15.9
50	30	20,463	-60.9		267	12.6
40	30	21,855	-60.0		270	14.8
30	28	23,663	-58.3		274	19.6
25	28	24,812	-57.9		279	20.6
20	28	26,223	-57.0		280	24.3
15	23	28,058	-55.5		280	27.6
10	21	30,671	-51.7		278	33.8
7	20	33,011	-47.7		269	51.5
5	8	35,298	-44.7			

PITTSBURGH, PA.
978 MB

Standard pressure surface (mb)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind Direction	Wind Speed
SURFACE	30	353	2.5	79	51	.6
1000	30	171				
950	30	588	3.0	70	248	1.9
900	30	1,025	1.4	67	275	4.3
850	30	1,484		57	299	7.2
800	30	1,968	- 1.9	55	295	10.1
750	30	2,476	- 3.6	48	286	14.0
700	30	3,023	- 6.3		289	14.2
650	30	3,596	- 9.4		288	15.3
600	30	4,215	-12.7	45	281	18.8
550	30	4,865	-16.6	41	284	23.9
500	30	5,585	-21.1		280	28.0
450	30	6,346	-26.4	41	274	30.1
400	30	7,198	-32.1		268	36.1
350	30	8,128	-38.8		268	39.8
300	30	9,171	-45.5		268	47.8
250	30	10,370	-51.8		264	49.5
200	30	11,805	-54.9		261	52.8
175	30	12,657	-55.9		265	44.7
150	30	13,635	-57.8		263	38.7
125	28	14,777	-60.0		264	34.6
100	28	16,168	-60.6		260	30.5
80	27	17,551	-61.1		261	25.6
70	27	18,383	-61.0		257	20.8
60	27	19,339	-60.5		259	21.6
50	27	20,474	-60.0		255	20.2
40	27	21,870	-59.2		257	24.7
30	27	23,671	-59.1		266	27.8
25	25	24,818	-58.4		267	29.7
20	24	26,227	-57.0		274	28.6
15	22	28,055	-55.6		277	30.3
10	18	30,697	-50.9		276	37.7
7	13	33,044	-48.6			

PONAPE, CAROLINE IS.
1003 MB

Standard pressure surface (mb)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind Direction	Wind Speed
SURFACE	30	39	25.5	90	82	2.5
1000	30	65	25.6	88	93	3.1
950	30	512	24.1	82	97	9.1
900	30	992	21.3	82	97	12.6
850	30	1,487	18.7	79	101	10.7
800	30	2,007	16.2	76	97	10.1
750	30	2,551	13.5	72	99	10.5
700	30	3,133	9.8	71	96	9.9
650	30	3,744	6.1	72	91	10.5
600	30	4,400	2.5	76	82	10.3
550	30	5,095	- 1.2	75	93	8.7
500	30	5,856	- 5.3	68	96	8.2
450	30	6,674	-10.0	67	97	8.0
400	30	7,579	-15.5	64	106	7.8
350	30	8,574	-22.3	61	106	6.8
300	30	9,688	-30.6	53	113	7.0
250	30	10,957	-40.9		126	5.1
200	30	12,434	-53.7		176	2.1
175	30	13,278	-61.1		244	.8
150	30	14,218	-69.2			.0
125	29	15,286	-77.0		59	4.1
100	25	16,546	-83.1		76	13.0
80	15	17,795	-80.5		85	16.3
70	13	18,563	-73.9		78	11.7
60	12	19,467	-70.5		73	6.4
50	11	20,561	-65.3		89	15.0
40	10	21,929	-63.0		88	29.7
30	9	23,723	-57.7			
25	7	24,881	-53.4			
20	7	26,334	-48.6			
15	5	28,266	-42.9			
10						
7						

PORTLAND, ME.
1017 MB

Standard pressure surface (mb)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind Direction	Wind Speed
SURFACE	30	20	- .1	84	329	5.1
1000	30	154	1.3	60	342	6.2
950	30	567	1.2	57	359	8.7
900	30	1,002	- .2	60	349	7.6
850	30	1,457	- 1.5	59	321	7.6
800	30	1,940	- 2.1	50	288	10.1
750	30	2,449	- 3.8	46	269	12.8
700	30	2,995	- 5.8	44	269	16.1
650	30	3,567	- 8.6	42	267	17.5
600	30	4,191	-11.8	37	268	19.0
550	30	4,845	-15.9		259	19.8
500	30	5,565	-20.5		259	26.6
450	30	6,328	-25.8	39	255	30.3
400	30	7,182	-32.2	41	253	34.0
350	30	8,112	-38.3		252	39.1
300	30	9,157	-45.3		256	42.4
250	30	10,357	-51.3		260	42.2
200	30	11,794	-54.6		257	42.0
175	30	12,648	-55.1		254	42.7
150	30	13,629	-56.2		257	42.2
125	30	14,783	-57.3		258	35.4
100	30	16,189	-58.4		254	29.0
80	30	17,592	-58.9		252	24.3
70	30	18,435	-59.1		258	20.8
60	30	19,396	-59.6		258	19.4
50	30	20,537	-59.6		262	17.7
40	29	21,929	-59.7		261	18.1
30	27	23,721	-60.2		265	20.8
25	26	24,859	-60.0		267	23.7
20	23	26,267	-58.7		274	30.3
15	17	28,116	-56.3		267	33.8
10	5	30,726	-51.5			
7						

RAPID CITY, S. DAK.
905 MB

Standard pressure surface (mb)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind Direction	Wind Speed
SURFACE	30	966	1.3	73	343	2.3
1000	30	154				
950	30	567				
900	30	1,009			337	2.5
850	30	1,473	3.8	53	300	9.9
800	30	1,964	2.2	49	306	15.5
750	30	2,478	- .6	44	309	16.3
700	30	3,031	- 3.7	42	304	20.2
650	30	3,607	- 7.3	39	299	22.9
600	30	4,232	-11.3	37	296	26.0
550	30	4,889	-15.7	35	294	28.4
500	30	5,606	-20.5	35	288	32.1
450	30	6,371	-26.0	36	289	35.2
400	30	7,218	-32.5		290	39.1
350	30	8,147	-38.9		287	43.1
300	30	9,188	-46.3		288	48.2
250	30	10,379	-53.3		289	50.5
200	30	11,801	-57.2		290	50.5
175	30	12,644	-57.6		285	51.1
150	30	13,617	-58.4		285	43.3
125	30	14,759	-60.3		283	37.9
100	30	16,147	-61.2		285	29.3
80	30	17,530	-61.8		282	19.8
70	29	18,361	-61.4		285	16.1
60	28	19,313	-60.9		281	12.2
50	27	20,451	-59.7		287	11.9
40	24	21,843	-59.6		289	9.7
30	20	23,643	-58.5		290	10.9
25	19	24,801	-57.7		289	10.5
20	16	26,210	-57.5		289	17.1
15						
10						
7						

ST. CLOUD, MINN.
981 MB

Standard pressure surface (mb)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind Direction	Wind Speed
SURFACE	30	316	- .6	82	184	1.6
1000	30	159				
950	30	574	.4	77	212	5.6
900	30	1,005	.4	67	253	12.4
850	30	1,463	- .7	60	268	12.8
800	30	1,946	- 2.1	50	277	13.2
750	30	2,454	- 4.0	42	279	16.1
700	30	2,999	- 6.7	40	285	20.2
650	30	3,566	- 9.8	39	286	23.7
600	30	4,188	-13.3	39	286	25.3
550	30	4,840	-17.5	43	289	28.2
500	30	5,553	-22.2	46	287	32.1
450	30	6,311	-27.7	45	287	35.0
400	30	7,155	-33.8	43	292	37.9
350	30	8,079	-40.3		287	42.7
300	30	9,113	-47.8		289	48.8
250	30	10,299	-53.6		289	51.5
200	30	11,719	-56.4		287	56.9
175	29	12,573	-56.1		284	54.4
150	28	13,552	-56.7		285	48.0
125	28	14,703	-58.6		283	39.6
100	28	16,100	-59.5		282	31.5
80	28	17,496	-59.7		282	21.8
70	28	18,331	-60.0		277	18.5
60	28	19,295	-59.9		282	15.0
50	28	20,434	-60.2		289	12.6
40	28	21,828	-59.7		292	13.6
30	26	23,637	-59.3		299	13.0
25	25	24,780	-59.4		301	15.2
20	21	26,165	-59.5		304	18.7
15	20	27,968	-59.2		299	27.0
10	15	30,516	-56.9		283	32.4
7	9	32,799	-54.0			

ST. PAUL IS., ALASKA
992 MB

Standard pressure surface (mb)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind Direction	Wind Speed
SURFACE	30	10	.4	86	48	7.0
1000	30	- 57				
950	30	358	- 1.4	81	45	9.5
900	30	785	- 4.4	81	49	7.6
850	30	1,234	- 6.8	74	40	5.1
800	30	1,705	- 9.3	67	41	3.1
750	30	2,203	-12.1	63	30	3.3
700	30	2,726	-15.4	58	40	2.7
650	30	3,280	-18.8	52	27	2.5
600	30	3,875	-22.7	52	352	2.1
550	30	4,505	-26.9	49	330	1.0
500	30	5,190	-31.6	47	286	1.7
450	30	5,924	-37.0		222	1.4
400	30	6,733	-42.8		169	1.6
350	30	7,622	-48.8		211	1.9
300	30	8,623	-52.7		194	6.2
250	30	9,800	-52.2		230	10.7
200	29	11,244	-49.9		241	12.2
175	29	12,119	-49.1		242	12.6
150	29	13,130	-48.8		242	13.6
125	29	14,328	-48.6		244	15.5
100	29	15,796	-48.1		246	16.7
80	29	17,267	-48.1		240	12.6
70	29	18,146	-48.4		240	11.5
60	29	19,160	-48.7		238	12.0
50	27	20,361	-49.0		227	9.9
40	26	21,821	-49.5		224	6.4
30	25	23,697	-49.6		166	3.3
25	25	24,890	-49.6		144	4.9
20	25	26,350	-49.6		132	7.0
15	21	28,249	-49.4		120	6.4
10						

SALEM, OREG.
1012 MB

Standard pressure surface (mb)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind Direction	Wind Speed
SURFACE	30	61	7.0	89	184	6.2
1000	30	157	7.8	83	186	8.2
950	30	576	7.2	73	204	11.5
900	30	1,024	5.7	69	219	14.6
850	30	1,490	3.1	69	230	17.1
800	30	1,979	.5	63	237	19.2
750	30	2,492	- 2.3	60	249	22.0
700	30	3,040	- 5.3	57	251	23.9
650	30	3,614	- 8.8	53	252	24.9
600	30	4,234	-12.6	51	252	27.8
550	30	4,885	-17.3	51	252	30.3
500	30	5,601	-21.9	49	251	35.8
450	30	6,362	-27.1	47	252	41.4
400	30	7,208	-32.6	43	254	44.9
350	30	8,137	-39.1		254	45.3
300	30	9,179	-45.7		261	48.4
250	30	10,377	-51.9		262	51.5
200	30	11,808	-56.0		259	45.3
175	30	12,655	-57.2		260	46.6
150	29	13,626	-58.1		258	41.0
125	29	14,771	-59.9		261	35.8
100	29	16,161	-60.3		262	27.8
80	27	17,551	-59.2		260	19.6
70	27	18,389	-60.1		261	15.5
60	27	19,349	-59.5		265	11.7
50	27	20,489	-59.3		273	5.8
40	27	21,889	-58.4		282	3.7
30	25	23,703	-57.4		298	1.2
25	22	24,857	-55.9		9	3.7
20	18	26,280	-55.6		356	4.3
15	14	28,124	-54.4		340	5.4
10	5	30,671	-56.2			

SALT LAKE CITY, UTAH
875 MB

Standard pressure surface (mb)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind Direction	Wind Speed
SURFACE	30	1,288	1.6	73	159	4.1
1000	30	204				
950	30	625				
900	30	1,066				
850	30	1,528	6.4	51	168	6.8
800	30	2,024	4.7	46	201	8.0
750	30	2,548	1.7	46	238	8.9
700	30	3,101	- 1.9	46	266	12.0
650	30	3,684	- 5.5	45	269	15.3
600	30	4,310	- 9.4	41	277	17.7
550	30	4,976	-13.5	38	276	22.7
500	30	5,696	-18.4	38	274	27.0
450	30	6,473	-23.8	37	273	25.8
400	30	7,326	-29.9		277	28.6
350	30	8,264	-36.9		279	30.1
300	30	9,312	-44.7		282	30.5
250	30	10,511	-52.3		282	37.9
200	30	11,930	-58.2		281	40.0
175	30	12,768	-59.6		281	41.2
150	30	13,728	-61.3		278	37.5
125	30	14,854	-63.4		276	32.4
100	30	16,217	-65.2		280	26.4
80	29	17,581	-64.3		276	17.7
70	29	18,411	-63.0		277	14.4
60	28	19,348	-62.2		281	11.3
50	28	20,476	-61.6		284	7.0
40	27	21,864	-60.1		290	4.7
30	26	23,669	-58.0		301	9.7
25	25	24,820	-56.7		287	7.2
20	22	26,241	-56.2		279	9.7
15	13	28,056	-55.3		285	16.1
10						

SAN ANTONIO, TEXAS
991 MB

Standard pressure surface (mb)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind Direction	Wind Speed
SURFACE	29	243	11.1	81	4	2.7
1000	29	167				
950	29	600	13.4	64	135	3.3
900	29	1,053	12.1	58	226	2.9
850	29	1,531	11.0	47	241	4.5
800	29	2,036	8.9	45	265	6.2
750	29	2,570	6.5	39	298	8.2
700	29	3,132	4.0	34	295	11.1
650	29	3,729	.7		294	14.8
600	29	4,371	- 2.8		287	17.9
550	29	5,047	- 7.5		286	20.6
500	29	5,791	-12.8		288	24.3
450	29	6,581	-18.6		287	26.8
400	29	7,457	-24.6		283	32.6
350	29	8,415	-31.6		280	37.1
300	29	9,486	-39.8		281	40.4
250	29	10,708	-48.7		282	51.3
200	28	12,145	-57.5		284	54.6
175	28	12,982	-61.2		280	56.3
150	28	13,930	-64.7		282	52.8
125	28	15,034	-68.1		278	46.0
100	28	16,367	-69.6		274	33.6
80	26	17,691	-69.7		268	18.5
70	24	18,504	-67.6		263	10.5
60	24	19,430	-64.6		254	7.8
50	24	20,553	-61.5		252	6.6
40	24	21,948	-58.1		215	4.9
30	23	23,772	-55.6		262	5.8
25	23	24,940	-53.7		271	8.9
20	21	26,384	-52.0		273	15.0
15	18	28,251	-50.9		279	22.7
10	6	30,922	-47.2			

SAN DIEGO, CALIF.
1002 MB

Standard pressure surface (mb)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind Direction	Wind Speed
SURFACE	30	124	11.1	86	28	1.9
1000	30	143			40	1.7
950	30	577	13.9	62	360	1.6
900	30	1,032	13.9	41	355	1.4
850	30	1,513	12.1	34	215	1.7
800	30	2,018	9.5	33	226	2.5
750	30	2,548	6.9	27	259	3.7
700	30	3,116	3.9	25	280	6.4
650	30	3,708	.4		292	5.2
600	30	4,353	- 3.7		290	7.8
550	30	5,026	- 8.4		275	10.9
500	30	5,769	-13.4		276	14.2
450	30	6,555	-19.0		278	15.9
400	30	7,430	-25.7		277	18.8
350	30	8,384	-32.9		281	21.6
300	30	9,452	-40.7		267	28.0
250	30	10,672	-49.1		258	37.3
200	30	12,109	-57.1		259	44.1
175	30	12,947	-60.4		260	44.1
150	30	13,901	-63.3		259	37.1
125	30	15,013	-66.2		260	29.3
100	30	16,360	-67.9		263	22.9
80	30	17,704	-67.2		266	19.4
70	30	18,515	-66.0		271	14.2
60	29	19,447	-64.6		270	9.7
50	29	20,566	-62.6		275	9.7
40	29	21,953	-59.9		288	8.9
30	29	23,761	-56.2		265	12.2
25	29	24,925	-54.4		265	14.8
20	28	26,357	-53.2		265	17.5
15	24	28,211	-51.7		269	19.8
10	5	30,867	-50.1			

See reference note at end of table

RAWINSONDE DATA

Average monthly values

NOVEMBER 1952

SAN JUAN, P. R. 1014 MB

Standard pressure surface (mb.)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind Direction	Wind Speed
SURFACE	30	6	23.5	86	83	2.1
1000	30	125	24.3	78	88	7.2
950	30	572	21.8	74	88	10.3
900	30	1,041	18.6	72	88	9.1
850	30	1,530	15.5	71	82	8.4
800	30	2,043	13.0	67	71	6.4
750	30	2,580	10.9	55	65	5.6
700	30	3,158	8.6	38	72	5.2
650	30	3,759	5.8	32	77	4.1
600	30	4,419	2.4		42	2.1
550	30	5,106	- 1.8		347	2.3
500	30	5,868	- 6.7		350	2.7
450	30	6,672	-12.1		331	3.7
400	30	7,573	-18.3		311	6.6
350	30	8,555	-25.4		299	9.7
300	30	9,655	-33.7		295	13.6
250	30	10,906	-43.5		292	14.2
200	30	12,367	-55.5		292	23.9
175	30	13,207	-61.2		289	28.0
150	30	14,150	-67.4		287	28.2
125	30	15,232	-72.9		291	22.3
100	30	16,526	-77.1		314	13.6
80	30	17,804	-77.0		18	6.8
70	30	18,593	-72.9		56	7.0
60	30	19,495	-67.2		67	8.0
50	30	20,612	-61.2		70	8.2
40	27	22,016	-56.7		86	12.2
30	27	23,859	-52.1		90	17.5
25	27	25,045	-50.5		91	22.5
20	25	26,499	-48.2		97	20.8
15	25	28,406	-45.4		98	14.8
10	22	31,144	-40.4		52	2.5
7	15	33,579	-36.2		294	13.6
5	5	35,828	-35.7			

SANTA MONICA, CALIF. 1013 MB

Standard pressure surface (mb.)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind Direction	Wind Speed
SURFACE	30	38	13.3	76	19	3.9
1000	30	149	13.5	72	30	3.3
950	30	582	14.5	53	53	3.9
900	30	1,040	14.3	39	48	3.7
850	30	1,521	12.2	36	60	2.1
800	30	2,026	9.5	30	328	.8
750	30	2,555	6.6	26	298	3.3
700	30	3,122	3.8		289	6.0
650	30	3,715	.2		293	7.4
600	30	4,357	- 4.3		292	8.9
550	30	5,027	- 9.1		287	11.3
500	30	5,768	-14.1		284	14.4
450	30	6,550	-19.5		281	16.9
400	30	7,424	-26.1		281	18.3
350	30	8,375	-33.7		284	20.4
300	30	9,438	-42.0		281	26.2
250	30	10,650	-50.5		272	31.1
200	29	12,079	-57.9		260	37.5
175	29	12,915	-61.0		260	36.9
150	29	13,867	-63.5		262	34.0
125	29	14,981	-65.8		259	29.7
100	29	16,328	-67.9		267	22.7
80	29	17,673	-67.0		267	17.7
70	29	18,487	-65.6		268	13.2
60	28	19,422	-63.8		271	12.4
50	28	20,542	-62.9		280	10.1
40	28	21,924	-60.3		289	7.4
30	27	23,731	-57.2		272	10.1
25	27	24,891	-54.9		265	12.8
20	26	26,322	-53.6		267	18.3
15	24	28,180	-52.3		266	25.5
10	8	30,862	-49.1			
7						
5						

SAULT STE. MARIE, MICH. 993 MB

Standard pressure surface (mb.)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind Direction	Wind Speed
SURFACE	30	221	- .7	83	81	2.1
1000	30	163				
950	30	571	- .6	72	232	3.9
900	30	1,005	- 2.3	68	265	7.8
850	30	1,458	- 3.6	57	270	9.9
800	30	1,935	- 4.9	50	270	[illegible]
750	30	2,442	- 7.1	46	269	15.5
700	30	2,977	- 9.4	44	270	17.9
650	30	3,543	-12.4	47	274	[illegible]
600	30	4,154	-16.0		277	21.0
550	30	4,804	-20.0	36	278	23.7
500	30	5,505	-24.7		278	[illegible]
450	30	6,262	-30.1		278	[illegible]
400	30	7,092	-36.0		279	[illegible]
350	30	8,008	-42.1		275	35.6
300	30	9,037	-48.5		281	34.2
250	30	10,221	-54.0		281	34.6
200	30	11,648	-54.8		[illegible]	36.7
175	30	12,503	-54.4		279	34.8
150	30	13,489	-55.2		279	35.8
125	29	14,652	-56.0		274	30.1
100	29	16,066	-57.7		271	26.4
80	29	17,473	-58.4		272	21.6
70	28	18,318	-58.9		275	19.6
60	27	19,279	-59.4		269	18.5
50	27	20,421	-59.4		[illegible]	16.7
40	26	21,821	-59.5		274	16.1
30	24	23,615	-59.6		276	21.4
25	23	24,766	-59.2		279	22.3
20	23	26,167	-58.6		282	23.3
15	18	27,996	-56.8		289	29.9
10	14	30,559	-54.7		284	37.9
7	8	32,888	-51.7			
5	7	35,164	-48.2			

SHEMYA, ALASKA 996 MB

Standard pressure surface (mb.)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind Direction	Wind Speed
SURFACE	30	38	1.3	79	273	12.2
1000	30	4			263	13.8
950	30	417	- 1.5	71	274	16.4
900	30	844	- 4.9	75	271	17.4
850	30	1,291	- 8.2	73	270	19.8
800	30	1,759	-11.2	66	269	20.4
750	30	2,248	-14.5	67	271	20.2
700	30	2,771	-18.1	56	269	20.4
650	30	3,317	-22.0	44	267	20.4
600	30	3,906	-26.1	42	265	[illegible]
550	30	4,527	-30.4	39	265	26.4
500	30	5,202	-34.9		265	28.6
450	30	5,929	-39.5		261	29.7
400	30	6,731	-43.9		[illegible]	[illegible]
350	30	7,619	-48.[illegible]		264	[illegible]
300	30	8,631	-49.5		262	42.7
250	30	9,826	-48.8		[illegible]	[illegible]
200	30	11,294	-48.2		[illegible]	40.8
175	30	12,173	-48.4		261	43.5
150	29	13,181	-48.8		259	39.6
125	27	14,376	-49.0		258	47.5
100	26	15,836	-48.6		255	[illegible]
80	25	17,296	-49.0		25[illegible]	26.8
70	25	18,170	-49.8		248	25.6
60	25	19,179	-50.4		246	19.2
50	24	20,372	-50.5		244	14.4
40	24	21,827	-50.7		232	8.2
30	23	23,710	-50.2		168	6.4
25	20	24,880	-50.[illegible]		164	6.8
20	17	26,333	-49.6		156	10.7
15	14	28,222	-47.6		130	7.2
10						
7						
5						

SHREVEPORT, LA. 1011 MB

Standard pressure surface (mb.)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind Direction	Wind Speed
SURFACE	30	79	[illegible]	87	347	.6
1000	30	173	[illegible]	75	109	1.2
950	30	603	[illegible]	66	251	[illegible]
900	30	1,049	9.2	59	275	5.6
850	30	1,522	7.4	54	282	7.6
800	30	2,019	5.2	[illegible]	[illegible]	[illegible]
750	30	2,544	[illegible]	48	293	11.5
700	30	3,099	- .3	43	300	14.4
650	30	3,688	- 3.2	37	293	18.7
600	30	4,318	- 6.7	31	289	21.8
550	30	4,988	[illegible]	32	288	25.1
500	30	5,718	-15.6		287	28.[illegible]
450	30	6,497	-21.2		284	31.7
400	30	7,364	-27.2		279	35.6
350	30	8,313	-33.9		276	40.2
300	30	9,376	-41.7		275	45.[illegible]
250	30	10,590	-49.9		271	51.9
200	30	12,024	-57.[illegible]		275	57.1
175	30	12,865	-59.6		278	55.2
150	30	13,821	-63.8		274	49.9
125	29	14,943	-65.8		269	41.4
100	29	16,293	-67.7		273	34.[illegible]
80	27	17,635	-67.[illegible]		270	23.1
70	27	18,456	-65.7		273	17.[illegible]
60	27	19,383	-64.[illegible]		260	14.9
50	26	20,517	-61.[illegible]		251	12.0
40	24	21,911	-58.[illegible]		248	10.5
30	23	23,729	-56.[illegible]		[illegible]	11.[illegible]
25	19	24,896	-54.9		265	13.8
20	20	26,325	-5[illegible].8		267	11.8
15	19	28,177	-52.2		271	28.4
10	15	30,839	-47.5		275	42.4
7	7	33,138	-44.7			
5						

SPOKANE, WASH. 934 MB

Standard pressure surface (mb.)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind Direction	Wind Speed
SURFACE	30	722	2.1	91	176	5.1
1000	30	162				
950	30	579				
900	30	1,019	2.5	84	202	12.4
850	30	1,480	1.2	76	231	15.5
800	30	1,967	- .9	68	246	17.1
750	30	2,479	- 3.6	59	253	18.8
700	30	3,022	- 6.6	55	258	21.6
650	30	3,595	-10.0	51	262	24.7
600	30	4,211	-13.7	50	261	27.4
550	30	4,863	-17.9	47	260	31.1
500	30	5,573	-22.3	48	261	36.7
450	30	6,334	-27.4	49	265	42.4
400	30	7,178	-33.2	48	267	47.4
350	30	8,104	-39.7		265	53.6
300	30	9,141	-46.9		266	61.2
250	30	10,332	-53.5		261	57.7
200	30	11,757	-55.5		265	54.6
175	30	12,608	-56.1		265	48.8
150	30	13,589	-55.8		267	40.6
125	30	14,745	-57.7		271	38.5
100	30	16,149	-59.3		272	30.9
80	29	17,547	-58.3		274	20.8
70	28	18,390	-58.3		273	19.8
60	26	19,356	-58.5		282	12.8
50	25	20,503	-58.1		292	9.3
40	24	21,908	-57.2		307	7.2
30	22	23,736	-56.1		339	6.4
25	22	24,896	-55.4		360	6.0
20	18	26,334	-54.5		6	10.5
15	13	28,167	-54.6			
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7						

SWAN ISLAND, W. I. 1013 MB

Standard pressure surface (mb.)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind Direction	Wind Speed
SURFACE	30	10	25.5	77	19	7.2
1000	30	122	24.9	73	22	10.3
950	30	572	21.6	75	33	12.4
900	30	1,039	18.2	77	33	9.5
850	30	1,527	15.4	71	27	7.8
800	30	2,040	12.8	69	44	4.1
750	30	2,581	10.3	67	86	2.5
700	30	3,154	8.2	50	115	1.9
650	30	3,759	5.3	36	140	1.7
600	30	4,413	2.0		201	3.5
550	30	5,105	- 2.1		236	3.3
500	30	5,861	- 6.9		235	3.7
450	30	6,671	-12.0		236	5.1
400	30	7,567	-18.3		242	7.8
350	30	8,550	-25.2		245	11.1
300	30	9,651	-33.5		246	18.8
250	30	10,903	-43.9		236	25.1
200	30	12,359	-56.0		238	30.5
175	30	13,196	-62.3		244	33.4
150	30	14,133	-68.7		252	30.5
125	30	15,210	-73.4		256	23.7
100	27	16,498	-78.0		259	12.8
80	26	17,770	-78.5		138	2.9
70	26	18,550	-73.4		90	7.2
60	23	19,460	-68.1		94	10.7
50	23	20,570	-63.0		96	13.6
40	23	21,966	-57.0		88	16.5
30	22	23,803	-53.7		85	22.9
25	21	24,984	-51.1		91	26.6
20	13	26,452	-47.6		67	27.4
15						
10						
7						

TAMPA, FLA. 1017 MB

Standard pressure surface (mb.)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind Direction	Wind Speed
SURFACE	30	8	13.0	86	29	4.7
1000	30	154	15.2	77	32	5.6
950	30	586	13.8	73	11	2.7
900	30	1,043	12.1	68	298	4.1
850	30	1,521	10.2	60	276	7.6
800	30	2,024	9.3	43	272	9.1
750	30	2,559	7.3		272	10.5
700	30	3,122	4.9		269	12.6
650	30	3,718	1.4		268	15.5
600	30	4,362	- 2.4		261	19.8
550	30	5,039	- 6.7		266	23.9
500	30	5,784	-11.7		267	29.1
450	30	6,579	-16.5		268	32.1
400	30	7,459	-22.8		268	36.3
350	30	8,424	-29.9		264	41.2
300	30	9,503	-37.8		264	47.0
250	30	10,734	-47.1		260	53.2
200	30	12,178	-56.3		258	58.1
175	30	13,016	-60.7		255	59.7
150	30	13,962	-64.3		259	54.2
125	30	15,071	-67.3		263	46.8
100	30	16,404	-70.2		261	36.9
80	30	17,729	-69.7		260	20.4
70	30	18,540	-66.8		257	11.5
60	30	19,468	-64.3		239	4.1
50	30	20,592	-61.1		125	2.7
40	28	21,992	-58.4		33	4.9
30	24	23,818	-54.5		41	2.5
25	24	24,992	-51.9		289	3.9
20	17	26,434	-50.3		266	19.8
15	7	28,273	-48.9			
10						
7						

TATOOSH IS., WASH 1011 MB

Standard pressure surface (mb.)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind Direction	Wind Speed
SURFACE	30	31	8.9	83	152	7.5
1000	30	121	8.8	80	160	9.5
950	30	540	6.7	77	195	15.3
900	30	986	4.0	78	214	17.1
850	30	1,449	1.5	75	225	17.7
800	30	1,934	- 1.5	71	228	18.7
750	29	2,439	- 5.0	62	230	20.4
700	28	2,986	- 8.2	54	236	22.0
650	28	3,552	-12.0	50	240	25.8
600	28	4,165	-15.6	47	242	29.9
550	28	4,811	-19.9	47	249	34.3
500	28	5,516	-24.7	44	243	[illegible]
450	28	6,265	-30.1	45	251	40.6
400	28	7,104	-35.7		252	44.1
350	28	8,020	-41.7		257	48.4
300	28	9,052	-47.4		259	51.9
250	28	10,243	-52.3		258	56.5
200	28	11,676	-54.5		258	50.3
175	28	12,530	-55.1		258	47.6
150	28	13,512	-56.0		258	43.9
125	27	14,672	-56.1		257	36.9
100	26	16,093	-57.4		258	28.8
80	26	17,501	-57.6		254	[illegible]
70	26	18,345	-57.5		260	17.5
60	26	19,315	-58.3		263	14.6
50	25	20,463	-57.4		272	10.9
40	25	21,872	-57.5		294	7.0
30	25	23,693	-56.2		315	5.6
25	24	24,856	-55.4		349	4.7
20	23	26,283	-54.5		1	8.0
15	19	28,132	-54.4		18	12.4
10	13	30,723	-53.7		18	19.6
7	7	33,070	-51.1			

TOPEKA, KANS. 988 MB

Standard pressure surface (mb.)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind Direction	Wind Speed
SURFACE	30	269	2.7	[illegible]	180	[illegible]
1000	30	168				
950	30	587	4.9	65	217	4.1
900	30	1,493	3.6	52	283	9.5
850	30	1,983	1.9	49	282	10.9
800	30	2,499	.1	43	295	12.4
750	30	3,052	- 2.7	42	290	14.0
700	30	3,628	- 6.2	41	289	16.5
650	30	4,259	- 9.9	36	290	20.8
600	30	4,917	-13.9	33	296	24.5
550	30	5,643	-18.9		292	26.6
500	30	6,411	-24.6		288	29.5
450	30	7,266	-30.5		289	31.7
400	30	8,203	-37.4		289	36.5
350	30	9,252	-44.4		289	42.4
300	30	10,454	-51.4		288	48.6
250	30	11,886	-56.7		287	50.5
200	30	12,730	-57.9		285	46.8
175	30	13,700	-60.[illegible]		284	43.5
150	30	14,832	-62.0		282	36.1
125	29	16,208	-63.8		279	29.7
100	28	17,578	-63.4		281	22.5
80	28	18,401	-62.5		278	19.0
70	25	19,353	-62.0		280	14.0
60	25	20,483	-61.1		276	12.0
50	24	21,874	-60.[illegible]		276	11.9
40	22	23,677	-58.[illegible]		284	15.0
30	18	24,823	-58.3		292	14.[illegible]
25	13	26,217	-57.[illegible]		311	15.2
20						
15						
10						
7						

TRUK, CAROLINE IS. 1008 MB

Standard pressure surface (mb.)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind Direction	Wind Speed
SURFACE	30	2	27.3	83	40	3.3
1000	30	69	27.1	82	61	3.5
950	30	517	24.4	83	81	7.0
900	30	997	21.5	82	84	8.4
850	30	1,492	18.7	79	82	7.4
800	29	2,013	16.0	73	90	6.6
750	29	2,561	13.4	66	94	7.0
700	29	3,140	10.5	63	96	5.8
650	29	3,752	7.0	62	95	6.8
600	29	4,409	3.2	62	93	8.4
550	29	5,107	- .7	62	79	7.4
500	29	5,867	- 5.2	58	85	7.8
450	29	6,686	-10.0	57	91	7.0
400	29	7,590	-15.1	54	89	7.4
350	29	8,587	-21.5	51	97	9.5
300	29	9,704	-29.8	46	88	9.1
250	29	10,976	-40.4		95	9.1
200	29	12,456	-52.9		94	10.3
175	29	13,303	-60.2		93	10.1
150	29	14,247	-68.2		90	8.4
125	29	15,319	-76.3		76	14.0
100	27	16,584	-81.9		87	19.8
80	25	17,842	-79.6		92	17.7
70	23	18,608	-75.1		92	13.0
60	22	19,517	-69.4		94	10.5
50	20	20,614	-66.0		98	16.9
40	18	21,988	-61.4		95	37.5
30	18	23,798	-55.8		97	52.1
25	17	24,964	-53.2		91	55.6
20	16	26,420	-49.1		88	56.7
15	14	28,344	-41.7		102	43.7
10	6	31,116	-38.8			
7						
5						

TUCSON, ARIZ. 926 MB

Standard pressure surface (mb.)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind Direction	Wind Speed
SURFACE	30	789	10.6	49	149	7.4
1000	30	138				
950	30	569				
900	30	1,027	16.2	34	160	4.1
850	30	1,511	14.2	33	171	1.0
800	30	2,020	10.8	35	228	3.1
750	30	2,551	7.4	34	238	5.1
700	30	3,119	3.9	31	240	7.8
650	30	3,713	.2		242	10.7
600	30	4,354	- 3.7		243	13.8
550	30	5,027	- 8.2		242	15.9
500	30	5,770	-13.3		253	18.8
450	30	6,557	-18.6		253	23.1
400	30	7,434	-24.6		260	26.2
350	30	8,392	-31.9		264	28.6
300	30	9,464	-39.5		264	37.3
250	30	10,688	-48.3		268	45.3
200	30	12,127	-57.0		267	[illegible]
175	30	12,965	-60.3		269	51.3
150	30	13,918	-63.5		269	40.4
125	30	15,028	-67.0		272	36.9
100	29	16,372	-67.8		272	28.8
80	29	17,713	-67.8		272	17.7
70	28	18,531	-66.6		269	14.2
60	28	19,456	-64.6		271	[illegible]
50	28	20,574	-62.8		279	[illegible]
40	28	21,959	-59.5		269	[illegible]
30	26	23,777	-55.6		264	11.3
25	26	24,942	-54.5		265	13.2
20	25	26,371	-53.3		268	14.5
15	23	28,232	-51.3		274	20.6
10	19	30,881	-48.5		274	31.1
7	9	33,287	-45.0			
5						

WAKE IS., PACIFIC AREA 1015 MB

Standard pressure surface (mb.)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind Direction	Wind Speed
SURFACE	30	5	26.4	81	70	14.8
1000	30	133	25.4	81	74	17.7
950	30	582	21.8	81	81	19.6
900	30	1,051	18.6	79	89	19.6
850	30	1,541	15.8	76	92	[illegible]
800	30	2,054	13.7	62	93	15.2
750	30	2,596	11.7	51	89	13.8
700	30	3,171	8.8	39	83	12.2
650	30	3,775	5.5	34	78	12.4
600	30	4,430	1.4	34	68	[illegible]
550	30	5,119	- 2.5	33	65	12.0
500	30	5,876	- 7.0	31	54	14.4
450	30	6,685	-12.1		45	14.0
400	30	7,581	-18.1		27	[illegible]
350	30	8,566	-24.9		2	11.9
300	30	9,669	-32.4		348	[illegible]
250	30	10,931	-41.6		329	13.2
200	30	12,404	-53.3		329	[illegible]
175	30	13,252	-59.4		331	12.8
150	[illegible]	14,201	-66.6		354	[illegible]
125	[illegible]	15,288	-72.[illegible]		[illegible]	[illegible]
100	[illegible]	16,576	-78.4		64	[illegible]
80	30	17,842	-79.6		82	17.5
70	29	18,604	-76.6		[illegible]	[illegible]
60	29	19,507	-69.[illegible]		[illegible]	[illegible]
50	29	20,610	-63.5		[illegible]	[illegible]
40	29	21,997	-58.7		[illegible]	14.[illegible]
30	29	23,825	-53.6		[illegible]	[illegible]
25	29	25,003	-51.5		[illegible]	[illegible]
20	29	26,458	-49.4		[illegible]	[illegible]
15	28	28,357	-46.9		[illegible]	15.9
10	27	31,[illegible]	-45.2		[illegible]	[illegible]
7	23	33,449	-41.3		[illegible]	[illegible]
5	16	35,704	-39.5		[illegible]	[illegible]

WASHINGTON, D. C. 1009 MB

Standard pressure surface (mb.)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind Direction	Wind Speed
SURFACE	30	84	1.9	79	316	2.7
1000	30	160			356	[illegible]
950	30	579	4.0	65	349	6.4
900	30	1,017	2.8	57	336	[illegible]
850	30	1,478	1.1	52	[illegible]	[illegible]
800	30	1,965		44	300	[illegible]
750	30	2,480	- 1.7	41	285	[illegible]
700	30	3,028	- 4.2	[illegible]	278	[illegible]
650	30	3,606	- 7.[illegible]	[illegible]	272	14.4
600	30	4,230	[illegible]	[illegible]	263	[illegible]
550	30	4,893	-14.4		265	[illegible]
500	30	5,612	-19.3	[illegible]	[illegible]	[illegible]
450	[illegible]	[illegible]	-24.7		257	[illegible]
400	[illegible]	7,236	-31.0	[illegible]	[illegible]	[illegible]
350	[illegible]	8,170	-37.4		256	[illegible]
300	[illegible]	9,220	[illegible]		264	[illegible]
250	[illegible]	10,423	-51.0		265	[illegible]
200	[illegible]	11,859	-55.3		264	[illegible]
175	[illegible]	12,709	-56.2		264	[illegible]
150	[illegible]	13,684	-58.3		262	[illegible]
125	[illegible]	[illegible]	-60.5		258	[illegible]
100	[illegible]	16,207	-61.9		[illegible]	[illegible]
80	[illegible]	17,587	-61.8		[illegible]	[illegible]
70	[illegible]	18,423	-61.0		260	[illegible]
60	30	19,374	-60.7		260	[illegible]
50	[illegible]	20,509	-60.2		259	[illegible]
40	[illegible]	21,903	-59.5		268	[illegible]
30	30	23,705	-59.0		274	[illegible]
25	[illegible]	24,850	-58.5		[illegible]	[illegible]
20	26	26,246	-57.5		[illegible]	[illegible]
15	21	28,071	-55.2		272	[illegible]
10	[illegible]	30,680	-52.2		275	[illegible]
7	13	32,983	-48.3		271	[illegible]
5	11	35,216	-45.1			

WINNEMUCCA, NEV. 873 MB

Standard pressure surface (mb.)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind Direction	Wind Speed
SURFACE	30	1,310	[illegible]	79	151	[illegible]
1000	[illegible]	205				
950	[illegible]	624				
900	[illegible]	1,063				
850	[illegible]	1,523	5.5	[illegible]	177	[illegible]
800	[illegible]	2,019	4.1	[illegible]	244	[illegible]
750	[illegible]	2,538	1.2	49	257	[illegible]
700	[illegible]	3,093	- 1.9	41	261	[illegible]
650	[illegible]	3,675	- 5.5	[illegible]	262	[illegible]
600	[illegible]	4,303	- 8.9	[illegible]	263	[illegible]
550	[illegible]	[illegible]	-12.7	[illegible]	271	[illegible]
500	[illegible]	5,693	-17.5		266	[illegible]
450	[illegible]	6,468	-23.2		274	[illegible]
400	[illegible]	7,327	[illegible]		278	[illegible]
350	[illegible]	8,266	[illegible]		276	[illegible]
300	[illegible]	9,317	-44.3		[illegible]	[illegible]
250	[illegible]	10,509	-52.5		275	[illegible]
200	[illegible]	11,928	-58.6		273	[illegible]
175	[illegible]	12,766	-59.5		274	[illegible]
150	[illegible]	13,728	-60.1		269	[illegible]
125	[illegible]	14,861	-62.0		267	[illegible]
100	[illegible]	16,235	[illegible]		[illegible]	[illegible]
80	17	17,610	[illegible]		269	15.5
70	[illegible]	18,435	[illegible]		272	[illegible]
60	[illegible]	19,380	-62.4		[illegible]	[illegible]
50	[illegible]	[illegible]	[illegible]		284	[illegible]
40	[illegible]	21,898	[illegible]		301	[illegible]
30	[illegible]	23,704	-57.7		310	[illegible]
25	17	24,855	-56.6		320	[illegible]
20	15	26,266	-55.4		302	[illegible]
15	[illegible]	28,109	-53.9		[illegible]	[illegible]
10	[illegible]	30,691	-52.5			
7						
5						

See reference note at end of table

RAWINSONDE DATA

Average monthly values

Standard pressure surface (mb)	WINSLOW, ARIZ. 854 MB						YAKUTAT, ALASKA 995 MB					
	Number of observations	Dynamic height	Temperature	Relative humidity	Wind		Number of observations	Dynamic height	Temperature	Relative humidity	Wind	
					Direction	Speed					Direction	Speed
SURFACE	30	1,492	3.0	72	165	2.1	30	12	1.8	88	104	6.6
1000	30	193					30	- 29			101	9.9
950	30	618					30	386	2.7	73	117	16.9
900	30	1,064					30	823	.0	73	132	18.5
850	30	1,534	4.3	62	164	2.3	30	1,278	- 3.0	76	140	17.7
800	30	2,033	7.8	41	286	2.1	30	1,756	- 6.2	78	146	15.2
750	30	2,561	5.1	36	268	3.9	30	2,257	- 9.5	78	154	15.0
700	30	3,122	1.6	36	265	6.0	30	2,789	-13.0	76	161	16.1
650	30	3,709	- 1.9	35	265	9.5	30	3,346	-17.0	69	166	16.3
600	30	4,347	- 6.0	33	273	11.7	30	3,946	-21.1	65	174	16.1
550	30	5,014	-10.7		270	13.2	30	4,577	-25.7	60	178	16.9
500	30	5,749	-15.4		272	16.7	30	5,267	-30.8	55	183	17.3
450	30	6,526	-20.9		271	18.1	30	6,000	-36.4	51	190	18.7
400	30	7,397	-27.3		269	23.7	30	6,814	-42.6		200	19.4
350	30	8,344	-34.2		275	25.8	29	7,699	-48.8		208	22.3
300	30	9,406	-41.9		272	32.4	29	8,701	-52.8		212	20.6
250	30	10,618	-50.6		273	40.0	29	9,879	-51.4		225	19.6
200	30	12,044	-58.2		270	47.0	29	11,335	-49.6		233	20.8
175	30	12,880	-60.6		272	45.5	29	12,209	-49.6		241	21.4
150	30	13,833	-63.3		274	40.0	29	13,218	-49.8		244	19.8
125	30	14,945	-66.3		272	33.8	29	14,409	-50.3		248	20.8
100	30	16,290	-67.9		273	26.2	29	15,866	-50.3		253	20.0
80	30	17,632	-67.1		272	18.1	28	17,311	-49.9		259	20.0
70	30	18,445	-66.1		274	15.7	27	18,182	-50.1		261	19.8
60	28	19,380	-64.7		274	13.0	27	19,186	-50.6		270	18.7
50	27	20,501	-63.1		276	9.9	26	20,374	-50.6		280	15.5
40	27	21,882	-60.5		277	9.7	26	21,829	-50.7		285	14.2
30	25	23,690	-57.5		265	12.8	23	23,691	-51.3		305	13.0
25	24	24,846	-55.9		264	15.5	21	24,865	-51.3		313	13.6
20	23	26,277	-54.8		270	20.2	20	26,311	-51.6		316	14.8
15	17	28,140	-53.3				19	28,171	-52.1		323	23.1
10							5	30,776	-51.6			

Standard pressure surface (mb)	YUCCA FLAT, NEV. 884 MB						YUMA, ARIZ. 998 MB					
	Number of observations	Dynamic height	Temperature	Relative humidity	Wind		Number of observations	Dynamic height	Temperature	Relative humidity	Wind	
					Direction	Speed					Direction	Speed
SURFACE	30	1,196	- .6	52	344	2.9	26	131	13.0	38	22	1.4
1000	30	196					26	118				
950	30	612					26	557	20.2	28	331	4.1
900	30	1,051					26	1,020	17.9	25	342	2.7
850	30	1,523	9.7	40	360	4.3	26	1,506	14.6	23	254	.6
800	30	2,024	7.4	37	297	1.9	26	2,014	11.1	25	219	3.3
750	30	2,551	4.5	35	251	3.9	26	2,547	8.0	26	213	4.3
700	30	3,112	1.7	27	239	4.3	26	3,115	4.6	28	223	4.5
650	30	3,703	- 1.8		271	7.6	26	3,712	1.1	27	233	8.0
600	30	4,338	- 5.9		274	12.8	26	4,353	- 3.1	27	245	9.9
550	30	5,009	-10.5		278	17.5	26	5,031	- 8.0	26	253	9.7
500	30	5,741	-15.7		272	16.5	26	5,769	-13.0	23	260	13.0
450	30	6,519	-21.4		277	20.2	26	6,558	-18.4	21	248	18.1
400	30	7,387	-28.0		278	23.1	26	7,431	-25.0	21	243	23.1
350	30	[illegible],331	-35.4		276	25.[illegible]	26	8,388	-32.4	24	243	28.0
300	30	9,386	-43.1		281	28.0	26	9,456	-40.3		244	34.2
250	30	10,594	-50.8		278	35.2	26	10,676	-49.0		242	41.6
200	30	12,024	-57.7		258	34.0	24	12,122	-57.5		251	45.7
175	29	12,870	-60.2		260	35.6	22	12,957	-60.8		252	47.2
150	29	13,828	-62.0		265	36.3	20	13,900	-63.4		254	39.8
125	29	14,949	-64.8		272	30.1	15	15,010	-66.9		249	39.6
100	29	16,304	-66.6		258	25.1	11	16,347	-68.1		250	30.9
80	29	17,655	-65.8		269	18.7	5	17,718	-68.9			
70	29	18,476	-64.3		272	14.2						
60	29	19,412	-63.4		281	13.0						
50	29	20,535	-62.0		289	9.9						
40	29	21,921	-59.9		299	6.0						
30	26	23,732	-57.1		270	8.2						
25	23	24,898	-55.4		260	6.8						
20	20	26,318	-54.2		254	6.2						
15	15	28,164	-53.5		279	22.7						
10												

Note: All observations scheduled at 1200, G.C.T. Pressures shown under station names are the average monthly station pressures for the month of record, corrected to the height of the floors of the instrument shelters used for rawinsonde purposes. "Number of observations" refers to those of dynamic height only. Although the number of temperature observations at any given pressure surface is usually the same as for height, it is possible for temperature to be missing for one or more pressure surfaces of some observations. Relative humidity averages are limited to those observations with temperatures warmer than -40°C. Observations of wind speed and direction are sometimes lost due to limiting angles, i.e., elevation angles less than 6° above the horizon, or any obstruction above the horizon.

The temperature and wind values are based on 15 or more observations at the surface or 5 observations at a standard pressure level for temperature and 10 for wind. Relative humidity data are not published for standard pressure surfaces for which less than 16 observations are available.

Relative humidity data are computed and expressed on the basis of vapor pressure over water. Unless otherwise indicated, they are obtained from lithium chloride hygristors.

These average values for standard pressure surfaces were obtained by rawinsondes; dynamic height (geopotential) in units of .98 dynamic meter, temperature in degrees Celsius, relative humidity in percent, and resultant winds in degrees and knots.

SOLAR RADIATION DATA

Solar radiation intensities, tabulated in langleys per minute on a surface normal to the direction of the sun

ALBUQUERQUE, N. MEX.

Date	A.M. 78.7°	A.M. 75.7°	A.M. 70.7°	A.M. 60.0°	*	P.M. 60.0°	P.M. 70.7°	P.M. 75.7°	P.M. 78.7°
Air mass	4.19	3.35	2.51	1.67	*	1.67	2.51	3.35	4.19
Nov.									
1-----	0.95	1.07	1.20	1.38	1.49	1.39	1.24	1.10	0.98
2-----	1.00	1.12	1.25	1.37	1.50	1.36	1.18	1.05	.93
3-----	.99	1.11	1.25	1.40	1.44	1.41	1.27	1.14	1.02
5-----	1.03	1.13	1.24	1.41	1.50	1.44	1.27	1.13	1.01
6-----	----	----	1.33	1.46	1.53	1.50	1.34	1.22	1.13
7-----	----	1.19	1.32	1.47	1.53	1.46	1.30	1.16	1.02
8-----	1.14	1.22	1.35	1.49	1.60	1.55	1.41	1.18	1.11
9-----	1.14	1.24	1.35	1.45	1.52	----	----	----	1.01
10----	1.01	1.14	1.27	1.45	1.50	1.38	1.21	1.06	.94
11----	1.09	1.21	1.33	1.48	1.53	1.47	1.32	1.15	1.05
12----	1.12	1.23	1.34	1.46	1.51	1.46	1.31	1.15	1.08
13----	----	----	----	(1.37)	(1.40)	(1.37)	(1.21)	(1.05)	(.92)
16----	----	----	----	----	----	----	----	----	.83
18----	----	----	----	----	----	----	----	----	.86
19----	1.04	1.15	1.28	(1.48)	1.53	1.49	(1.33)	(1.18)	----
20----	1.08	1.16	1.25	1.40	1.50	1.44	1.24	1.05	.88
21----	1.03	1.11	1.19	1.37	1.45	1.46	1.32	1.20	1.10
24----	----	----	1.24	1.41	----	1.37	1.21	----	.94
26----	.83	1.09	1.22	1.39	----	1.43	1.30	1.18	.89
27----	1.09	1.20	1.29	1.45	1.52	1.47	1.29	1.14	1.05
28----	1.03	1.18	1.31	1.47	1.53	1.44	1.31	1.17	1.08
Averages	1.04	1.16	1.28	1.43	1.51	1.44	1.28	1.14	1.00

TUCSON, ARIZ.

Date	A.M. 78.7°	A.M. 75.7°	A.M. 70.7°	A.M. 60.0°	*	P.M. 60.0°	P.M. 70.7°	P.M. 75.7°	P.M. 78.7°
Air mass	4.56	3.65	2.74	1.83	*	1.83	2.74	3.65	4.56
Nov.									
5-----	0.89	----	----	----	----	----	----	----	----
6-----	.89	0.98	1.10	----	----	----	----	----	----
7-----	.89	1.02	----	----	----	----	----	----	----
8-----	1.03	1.14	1.25	----	----	----	----	----	----
9-----	.91	----	----	----	----	----	----	----	----
10----	.90	1.02	1.10	----	----	----	----	----	----
11----	.96	1.06	1.19	----	----	----	----	----	----
12----	.96	1.06	----	----	----	----	----	----	----
17-22-		Instrument inoperative							
26----	.92	----	----	----	----	----	----	----	----
27----	.92	----	----	----	----	----	----	----	----
Averages	0.93	1.05	1.16	----	----	----	----	----	----

GUAM, M. I.

Date	A.M. 78.7°	A.M. 75.7°	A.M. 70.7°	A.M. 60.0°	*	P.M. 60.0°	P.M. 70.7°	P.M. 75.7°	P.M. 78.7°
Air mass	4.92	3.93	2.95	1.97	*	1.97	2.95	3.93	4.92
Nov.			No observations due to cloudiness						
12-18			Power failure due to typhoon KAREN						

( ) Clouds present
* Values corresponding to true solar noon.
HS Slight haze
HI Intense haze
HM Moderate haze

BLUE HILL OBS., MASS.

Date	A.M. 78.7°	A.M. 75.7°	A.M. 70.7°	A.M. 60.0°	*	P.M. 60.0°	P.M. 70.7°	P.M. 75.7°	P.M. 78.7°
Air mass	4.89	3.92	2.94	1.96	*	1.96	2.94	3.92	4.89
Nov.									
7-----	1.10	1.20	1.30	1.50	1.52	1.50	1.32	1.16	1.04
12----	1.18	1.28	1.40	----	----	----	----	----	----
16----	1.17	1.28	1.39	----	1.54	----	1.39	1.20	1.00
19----	1.25	1.36	1.47	----	1.59	----	----	----	----
23----	1.01	1.13	1.32	----	1.45	----	1.29	1.15	1.04
26----	1.03	1.13	1.32	----	1.50	----	1.40	1.24	1.15
27----	1.17	1.27	1.35	----	1.36	----	1.30	1.21	1.05
28----	1.17	1.25	1.39	----	1.50	----	1.33	1.22	1.10
29----	1.12	1.23	1.35	----	1.45	----	1.33	1.07	.89
30----	1.12	1.23	1.36	----	1.51	----	1.39	1.21	1.06
Averages	1.13	1.24	1.37	1.50	1.49	1.50	1.34	1.18	1.04

MAUNA LOA OBS., HAWAII

Date	A.M. 78.7°	A.M. 75.7°	A.M. 70.7°	A.M. 60.0°	*	P.M. 60.0°	P.M. 70.7°	P.M. 75.7°	P.M. 78.7°
Air mass	3.36	2.69	2.01	1.34	*	1.34	2.01	2.69	3.36
Nov.									
1-----	1.24	1.32	1.42	1.52	1.62	----	1.35	1.25	1.16
2-----	1.24	1.31	1.41	1.51	1.60	1.48	1.37	1.28	1.18
3-----	1.25	1.32	1.43	1.53	1.61	1.48	1.36	1.26	1.17
4-----	1.26	1.34	1.42	1.53	1.62	1.50	1.38	1.30	1.24
5-----	1.27	1.35	1.44	1.55	1.62	1.50	1.37	1.29	1.23
6-----	1.27	1.34	1.44	1.54	----	----	----	----	----
7-----	----	----	----	1.52	1.61	1.49	1.38	1.28	1.21
8-----	1.24	1.32	1.45	1.53	1.62	1.50	1.39	1.31	1.24
9-----	----	----	1.45	1.55	----	----	1.37	1.28	----
10----	----	----	1.39	1.51	----	----	----	----	----
13----	1.28	1.36	1.45	1.55	1.64	1.55	1.43	1.35	----
14----	1.25	1.33	1.42	1.53	1.61	1.54	1.43	1.35	1.26
15----	1.27	1.35	1.44	1.54	1.60	1.53	1.43	1.34	----
16----	----	----	----	----	1.64	1.53	1.42	1.32	1.22
20----	----	----	----	1.53	----	1.52	1.41	1.32	1.24
21----	1.29	1.35	1.45	1.56	1.65	1.56	----	----	----
23----	1.26	1.33	1.45	----	----	----	1.43	1.32	1.27
24----	1.24	1.32	1.44	1.56	1.66	1.57	1.47	1.38	1.30
25----	1.28	1.36	1.46	1.57	1.65	1.55	1.45	1.36	1.29
26----	1.26	1.35	1.44	1.57	1.65	1.56	1.46	1.39	1.31
27----	1.33	1.40	1.49	1.59	1.67	1.59	1.50	1.40	1.34
28----	1.20	1.29	1.38	----	1.60	----	----	----	----
29----	----	1.31	1.41	1.53	1.61	1.51	1.40	1.30	1.23
Averages	1.26	1.34	1.43	1.54	1.63	1.53	1.41	1.32	1.24

OMAHA, NEBR.

Date	A.M. 78.7°	A.M. 75.7°	A.M. 70.7°	A.M. 60.0°	*	P.M. 60.0°	P.M. 70.7°	P.M. 75.7°	P.M. 78.7°
Air mass	4.78	3.82	2.87	1.91	*	1.91	2.87	3.82	4.78
Nov.									
5-----	----	----	----	----	----	HS1.21	HS1.11	HS0.96	----
7-----	----	----	1.17	----	----	----	----	----	----
20----	----	----	HS1.00	HS0.96	----	----	HS1.15	HS1.01	----
22----	----	HS1.06	HS1.16	HS1.25	HS1.36	----	----	----	----
25----	----	HI .96	HI1.05	HM1.15	HM1.27	HS1.19	HS1.06	HS1.01	----
Averages	----	1.01	1.10	1.12	1.32	1.20	1.11	0.99	----

Langley is the unit used to denote one gram calorie per square centimeter. An explanation of the formula used in computing the air mass values for each station listed above appears in the February 1957 issue, Vol. 8, No. 2, page 63, of this publication.

SOLAR RADIATION DATA

Daily totals and weekly averages of solar radiation (direct and diffuse) received on a horizontal surface, tabulated in langleys.

	Albuquerque, N.Mex.	Ames, Iowa	Annette, Alaska	Apalachicola, Fla.	Astoria, Oreg.	Atlanta, Ga.	Barrow, Alaska	Bethel, Alaska	Bismarck, N. Dak.	Blue Hill Obs.,Mass	Boise, Idaho	Boston, Mass.	Brownsville, Tex.	Canton Island, Pacific Area	Caribou, Maine	Charleston, S. C.	Cleveland, Ohio	Columbia, Mo.
1962																		
Nov. 5----	398	275	25	450	75	438	4	113	232	212	104	186	221	---	66	285	70	314
Nov. 6----	395	255	7	456	242	415	3	34	65	70	277	55	172	586	89	403	219	84
Nov. 7----	399	100	130	364	146	346	6	24	194	325	276	277	383	648	---	367	39	270
Nov. 8----	401	142	72	105	97	81	4	26	223	184	176	143	373	691	133	230	85	245
Nov. 9----	383	282	46	342	177	44	3	10	140	231	94	230	468	641	200	66	37	359
Nov. 10----	378	264	46	460	96	371	3	83	147	56	217	44	457	663	36	401	4	311
Nov. 11----	381	197	38	423	73	383	3	50	244	116	136	119	448	677	7	394	41	182
Average------	391	217	52	371	129	297	4	49	178	172	183	151	360	651	88	306	71	**252**
Nov. 12----	380	238	96	306	56	56	17	29	239	315	108	284	455	694	132	225	99	317
Nov. 13----	---	254	103	315	79	380	3	42	142	33	212	22	443	694	129	323	96	318
Nov. 14----	156	228	25	424	124	373	1	24	91	143	109	113	444	654	61	385	182	266
Nov. 15----	---	111	59	415	80	358	1	41	54	169	176	164	428	676	46	(376)	167	98
Nov. 16----	---	59	22	375	103	257	4	45	63	301	167	275	426	(625)	101	330	15	10
Nov. 17----	247	48	26	376	54	95	1	19	137	161	95	178	409	641	174	318	3	26
Nov. 18----	168	48	11	186	52	163	+	16	135	9	149	14	80	656	208	183	17	95
Average------	238	141	49	343	78	241	4	31	123	161	145	150	384	(663)	122	(306)	83	**161**
Nov. 19----	---	64	116	361	4	283	---	28	174	310	64	265	169	650	---	271	134	40
Nov. 20----	347	222	34	118	27	44	---	34	148	84	32	65	146	671	172	43	52	290
Nov. 21----	385	177	28	152	57	19	---	91	207	105	213	102	416	603	34	306	13	267
Nov. 22----	359	255	33	387	160	359	---	18	172	22	131	20	283	679	17	302	53	296
Nov. 23----	275	227	7	421	159	348	---	70	213	263	185	209	216	696	134	374	142	175
Nov. 24----	337	183	27	387	79	254	---	52	220	106	220	101	244	681	185	330	89	223
Nov. 25----	244	234	67	317	6	156	---	38	200	174	166	161	326	638	205	107	170	263
Average------	324	195	45	306	70	209	---	47	191	152	144	132	257	660	124	248	93	222
Nov. 26----	338	123	19	397	127	344	---	41	181	270	31	244	300	618	149	357	192	182
Nov. 27----	(337)	94	20	392	130	316	---	18	175	257	---	229	228	660	177	71	186	142
Nov. 28----	(359)	45	15	66	122	60	---	19	61	261	67	226	241	638	171	42	176	253
Nov. 29----	219	203	32	119	16	205	---	32	14	261	207	225	250	587	168	89	160	244
Nov. 30----	92	191	35	114	40	304	---	24	40	259	150	212	178	583	143	188	172	233
Dec. 1----	59	146	33	344	53	325	---	63	58	254	85	226	92	672	153	322	157	221
Dec. 2----	336	86	74	348	20	306	---	15	184	194	19	135	190	657	41	315	166	204
Average------	(249)	127	32	254	73	266	---	30	102	251	93	214	211	631	143	198	173	211

	Corvallis, Oreg.	Davis, Calif.	Dodge City, Kans.	East Lansing, Mich.	El Paso, Tex	Ely, Nev.	Fairbanks, Alaska	Flaming Gorge, Utah	Fort Worth, Tex.	Fresno, Calif.	Gainesville, Fla.	Glasgow, Mont.	Grand Junction,Colo	Great Falls, Mont.	Greensboro, N. C.	Griffin, Ga.	Cape Hatteras, N.C.	Indianapolis, Ind.	Inyokern China Lake, Calif.	Ithaca, N. Y.	Lake Charles, La.	Lander, Wyo
1962																						
Nov. 5----	---	236	---	162	341	203	72	278	(379)	312	550	124	360	75	242	487	157	170	423	159	353	218
Nov. 6----	223	344	266	228	429	309	---	317	201	239	424	213	388	172	366	463	361	327	440	207	179	269
Nov. 7----	204	335	298	71	442	355	16	343	44	313	364	254	392	233	355	323	373	104	445	258	196	307
Nov. 8----	50	270	344	90	438	341	41	316	414	299	67	150	380	200	273	116	---	123	430	79	180	245
Nov. 9----	161	208	313	55	437	289	49	260	399	303	186	136	295	---	126	86	94	52	421	134	381	249
Nov. 10----	97	319	327	114	425	332	11	165	395	326	485	181	298	218	218	442	200	296	411	88	383	242
Nov. 11----	102	316	329	116	429	341	20	331	379	316	480	213	370	190	365	453	355	250	406	26	270	286
Average------	140	290	313	120	420	310	35	287	(316)	301	365	182	355	181	278	339	257	189	425	136	277	260
Nov. 12----	137	257	330	---	423	334	40	322	406	177	131	222	379	123	306	119	329	112	357	181	386	280
Nov. 13----	210	270	314	138	395	304	25	271	380	135	357	199	346	152	289	433	110	305	238	20	403	134
Nov. 14----	85	291	253	184	343	208	27	179	381	106	428	---	60	135	365	446	269	274	373	134	392	155
Nov. 15----	109	303	56	148	151	287	27	158	333	275	429	80	137	174	302	427	341	133	---	248	355	55
Nov. 16----	215	319	86	29	247	243	24	243	269	301	397	111	231	146	176	276	274	14	402	207	281	169
Nov. 17----	63	290	150	30	261	187	14	277	31	219	360	96	329	155	83	167	241	25	331	37	---	267
Nov. 18----	106	311	140	170	363	---	8	180	61	309	264	131	157	187	122	268	228	135	397	18	---	183
Average------	132	292	190	117	312	260	24	233	266	217	338	140	234	153	235	305	256	143	350	121	363	178
Nov. 19----	52	299	251	158	129	291	18	167	74	293	287	100	282	64	173	364	139	54	397	219	---	125
Nov. 20----	39	293	303	33	386	313	---	132	46	292	178	85	317	131	77	60	60	123	393	116	72	239
Nov. 21----	84	263	293	146	392	303	10	261	339	285	264	192	312	176	45	29	82	223	393	43	332	239
Nov. 22----	127	272	291	89	368	271	46	273	350	261	297	99	304	91	273	442	(218)	143	317	61	---	218
Nov. 23----	49	190	292	44	180	252	37	204	171	256	385	196	307	152	340	404	342	61	249	124	---	255
Nov. 24----	64	190	252	203	202	294	34	256	60	193	434	156	269	140	309	319	315	248	291	43	---	250
Nov. 25----	27	247	256	234	317	290	22	257	45	245	305	145	180	123	38	163	135	266	354	101	---	238
Average------	63	251	277	130	282	288	28	222	155	261	307	139	282	125	179	254	(184)	160	342	101	---	223
Nov. 26----	101	75	50	244	362	155	22	245	34	247	335	53	276	116	330	423	9	284	353	44	---	206
Nov. 27----	119	258	144	203	383	221	26	244	58	252	470	14	276	59	264	390	28	212	361	101	---	205
Nov. 28----	34	245	108	165	376	268	30	293	212	167	352	148	300	120	64	64	139	207	355	93	---	200
Nov. 29----	67	285	79	206	328	277	29	226	312	264	99	158	206	174	197	210	255	234	222	191	---	64
Nov. 30----	65	247	194	194	78	---	29	224	105	272	68	147	203	130	308	295	177	255	354	209	95	252
Dec. 1----	42	173	115	195	184	271	17	237	91	68	78	104	89	160	313	387	21	253	349	204	---	221
Dec. 2----	53	49	38	171	365	198	3	223	132	224	96	108	235	120	268	354	81	233	333	193	---	199
Average------	69	190	104	197	297	232	22	242	135	213	214	105	226	125	249	303	101	240	333	148	---	192

Note.--Langley is the unit used to denote one gram calorie per square centimeter.
Values in parentheses are interpolated.

+ Less than 0.5

SOLAR RADIATION DATA

Daily totals and weekly averages of solar radiation (direct and diffuse) received on a horizontal surface, tabulated in langleys.

NOVEMBER 1962

1962	Laramie, Wyo.	Las Vegas, Nev.	Lemont, Ill.	Little Rock, Ark.	Los Angeles, Calif.	Los Angeles, Calif. (Urban)	Manhattan, Kans.	Matanuska, Alaska	Mauna Loa Obs., Hawaii	Medford, Oreg.	Miami, Fla.	Midland, Tex.	Nashville, Tenn.	Newport, R. I.	North Omaha, Nebr.	Oak Ridge, Tenn.	Oklahoma City,Okla.	Page, Ariz.	Phoenix, Ariz.	Portland, Maine
Nov. 5----	280	347	60	357	184	175	309	80	548	255	481	201	303	290	303	108	347	345	389	71
Nov. 6----	224	380	252	211	233	(255)	266	76	519	172	429	374	---	90	263	268	194	352	388	38
Nov. 7----	324	379	215	50	345	---	295	57	535	224	268	(328)	106	297	115	187	220	356	394	286
Nov. 8----	284	378	143	---	358	(341)	344	45	540	139	238	(415)	69	210	320	40	372	355	391	193
Nov. 9----	226	360	157	346	253	311	320	69	482	100	204	422	12	235	300	156	352	304	368	246
Nov. 10----	179	363	277	333	284	232	304	38	413	194	445	407	---	95	241	257	349	334	374	14
Nov. 11----	280	360	164	91	306	328	250	68	487	83	486	411	---	147	211	261	321	337	378	48
Average------	257	367	181	231	280	(274)	298	62	503	167	364	(365)	122	195	250	182	308	341	383	128
Nov. 12----	275	348	101	328	264	260	306	59	517	174	455	412	47	280	294	121	353	334	366	265
Nov. 13----	136	251	240	319	60	52	288	54	530	122	392	413	276	34	274	218	341	279	278	86
Nov. 14----	118	167	226	308	218	159	234	62	525	76	261	371	289	152	198	266	297	224	68	71
Nov. 15----	68	301	73	219	---	305	31	82	526	125	382	334	137	213	100	207	185	298	349	61
Nov. 16----	263	316	31	201	346	325	2	28	522	208	373	249	33	258	23	101	---	210	353	236
Nov. 17----	257	304	45	51	350	337	11	16	470	78	326	232	50	139	65	57	24	314	366	224
Nov. 18----	148	235	158	63	346	337	15	20	361	92	272	245	35	35	73	107	50	141	371	41
Average------	181	274	125	213	264	254	127	46	493	125	353	322	124	159	147	154	208	257	307	141
Nov. 19----	247	310	48	90	348	334	83	24	309	174	275	108	100	264	199	96	173	292	358	237
Nov. 20----	244	332	115	228	321	305	274	37	460	143	413	333	109	65	264	36	311	309	346	96
Nov. 21----	117	326	162	90	302	287	241	---	517	126	348	378	35	97	131	40	305	300	349	34
Nov. 22----	254	300	257	319	218	238	262	---	426	197	248	364	303	37	271	297	314	274	323	14
Nov. 23----	252	187	72	273	156	198	264	---	509	47	363	---	287	243	224	283	155	221	144	212
Nov. 24----	221	288	175	91	224	197	223	47	515	80	189	142	218	106	212	242	90	229	253	33
Nov. 25----	234	302	243	55	275	294	274	60	511	44	178	133	191	148	265	109	258	---	302	220
Average------	224	292	153	164	263	265	232	42	464	116	288	243	178	137	224	158	230	271	296	121
Nov. 26----	228	261	232	146	275	334	9	45	509	76	414	217	281	240	107	280	21	67	321	221
Nov. 27----	217	299	153	31	252	227	5	56	513	119	425	368	---	230	48	248	58	205	327	219
Nov. 28----	218	306	144	266	153	164	49	31	(435)	146	131	314	---	221	40	168	69	264	322	214
Nov. 29----	87	241	167	152	312	299	176	50	492	---	130	190	---	225	155	240	266	125	189	205
Nov. 30----	173	274	194	252	301	284	206	37	336	82	401	117	---	184	204	267	149	183	68	210
Dec. 1----	105	290	191	178	279	273	65	32	331	41	182	42	---	222	88	272	107	144	235	193
Dec. 2----	218	243	158	250	278	279	36	16	341	14	349	318	---	206	45	246	46	263	300	174
Average------	178	273	177	182	264	266	78	38	(422)	80	290	224	---	218	98	246	102	179	252	205

1962	Prosser, Wash.	Pullman, Wash.	Rapid City, S. Dak.	Riverside, Calif.	St. Cloud, Minn.	Salt Lake City,Utah	San Antonio, Tex.	Santa Maria, Calif.	S Ste. Marie,Mich.	Sayville, N. Y.	Seattle, Wash.	Seattle-Tacoma,Wash.	Shreveport, La	Spokane, Wash.	State College, Pa.	Sterling, Va.	Stillwater, Okla.	Swan Island, W. I.	Tampa, Fla.	Tucson, Ariz.
Nov. 5----	180	109	249	173	179	157	271	366	305	226	98	101	374	175	192	59	325	401	357	404
Nov. 6----	266	251	193	375	197	335	287	363	46	64	202	224	279	222	247	293	132	440	410	404
Nov. 7----	234	231	267	398	78	339	293	339	22	247	138	158	245	177	266	333	209	289	376	407
Nov. 8----	93	62	242	406	233	294	443	318	228	164	69	65	323	27	41	237	346	183	105	412
Nov. 9----	201	74	243	382	219	278	438	328	---	112	174	154	382	70	44	51	324	269	198	380
Nov. 10----	142	118	221	300	171	134	431	360	250	124	67	63	384	97	73	51	---	208	423	387
Nov. 11----	112	57	254	381	104	316	419	366	256	133	54	76	349	38	52	299	289	37	---	390
Average------	175	129	238	345	169	265	369	348	184	153	115	120	334	115	131	189	271	261	312	398
Nov. 12----	67	80	244	331	186	326	437	225	70	221	45	58	384	81	238	316	323	82	290	379
Nov. 13----	174	189	167	141	181	248	405	194	47	47	91	133	367	122	80	91	319	361	220	311
Nov. 14----	81	186	190	203	175	81	416	255	209	204	180	159	374	74	208	270	280	255	407	127
Nov. 15----	134	67	36	337	49	155	398	329	24	---	50	109	321	57	269	293	88	188	423	337
Nov. 16----	152	28	71	354	57	99	356	354	31	194	80	94	96	94	69	182	30	381	397	360
Nov. 17----	180	61	122	383	29	159	189	311	158	83	67	90	43	40	35	76	8	317	408	380
Nov. 18----	165	97	132	390	134	280	229	343	239	14	43	65	207	43	33	19	13	190	362	385
Average------	136	101	137	306	116	193	347	287	111	127	79	101	256	73	133	178	151	254	358	326
Nov. 19----	137	36	164	371	142	119	47	339	49	205	22	20	40	45	267	235	67	68	259	381
Nov. 20----	68	---	184	361	97	95	101	340	11	33	33	37	45	41	84	113	290	334	352	361
Nov. 21----	109	146	218	358	169	288	398	335	192	42	67	93	132	169	212	52	277	200	295	365
Nov. 22----	227	77	92	306	209	247	385	249	75	35	109	84	349	137	108	177	296	464	392	351
Nov. 23----	214	161	215	220	129	216	142	140	75	158	150	185	332	161	199	291	117	465	405	167
Nov. 24----	76	125	214	342	200	256	164	167	209	142	15	17	254	75	157	295	36	444	283	326
Nov. 25----	82	55	203	337	198	230	109	298	121	109	13	20	56	40	160	148	131	446	311	264
Average------	130	100	184	328	163	207	192	267	105	103	58	65	172	95	170	187	173	346	328	317
Nov. 26----	112	---	190	345	191	137	169	310	138	179	59	74	81	91	280	290	8	416	397	349
Nov. 27----	188	75	177	308	42	61	174	316	168	195	72	156	60	95	271	210	26	392	380	349
Nov. 28----	211	152	160	254	35	242	115	284	115	189	26	66	324	---	250	208	53	402	174	349
Nov. 29----	128	179	131	279	81	154	371	319	92	200	13	20	160	146	241	269	232	415	159	211
Nov. 30----	52	25	185	330	44	233	144	(304)	48	192	9	17	287	28	252	264	77	412	198	95
Dec. 1----	102	119	117	321	122	162	125	296	90	199	81	89	193	140	239	(280)	93	434	159	242
Dec. 2----	92	25	190	324	186	212	184	---	69	182	37	37	237	34	246	259	18	334	331	323
Average------	126	96	164	309	100	172	183	(305)	103	191	42	66	192	89	254	(254)	72	401	257	274

Note.--Langley is the unit used to denote one gram calorie per square centimeter.
Values in parentheses are interpolated.

NET RADIATION

Net radiation in langleys per day (midnight to midnight) at Huntley, Mont. during the month

NOVEMBER 1962

Date.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	Avg.
Langleys. . .	64	84	80	70	3	20	35	39	62	22	39	22	24	-25	28	32	42	20	-21	-90	-24	-60	-72	-33	16	35	3	.4	-16	-13		

The measurement is made with a Beckman and Whitley net exchange radiometer over a plot of sod. The value represents the total incoming minus the total outgoing radiation of all wave lengths.

These data are of an experimental nature and are published as received from the Huntley Exp. Station. The instrument with which they were measured has not been checked by the Weather Bureau.

TOTAL OZONE DATA

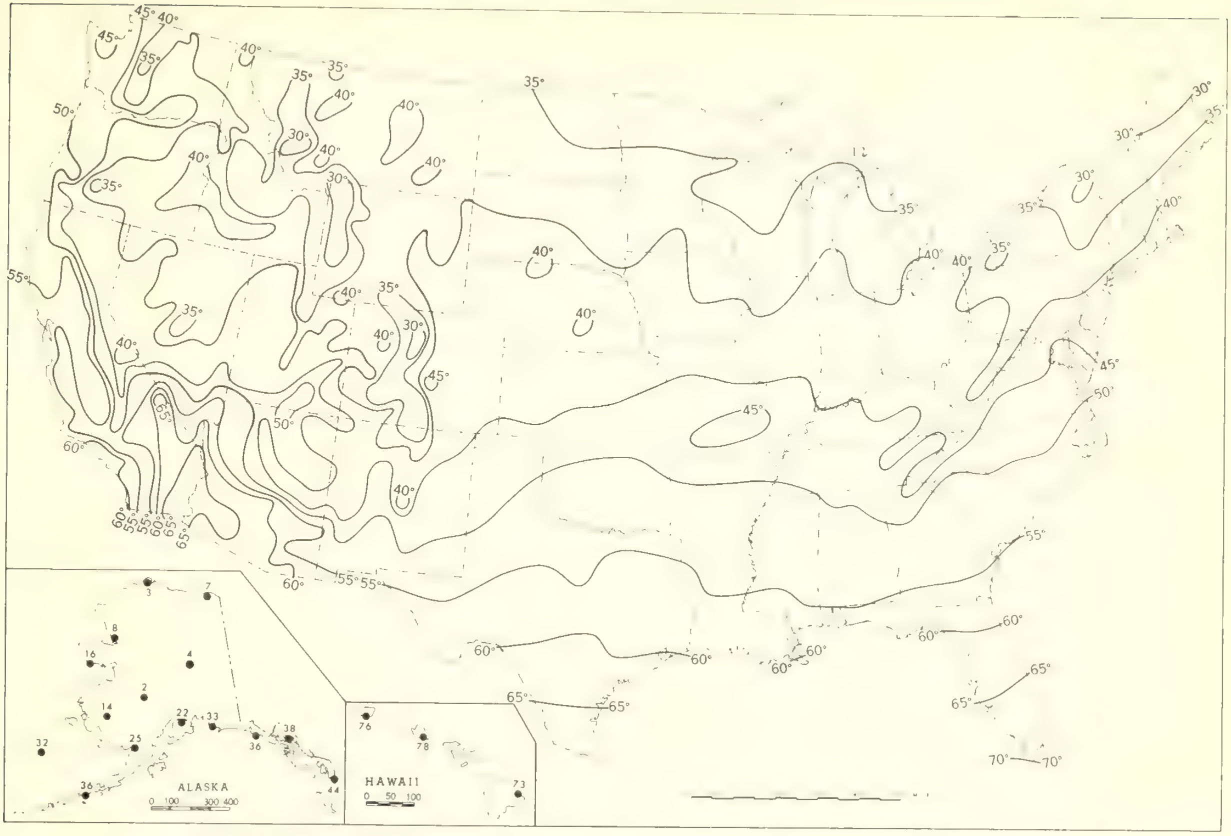
The total amount of ozone is expressed in 10^{-3} cm. at STP. These data are provisional values applicable to local noon, and are obtained from measurements with a Dobson ozone spectrophotometer using the sun or zenith sky as a light source (see explanation below).

Station	Day of month																														
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31
Bismarck, N. Dak.	---	---	--	-	262	---	287	289	---	---	261	244	---	---	---	---	310	---	275	291	224	216	320	343	326	---	313	---	---	---	
Caribou, Maine	--	297	---	---	---	---	274	290	272	---	---	288	---	---	---	---	---	230	271	293	---	---	300	341	360	---	311	299	289	314	
Green Bay Wis.	---	---	---	- -	---	249	- - -	---	---	255	---	---	250	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	
Mauna Loa, Hawaii	267	262	264	266	268	264	274	276	265	269	---	---	260	252	253	250	248	---	---	272	264	260	260	267	260	253	252	254	250	---	
Midland, Texas	288	291	285	288	---	270	299	297	279	280	262	256	257	241	---	---	---	---	---	283	245	242	---	---	---	255	265	227	---	---	
Nashville, Tenn.	295	---	325	---	300	329	---	---	---	285	266	---	251	259	---	---	---	---	---	---	---	250	251	255	292	297	305	---	308	281	
Sterling, Va.	285	---	---	---	---	297	300	---	---	---	---	---	---	271	265	--	---	- -	---	--	---	---	---	---	---	---	---	---	312	293	

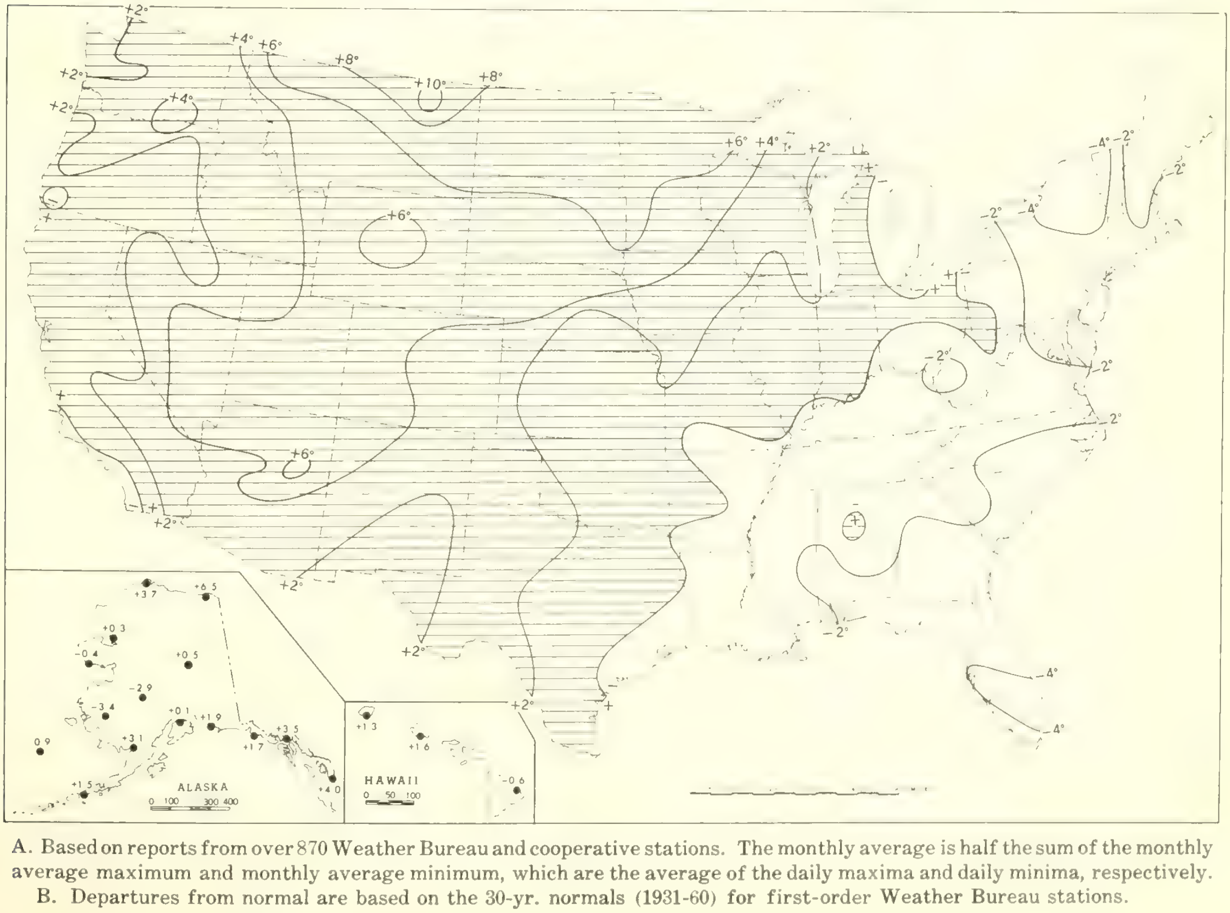
The spectrophotometer measures the total amount of ozone in the atmosphere, i.e., the amount contained in a vertical column of air extending from the ground to the top of the atmosphere in the vicinity of the station. The amount of ozone in this column is expressed in terms of thickness of a layer it would occupy at standard temperature and pressure.

The standard method of measurement is that on direct sun using A(3055Å and 3254Å) and D(3176Å and 3398Å) wavelength pairs. Observations made on the clear zenith sky are slightly less accurate, and are marked with a dagger (†). Observations made on zenith cloud are least reliable, and are marked with an asterisk (*). A detailed description of the spectrophotometer and observational procedures may be found in the "Observers' Handbook For the Ozone Spectrophotometer", Annals of the International Geophysical Year, Volume V, Pergaman Press, 1957.

Chart I. A. Average Temperature (°F.) at Surface, November 1962.



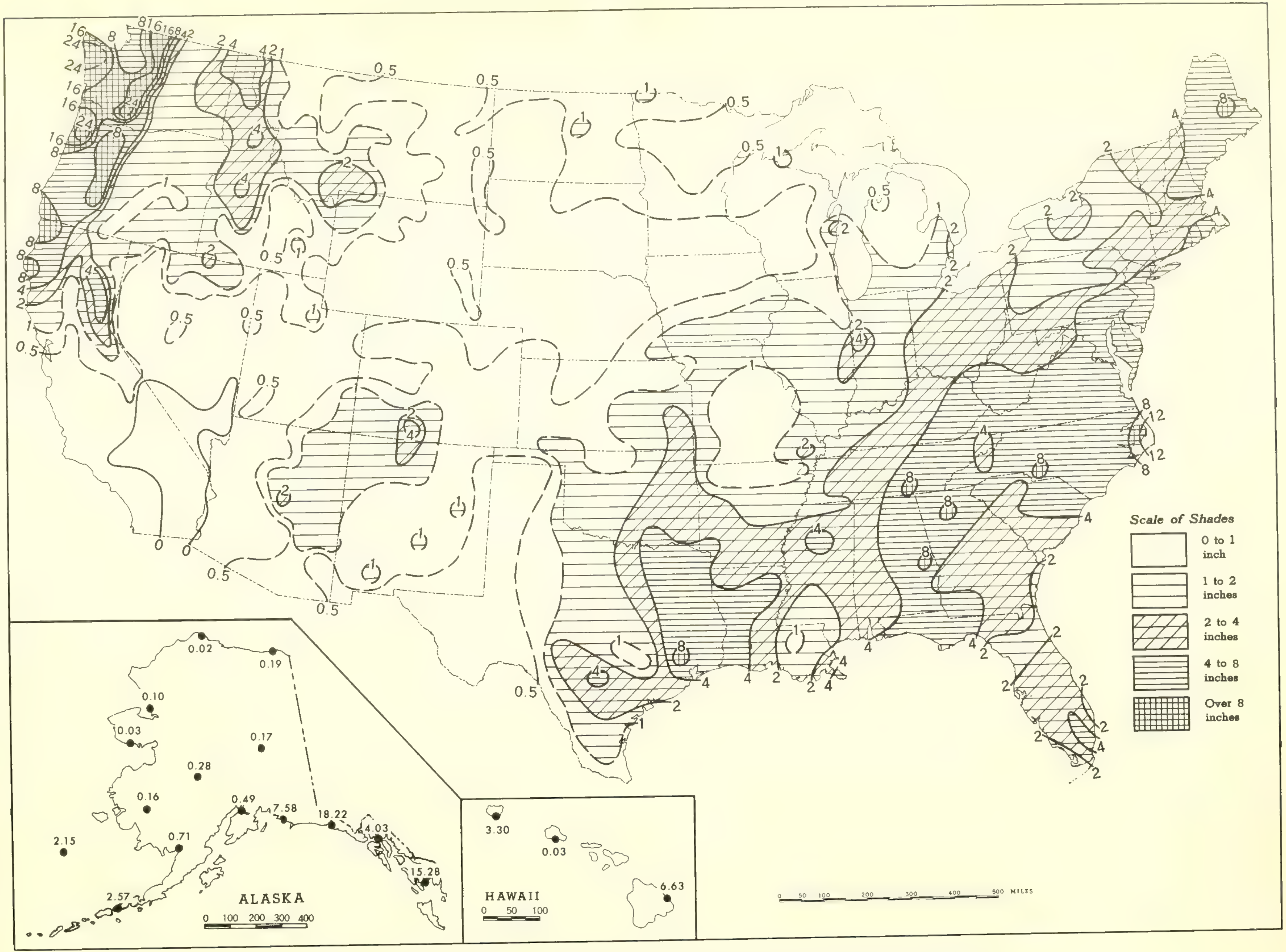
B. Departure of Average Temperature from Normal (°F.), November 1962.



A. Based on reports from over 870 Weather Bureau and cooperative stations. The monthly average is half the sum of the monthly average maximum and monthly average minimum, which are the average of the daily maxima and daily minima, respectively.

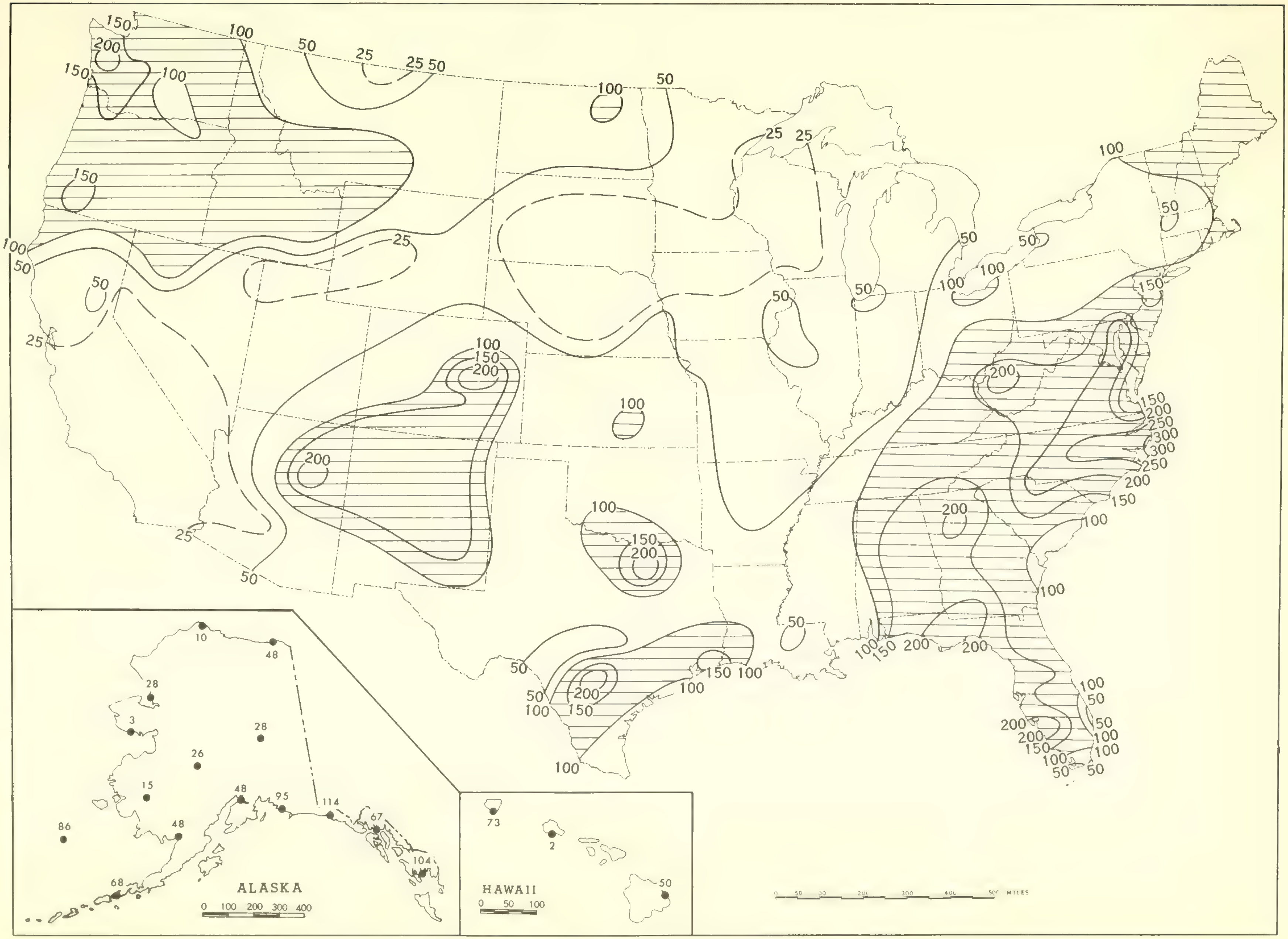
B. Departures from normal are based on the 30-yr. normals (1931-60) for first-order Weather Bureau stations.

Chart II. Total Precipitation (Inches), November 1962.



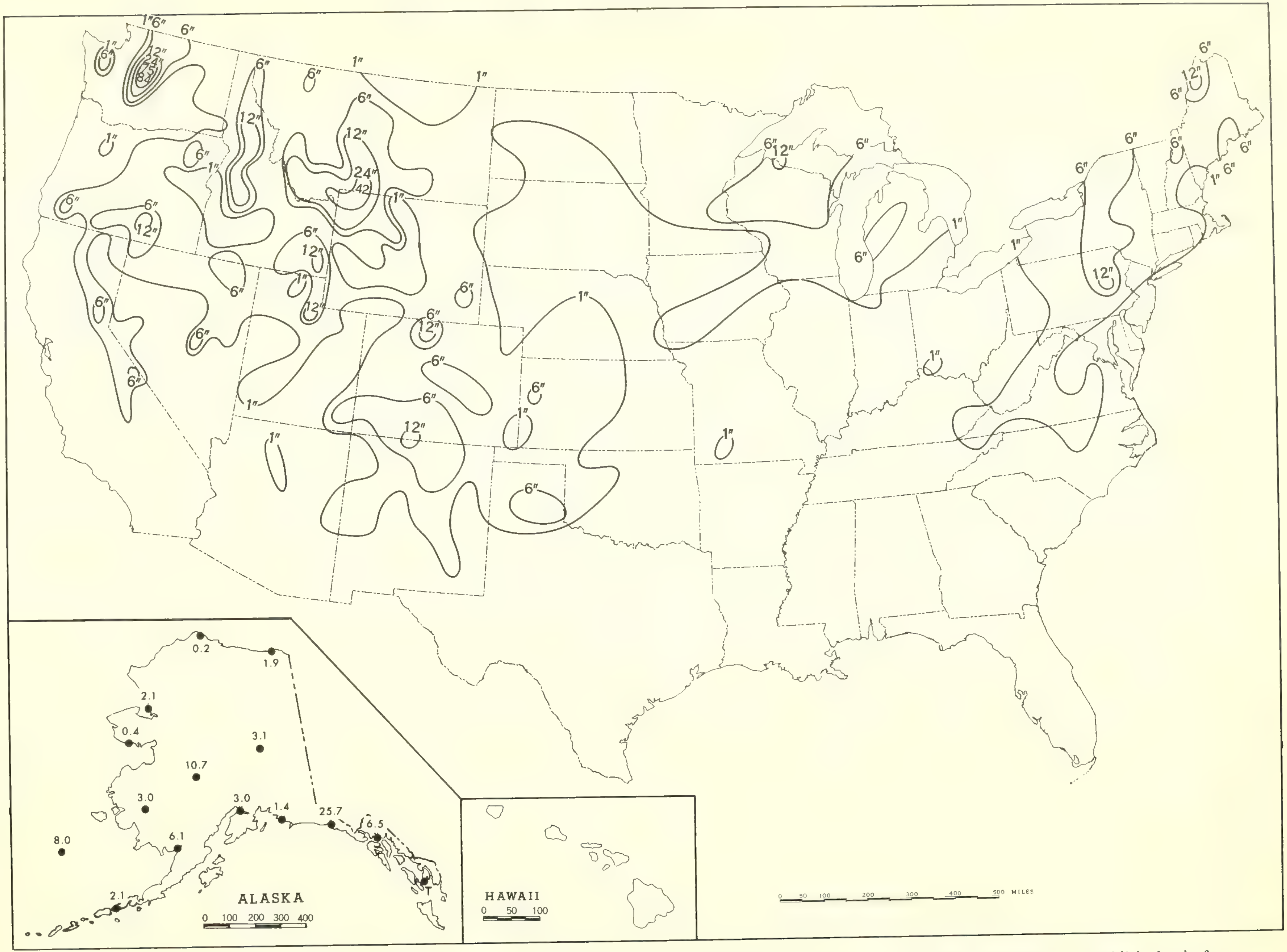
Based on daily precipitation records at about 870 Weather Bureau and cooperative stations.

Chart III. Percentage of Normal Precipitation, November 1962.



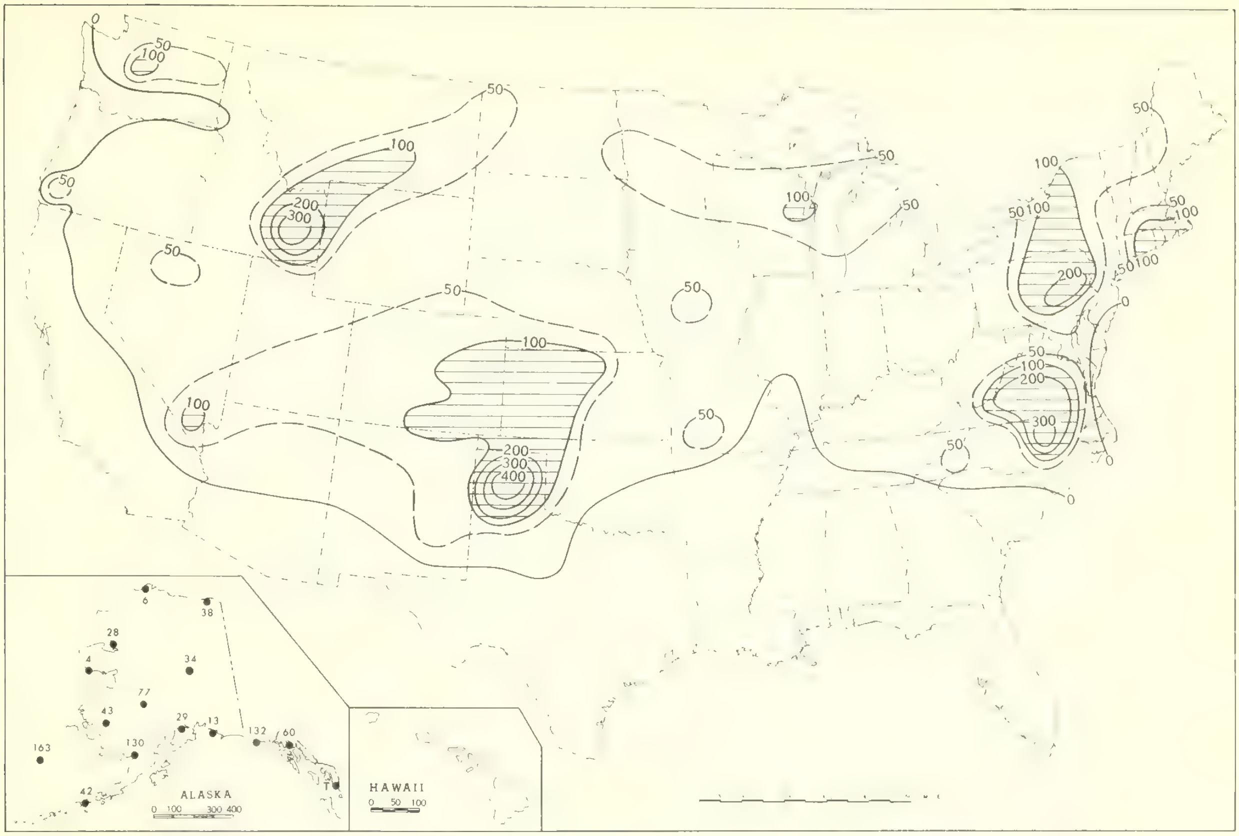
Normal monthly precipitation amounts are computed from 30-yr. normals (1931-60) for first-order Weather Bureau stations.

Chart IV. Total Snowfall (Inches), November 1962.

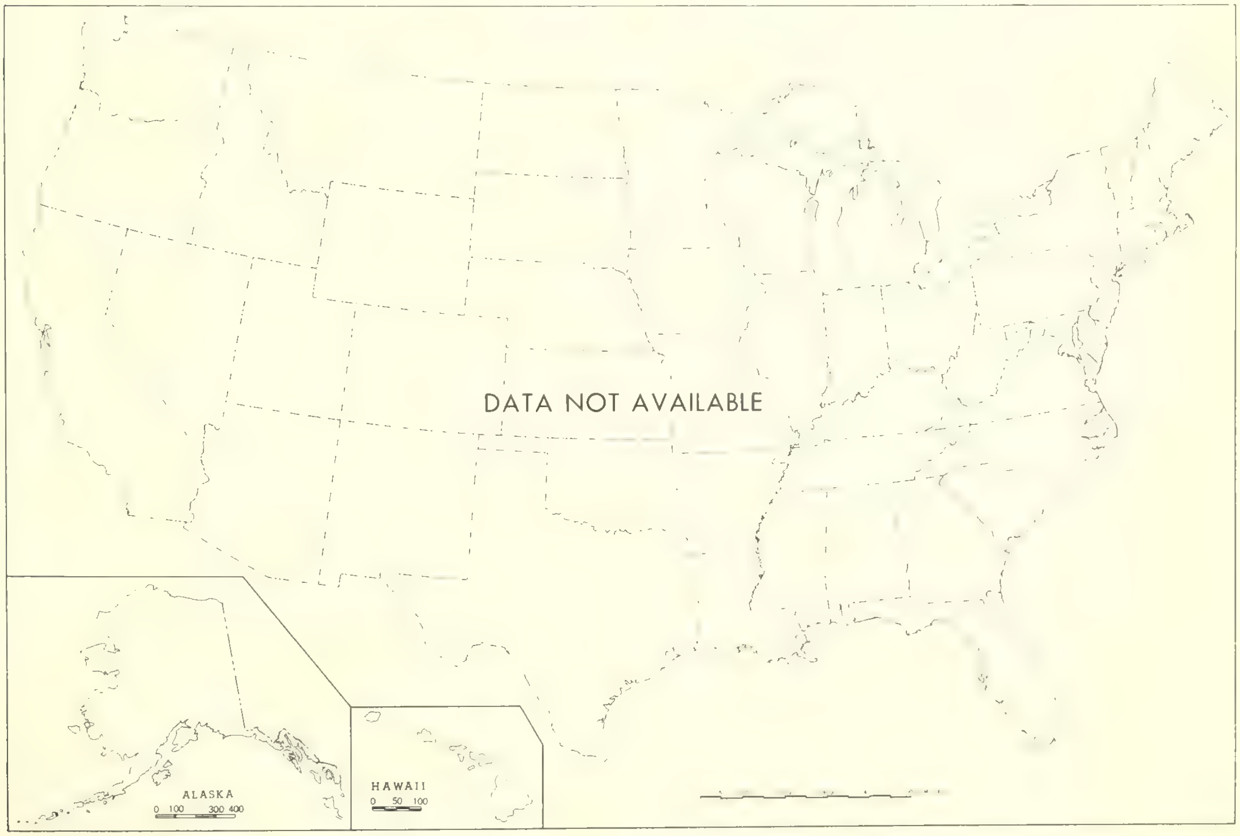


This is the total of unmelted snowfall recorded during the month at Weather Bureau and cooperative stations. This chart and Chart V are published only for the months of November through April although of course there is some snow at higher elevations, particularly in the far West, earlier and later in the year.

Chart V. A. Percentage of Mean Monthly Snowfall, November 1962.

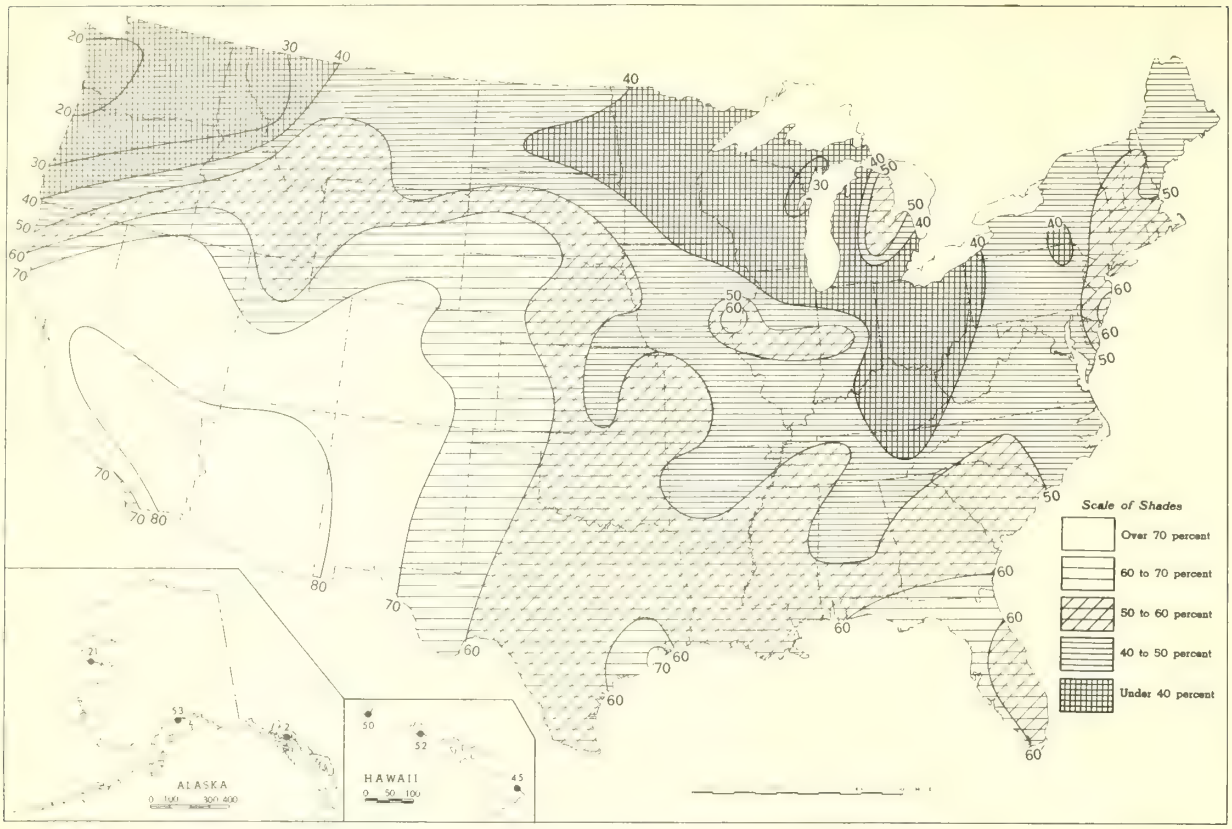


B. Depth of Snow on Ground (Inches), 7:00 a. m. E. S. T., December 3, 1962.

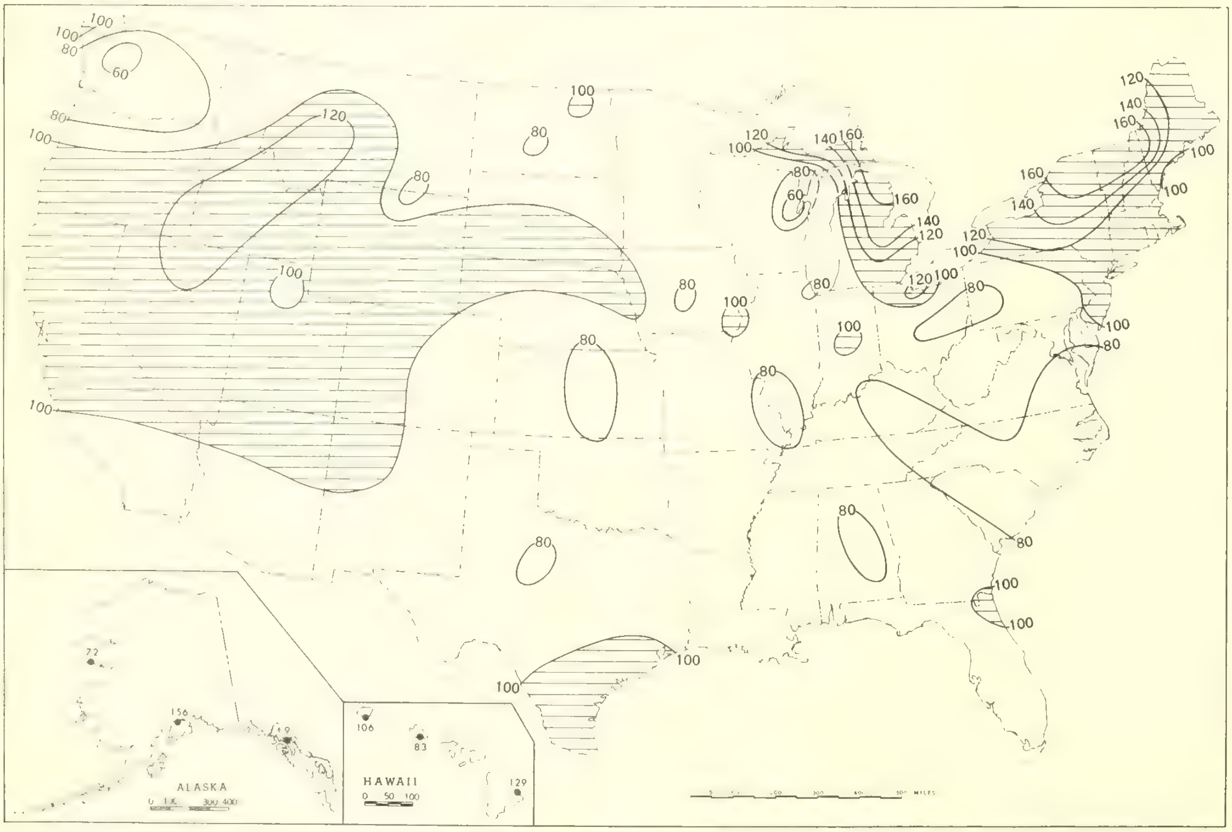


A. Amount of mean monthly snowfall is computed for Weather Bureau stations having at least 10 years of record.
B. Shows depth currently on ground at 7:00 a.m. E.S.T., of the Monday nearest the end of the month.
It is based on reports from Weather Bureau and cooperative stations.

Chart VI. A. Percentage of Possible Sunshine, November 1962.

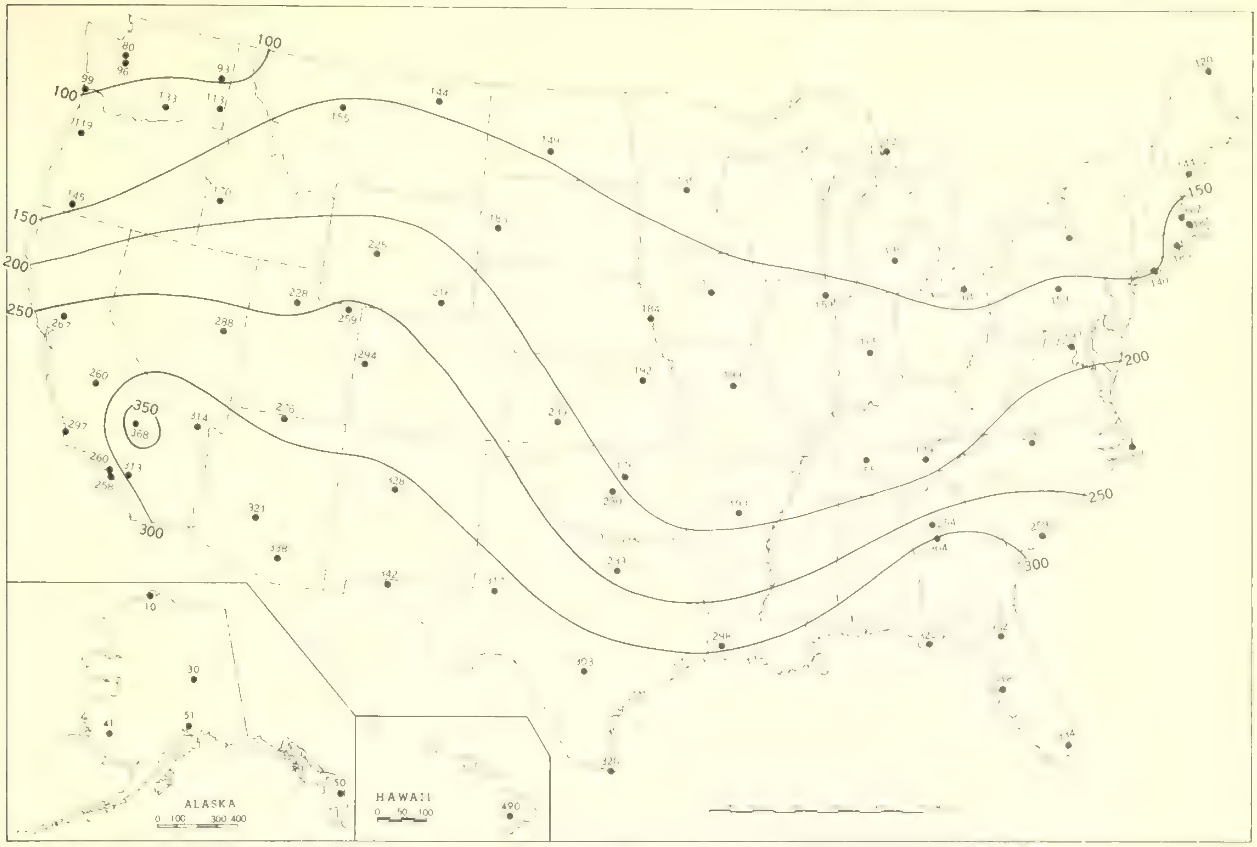


B. Percentage of Mean Monthly Sunshine, November 1962.

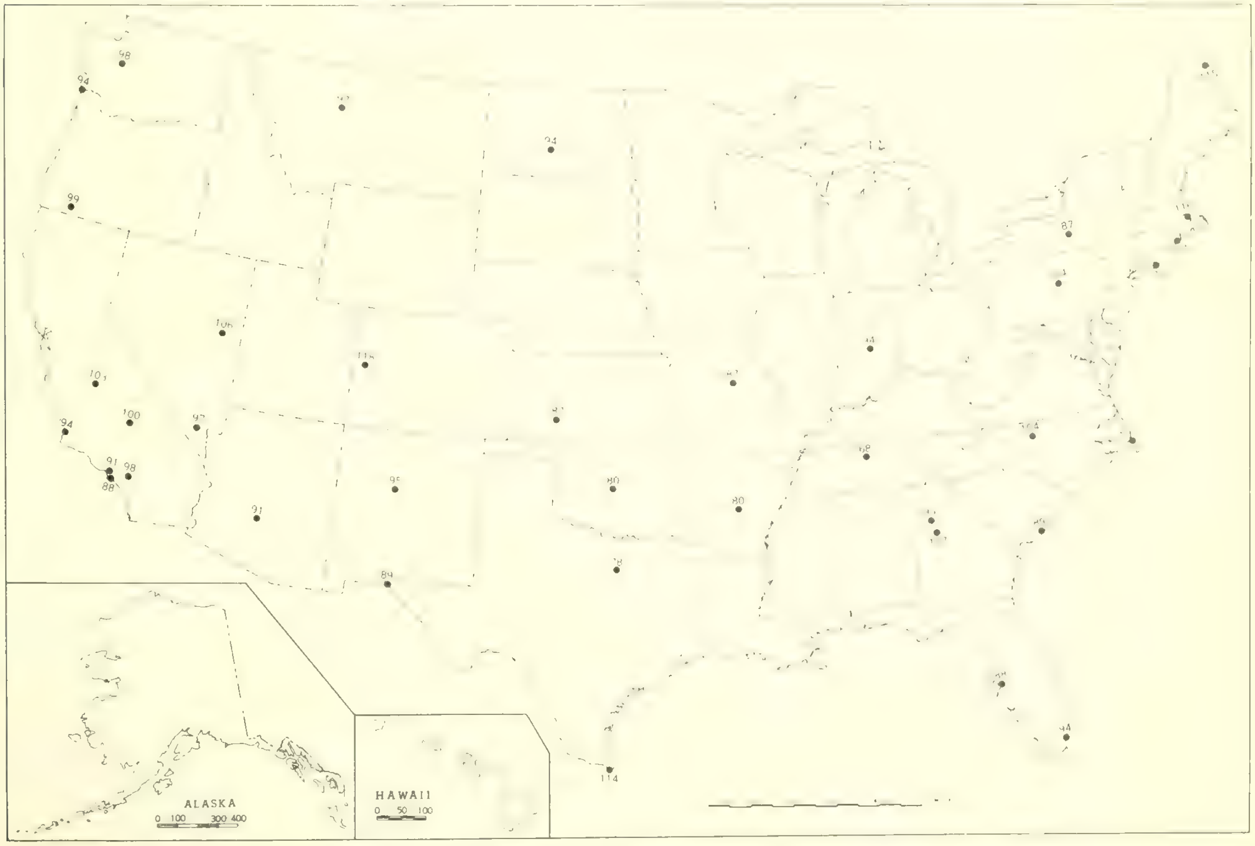


A. Computed from total number of hours of observed sunshine in relation to total number of possible hours of sunshine during month. B. Means are computed for stations having at least 10 years of record.

Chart VII. A. Average Daily Values of Solar Radiation, Langleys, November 1962.



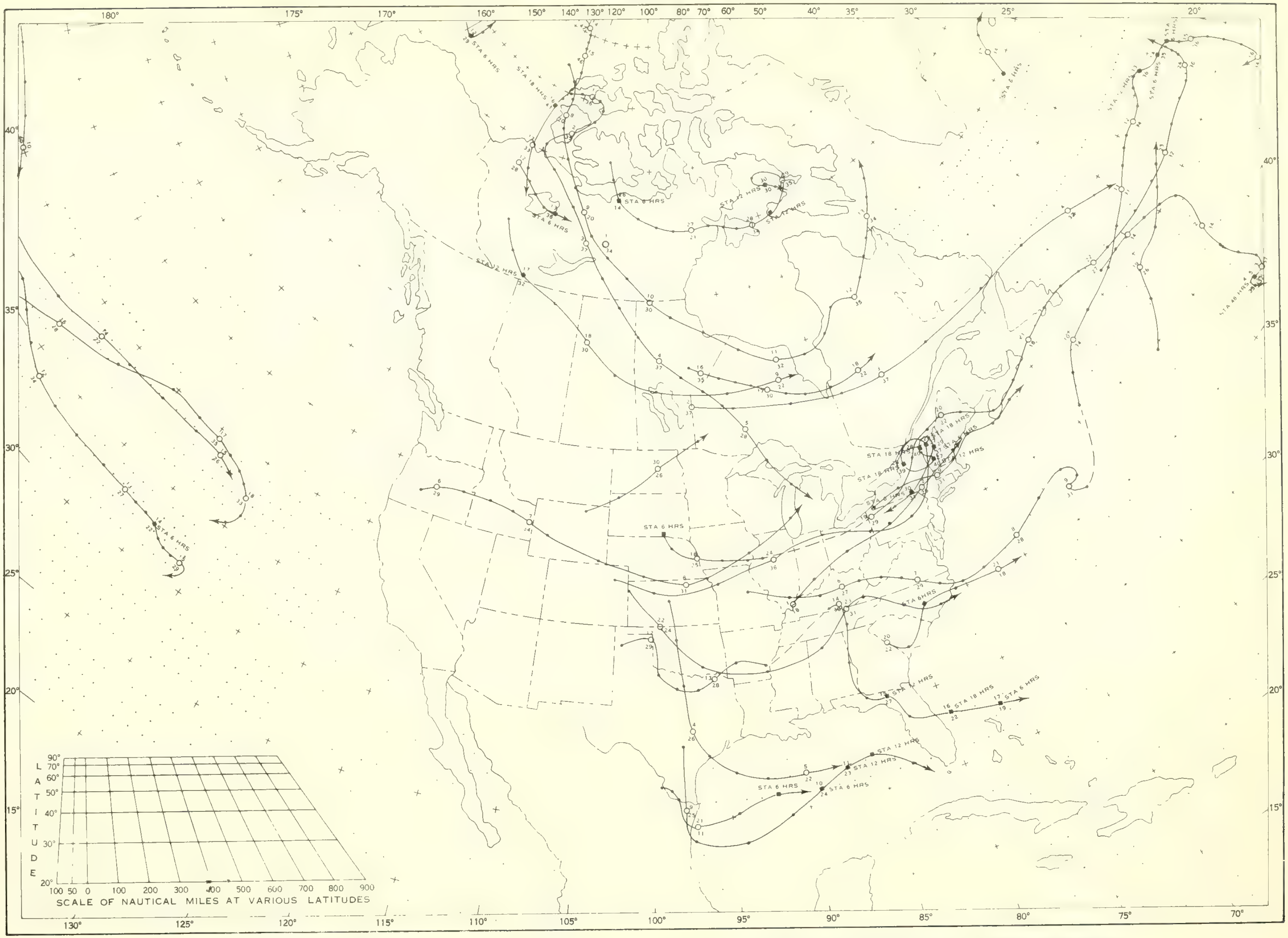
B. Percentage of Mean Daily Solar Radiation, November 1962.



A. Mean daily solar radiation, direct + diffuse, received on a horizontal surface in langleys (1 langley = 1 gm. cal. cm. $^{-2}$) and recorded in International Pyrheliometer Scale of 1956.

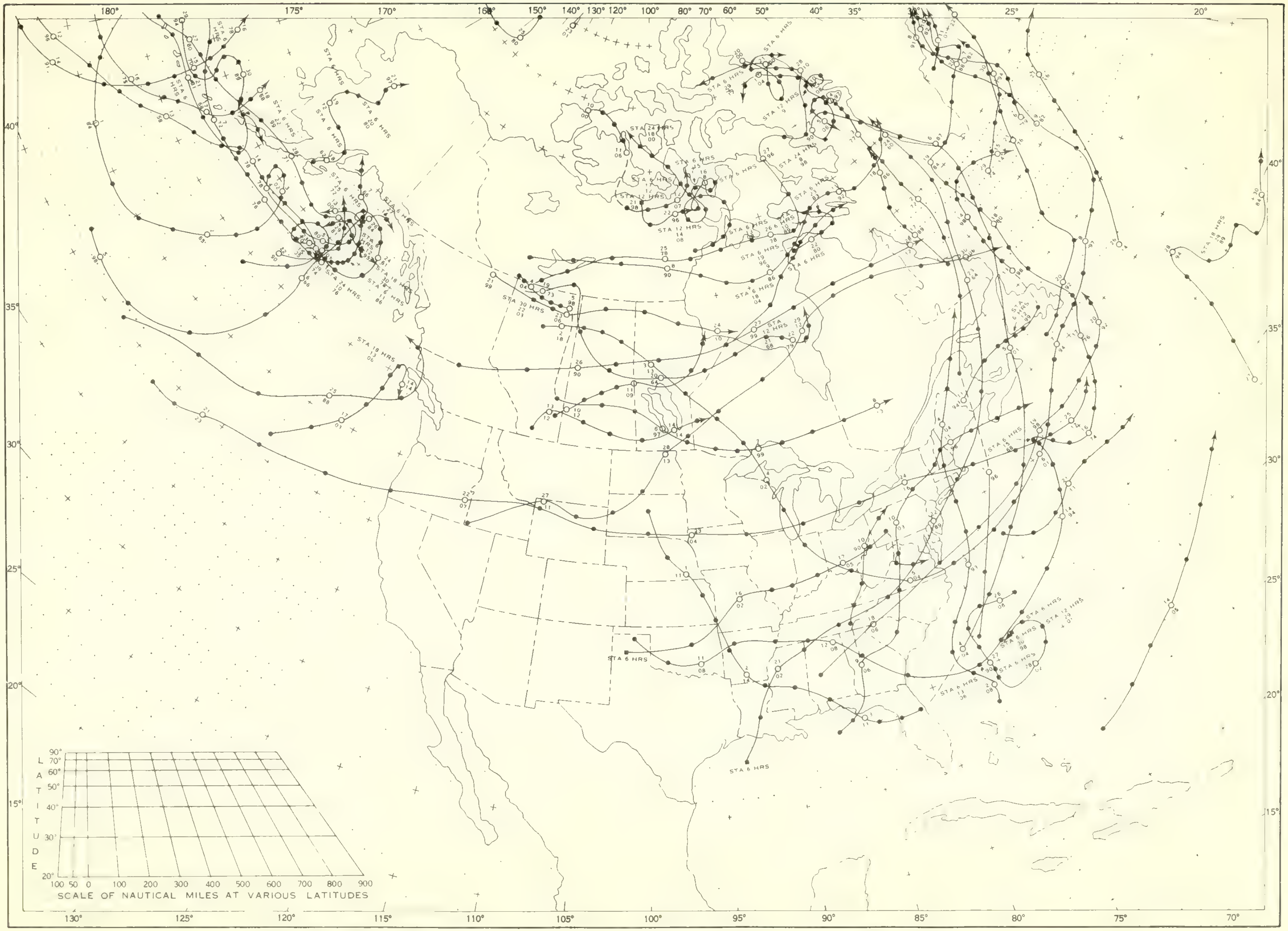
B. Percentage of the mean based on the period 1953-57, and corrected to the International Pyrheliometer Scale of 1956.

Chart VIII. Tracks of Centers of Anticyclones at Sea Level, November 1962.



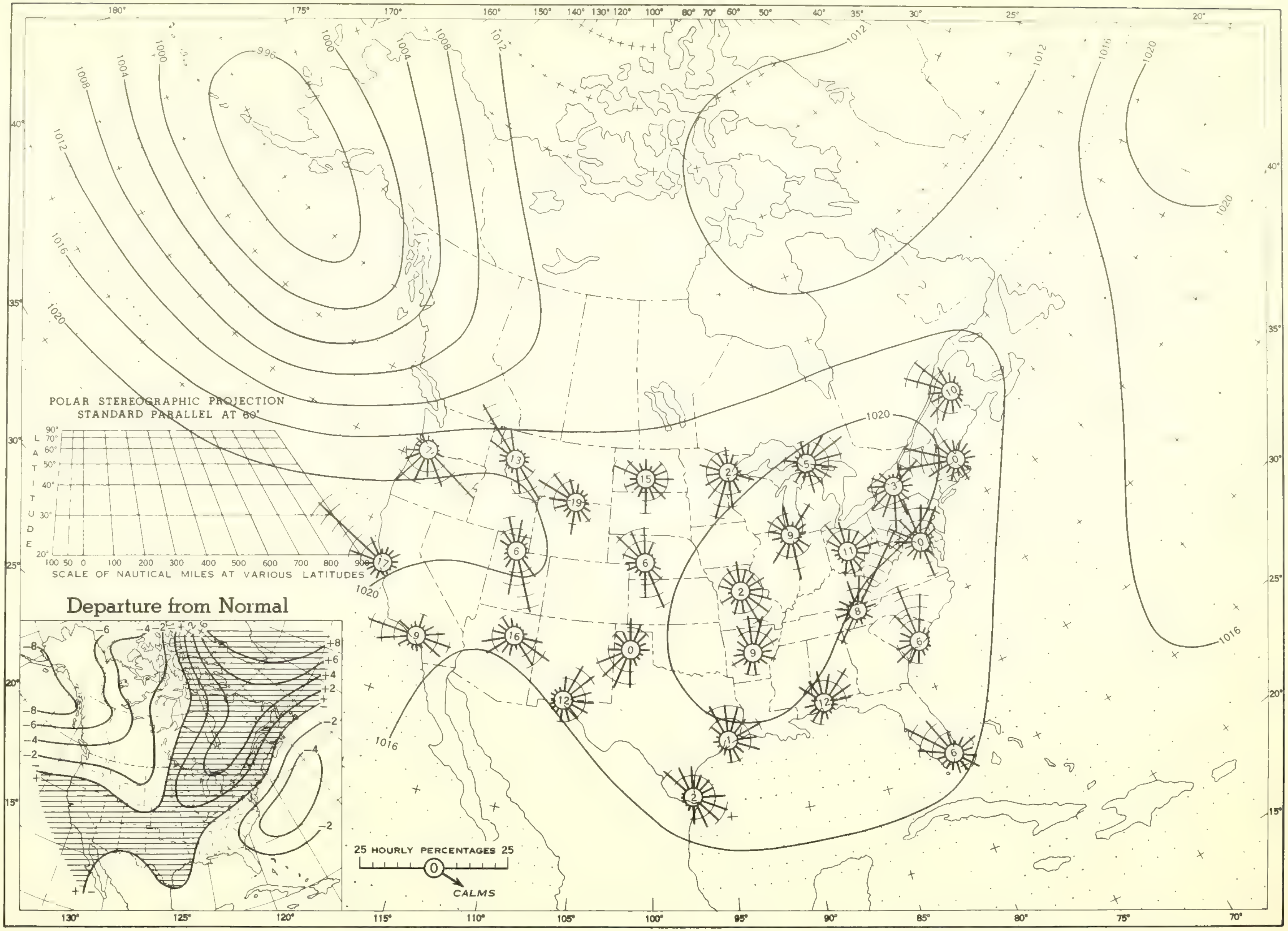
Circle indicates position of center at 7:00 a. m. E. S. T. Figure above circle indicates date, figure below, pressure to nearest millibar. Dots indicate intervening 6-hourly positions. Squares indicate position of stationary center for period shown. Dashed line in track indicates reformation at new position. Only those centers which could be identified for 24 hours or more are included.

Chart IX. Tracks of Centers of Cyclones at Sea Level, November 1962.



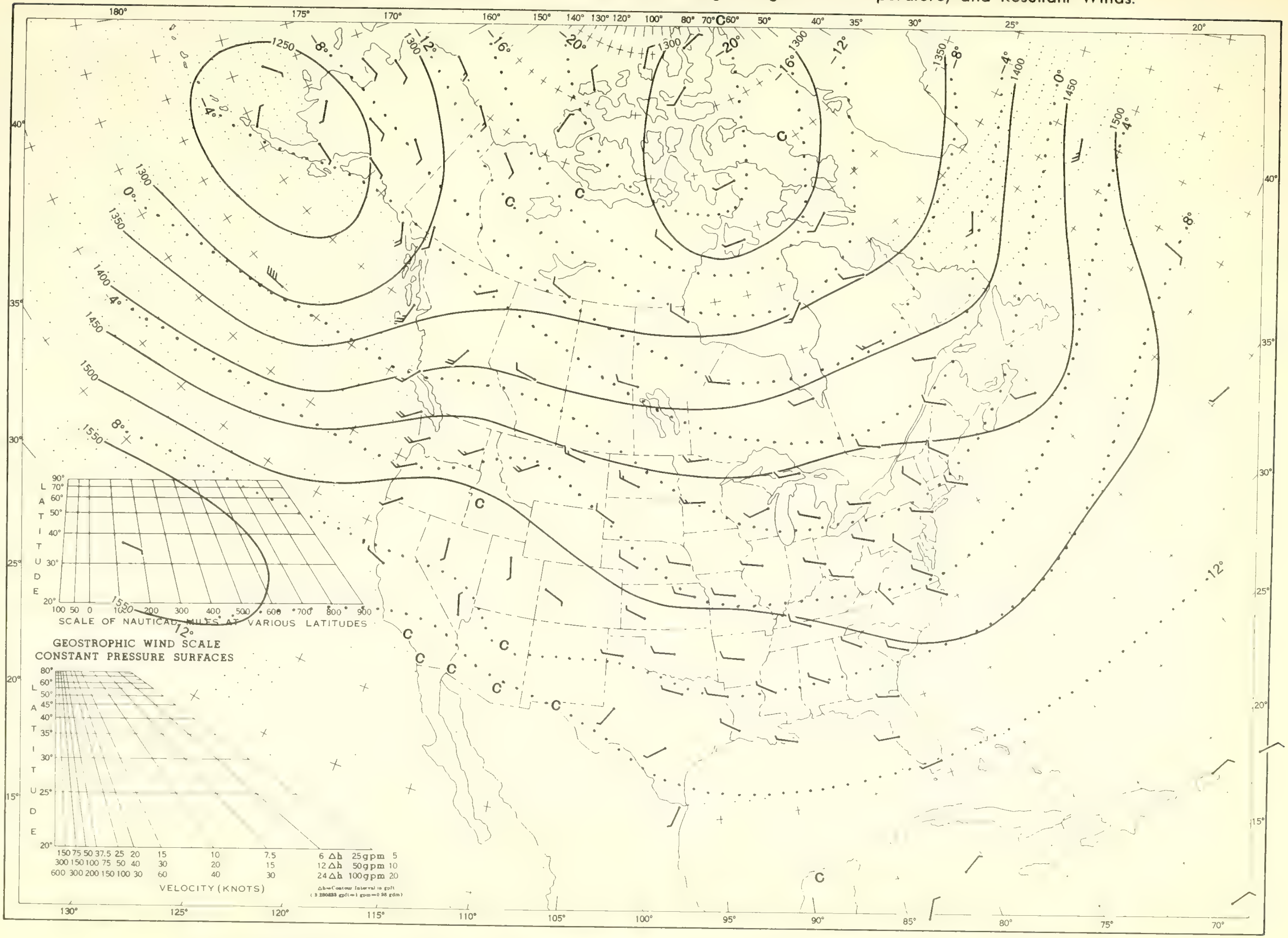
Circle indicates position of center at 7:00 a. m. E. S. T. See Chart VIII for explanation of symbols.

Chart X. Average Sea Level Pressure (mb.) and Surface Windroses, November 1962. Inset: Departure of Average Pressure (mb.) from Normal, November 1962.



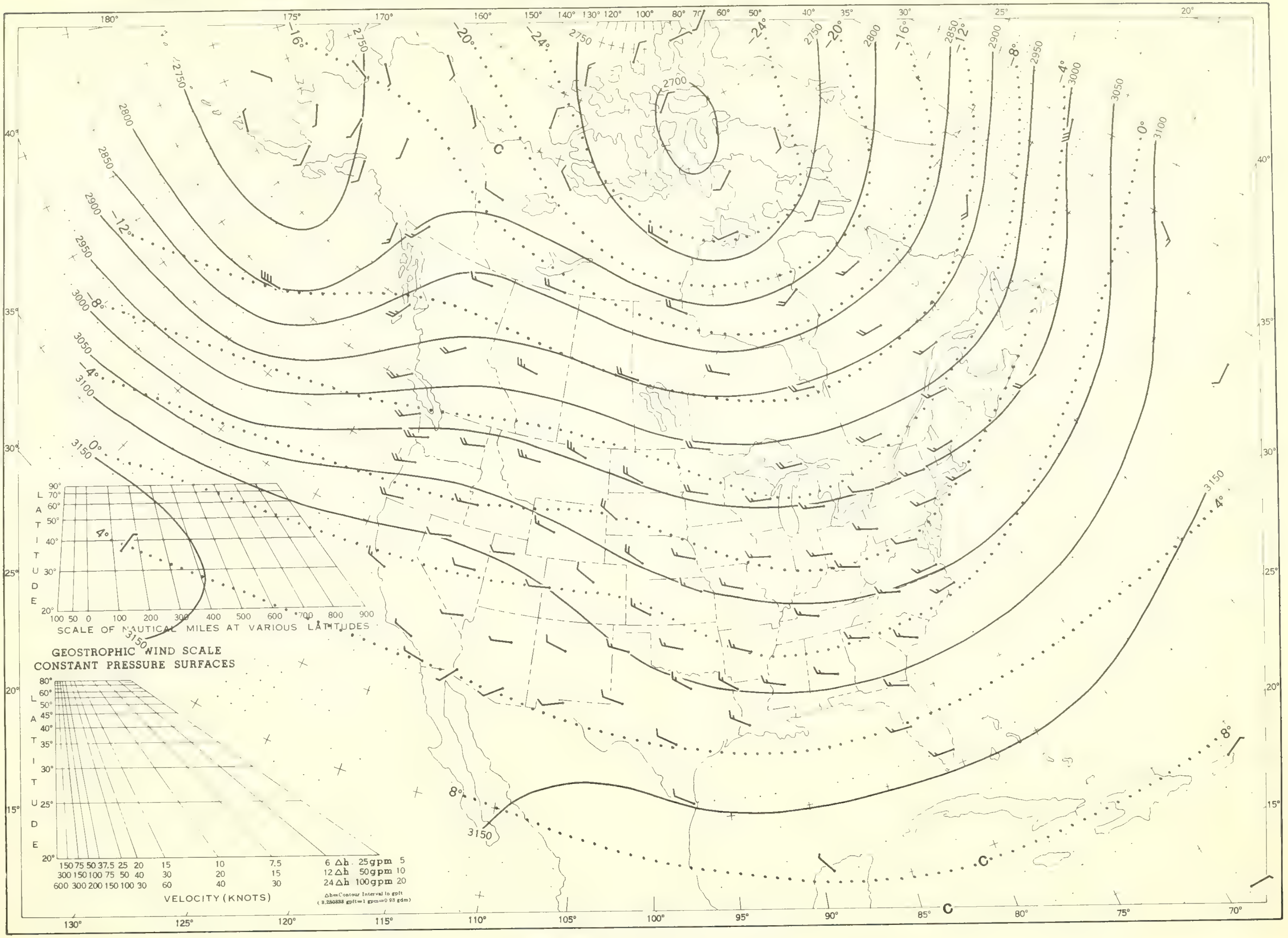
Average sea level pressures are obtained from the averages of the 7:00 a. m. and 7:00 p. m. E. S. T. readings. Windroses show percentage of time wind blew from 16 compass points or was calm during the month. Pressure normals are computed for stations having at least 10 years of record and for 10° intersections in a diamond grid based on readings from the Historical Weather Maps (1899-1939) for the 20 years of most complete data coverage prior to 1940.

Chart XI. 850-mb. Surface, 1200 GMT, November 1962. Average Height and Temperature, and Resultant Winds.



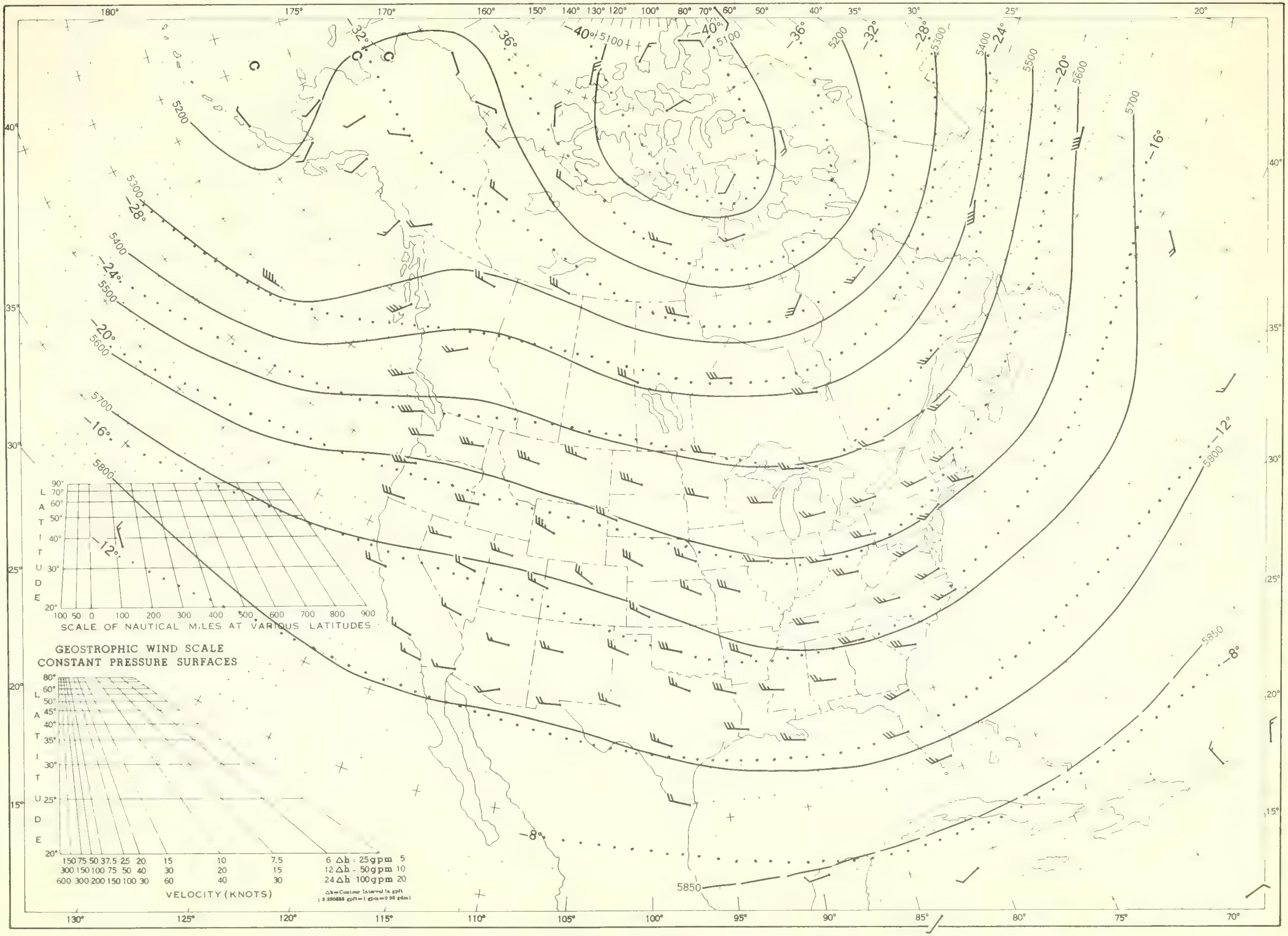
Height in geopotential meters (1 g.p.m. = 0.98 dynamic meters). Temperature in °C. Wind speed in knots; flag represents 50 knots, full feather 10 knots, and half feather 5 knots. All wind data are based on rawin observations.

Chart XII. 700-mb. Surface, 1200 GMT, November 1962. Average Height and Temperature, and Resultant Winds.



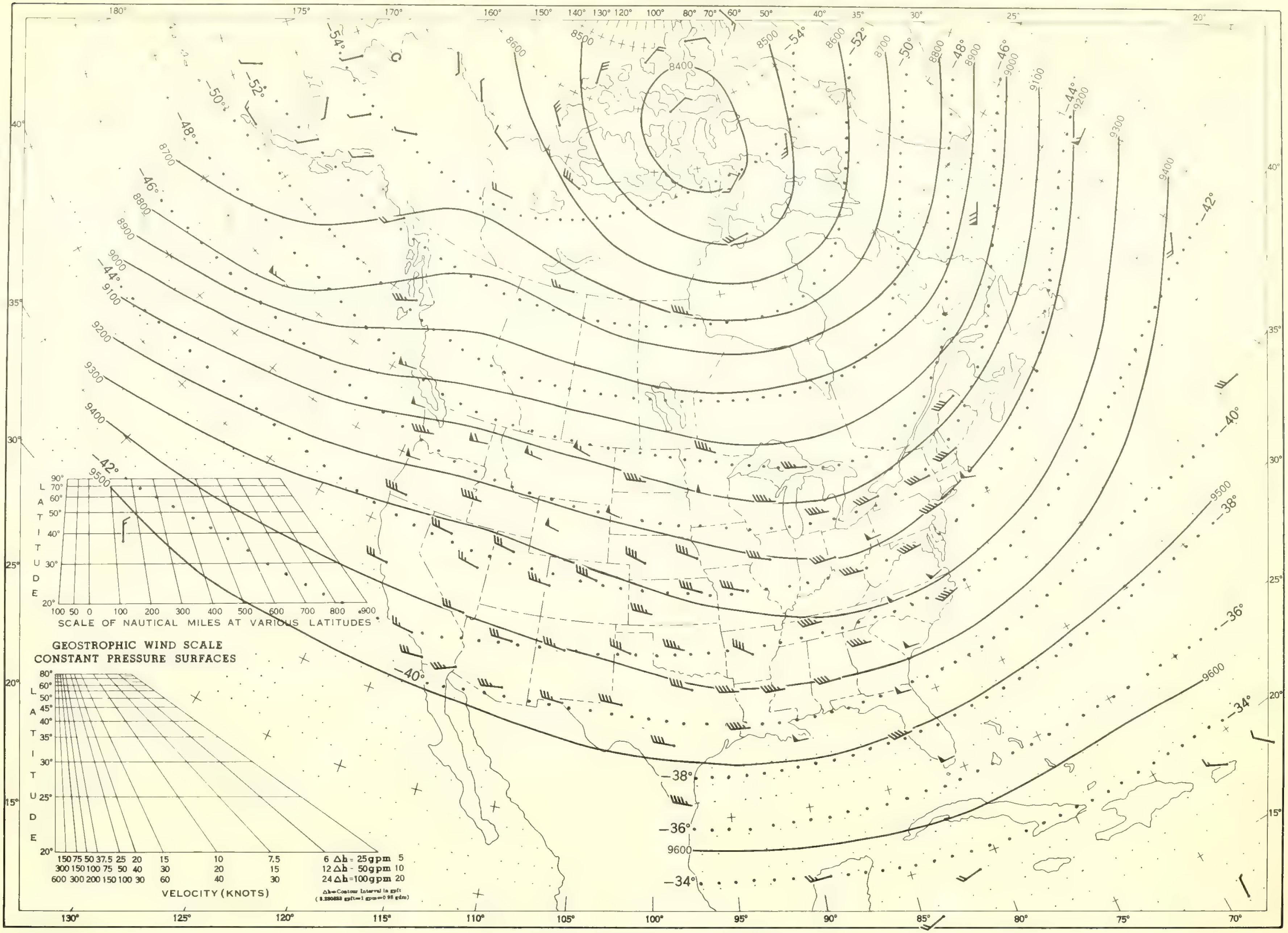
See Chart XI for explanation of map.

Chart XIII. 500-mb. Surface, 1200 GMT, November 1962. Average Height and Temperature, and Resultant Winds.



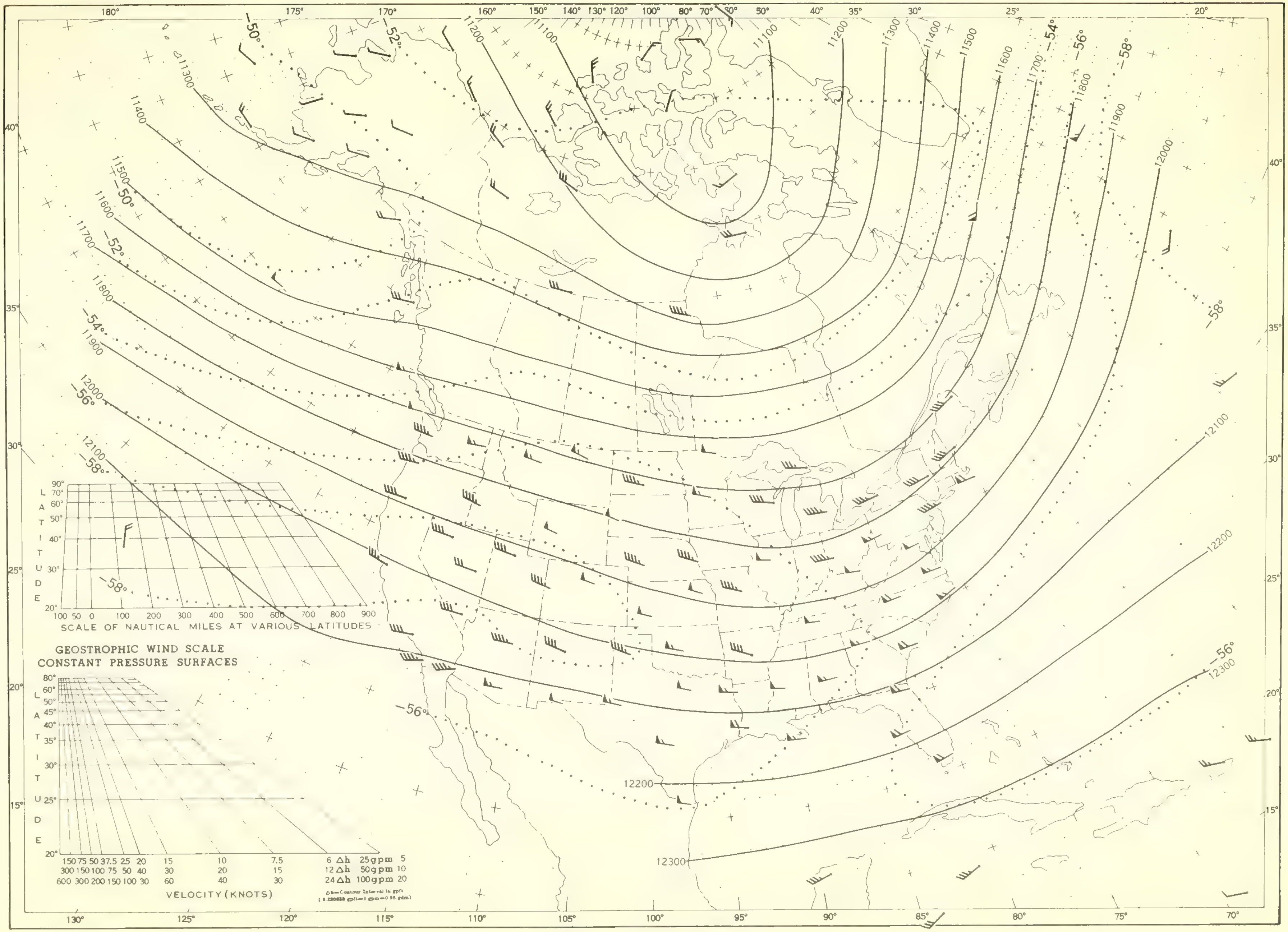
See Chart XI for explanation of map.

Chart XIV. 300-mb. Surface, 1200 GMT, November 1962. Average Height and Temperature, and Resultant Winds.



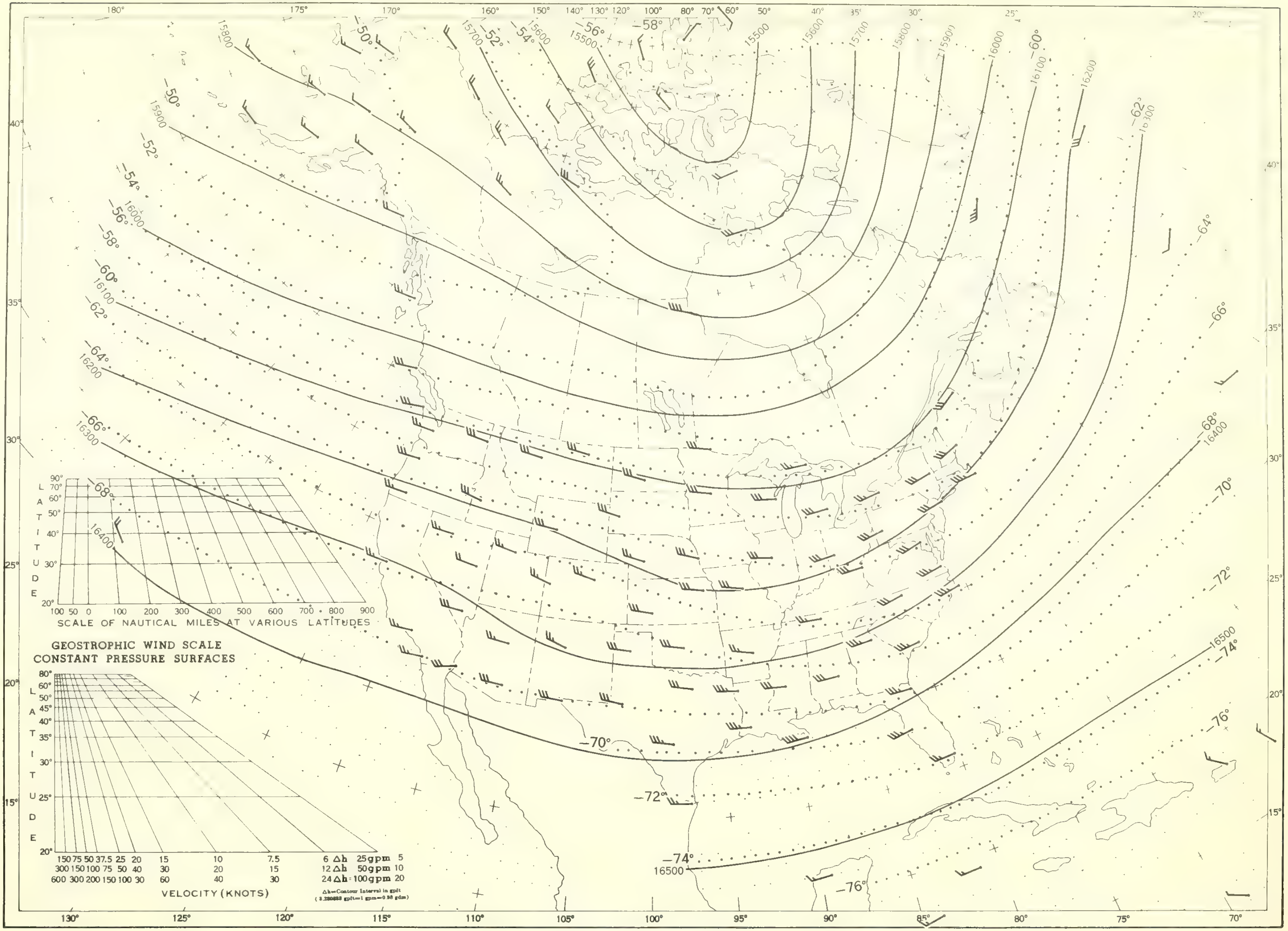
See Chart XI for explanation of map.

Chart XV. 200-mb. Surface, 1200 GMT, November 1962. Average Height and Temperature, and Resultant Winds.



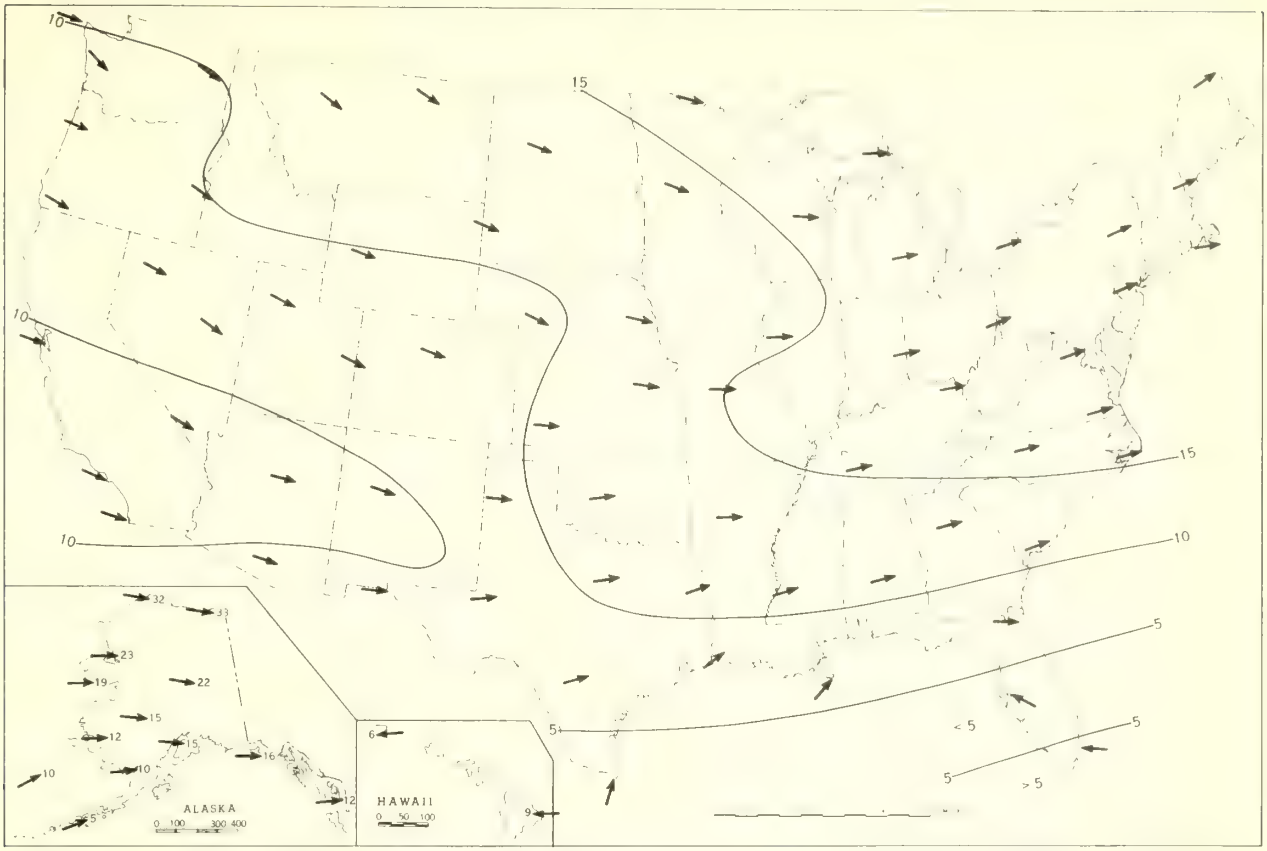
See Chart XI for explanation of map.

Chart XVI. 100-mb. Surface, 1200 GMT, November 1962. Average Height and Temperature, and Resultant Winds.

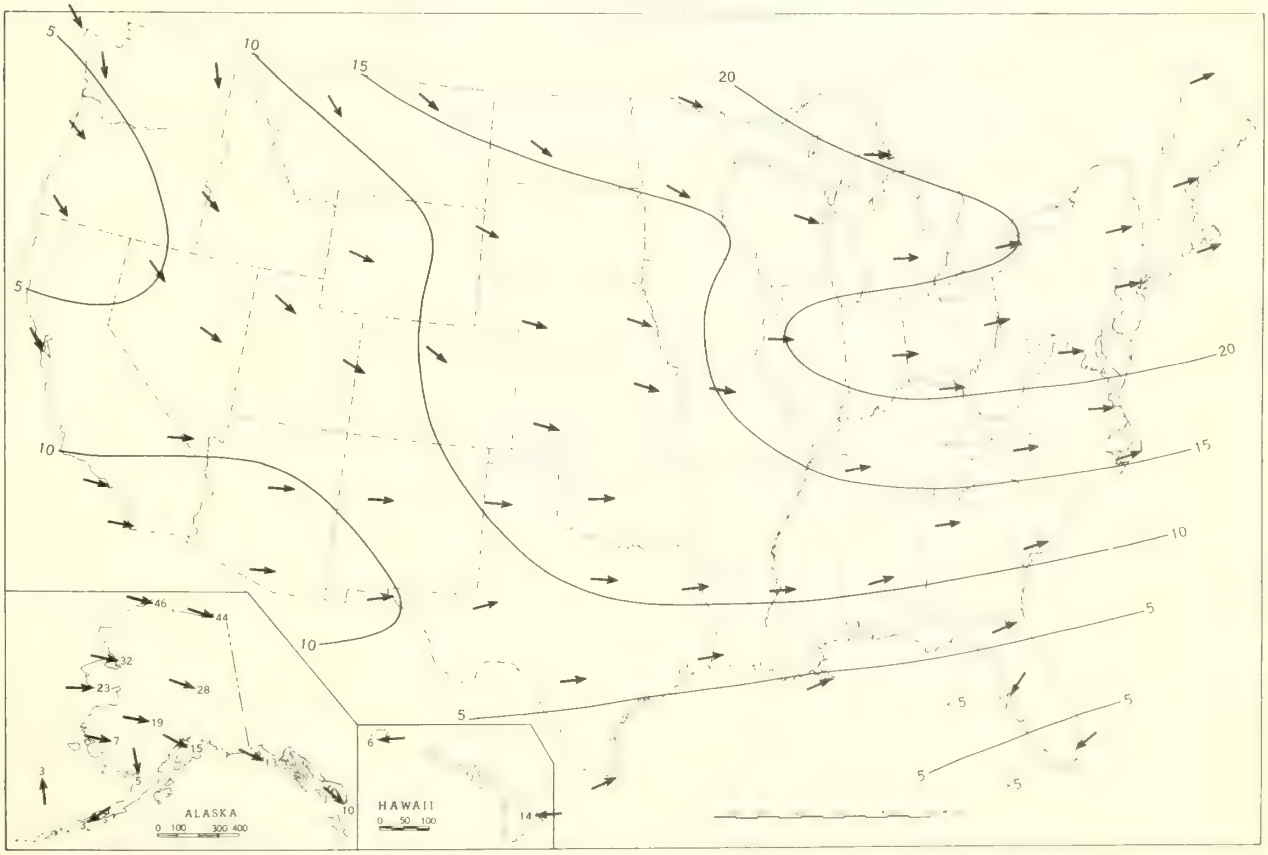


See Chart XI for explanation of map.

Chart XVII. A. 50-mb. Surface, 1200 GMT, November 1962. Resultant Winds.



B. 30-mb. Surface, 1200 GMT, November 1962. Resultant Winds.



Wind speed (isotachs) in knots. Arrows show resultant wind direction. All wind data are based on rawin observations.

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CLIMATOLOGICAL DATA

NATIONAL SUMMARY

CLEMSON COLLEGE

DECEMBER 1962
Volume 13 No. 12

ASHEVILLE: 1963

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NOTE: Delayed data and corrections will be carried in the June and December issues of this publication.

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CLIMATOLOGICAL DATA

NATIONAL SUMMARY

Volume 13 No. 12 DECEMBER 1962

GENERAL SUMMARY OF WEATHER CONDITIONS

Wide temperature fluctuations during previous months of 1962 continued through December. After a few days of mild to record-breaking high temperatures for the time of year, one of the worst cold waves on record moved across the eastern half of the Nation, causing heavy damage in southern areas. Precipitation was below normal except for a few relatively small areas. Snowfall was heavy in the Northeast, but below normal in the Far West. In New England one of the worst blizzards in many years moved into the area on the 30th.

TEMPERATURE. --In general, temperatures for the month averaged below normal in the eastern half of the Nation and above in the West. The coldest area in the East, relative to normal, extended from the middle Mississippi Valley to the Atlantic coast, with largest departures ranging from 6° to 8° in the Ohio Valley.

Temperatures in the western half of the Nation generally averaged only slightly above normal, with greatest departures of 4° to 6° mainly limited to Montana. In that State, Kalispell had its fourth warmest December on record, and some stations reported their highest temperatures for one or more dates. Medford, Oreg., recorded 72° on the 14th, a new record for December.

Highlighting the month's weather was the severe cold wave which was responsible for extremely cold weather east of the Rocky Mountains and record-breaking low temperatures for December at numerous stations in the southeastern quarter of the Nation. The cold wave moved into the northern Great Plains late on the 10th and covered the entire East late on the 12th. Numerous stations recorded their lowest December temperatures of record on the 13th. A list of some of these stations and their low temperatures are as follows:

Montgomery, Ala.	5°
Daytona Beach, Fla.	21°
Jacksonville, Fla.	12°
Tampa, Fla.	18°
Rome, Ga.	0°
Savannah, Ga.	9°
Thomasville, Ga.	8°
Baton Rogue, La.	11°
Lake Charles, La.	18°
Meridian, Miss.	4°
Vicksburg, Miss.	9°
Asheville, N. C.	-6°
Chattanooga, Tenn.	2°
Nashville, Tenn.	-7°
Apalachicola, Fla.	13°

In addition December lows were equaled in Nantucket, Mass., -3°, Miami, Fla., 35°, and Atlanta, Ga., 1°.

The low at Tampa, Fla., was the lowest ever recorded there in any month. Damage, while widespread in the South, was heaviest in Florida where the crop losses were expected to total many millions. In Louisiana over half of the stations from Houma in the south to Ruston in the north equaled or broke their alltime December minima on the 13th when Tallulah, Clinton, and Covington reported lows of 7°. In Mississippi, University Station at Oxford reported a low of 0°.

Unseasonably cold weather continued east of the Rockies the remainder of the month except for a brief period of moderation during the third week. The month ended with unseasonably cold weather over the entire Nation. The 30th and 31st were bitterly cold in New England where a combination of subzero temperatures and high winds with gusts exceeding hurricane force created an extreme wind chill.

PRECIPITATION. --Precipitation was less than half normal in large portions of the Mississippi Valley, Utah, Nevada, and western Arizona. At Phoenix, Ariz., rain beginning on December 17 ended the driest period for March 1 through December 16 on record. The Los Angeles, California, Airport recorded only 0.10 inch for the last 6 months of 1962.

Most precipitation in the East fell during the first and last weeks of the month. Frontal systems produced heavy precipitation in the northeast early in the month and in the south and southeast during the last week. Heavy rainfall near midmonth caused minor flooding in southeastern Nebraska.

SNOWFALL. --Much below normal snowfall in the Far West during December left the mountain snowpack extremely low at the end of 1962. In many areas near record low amounts were reported.

Snowfall was above normal in much of the Northeast. The first heavy storm occurred there on the 5th to 7th with heavy amounts reported in Michigan, Indiana, Ohio, West Virginia, Pennsylvania, and New York, where falls exceeding a foot were measured at higher elevations and in the lee of the Great Lakes. Accumulations up to 3 or 4 feet were reported south of Buffalo, N. Y.

Snowfall was frequent in the northeastern quarter of the Country the latter part of the month. During a storm over the Northeast on the 30th and 31st, from 30 to 35 inches of snow fell in central and eastern Maine, with smaller amounts in the remainder of the Northeast.

In Washington, D. C., 16.2 inches was the most snow for December since 1888. Other record amounts for December included 41.9 inches at South Bend, Ind.; 54.2 inches at Muskegon, Mich.; and 30.3 inches at Cleveland, Ohio.

DESTRUCTIVE STORMS. --Very few severe local storms occurred. Most weather-caused damage resulted from winter-type storms and the severe cold wave on the 12th and 13th.

The most severe winter storm occurred in the Northeast on the 30th and 31st. Severe blizzard conditions occurred in Maine, and parts of New Hampshire, Vermont, and New York. Sustained winds exceeded 40 m.p.h. and temperatures dropped to -10° to -20°. Albany, N. Y., reported wind gusts up to 60 m.p.h. at 2:30 a.m. of the 31st and -10° temperature. Many communities were isolated with much personal hardship resulting from power, communication, and transportation failures. A daily newspaper in Bangor, Maine, missed publication for the first time in 73 years.

CONDENSED CLIMATOLOGICAL SUMMARY

DECEMBER 1962

Section	Temperature						Precipitation			
	Monthly extremes						Monthly extremes			
	Station	Highest	Date	Station	Lowest	Date	Station	Greatest	Station	Least
		°F			°F			In.		In.
Alabama	Rockford	78	3	Valley Head	-8	13	Evergreen	6.50	Hayneville	1.38
Alaska	3 Stations	62	12	Tok	-57	8	Little Port Walter	33.22	Barrow WBAP	.06
Arizona	Casa Grande Nat. Mon.	85	8	Fort Valley	-21	25	Painted Canyon	4.52	Quartzsite	T
Arkansas	5 Stations	75	18+	Mount Magazine	-5	12	2 Stations	2.83	Osceola 2NNW	D .37
California	2 Stations	89	9+	White Mountain 1	-12	26	Honeydew 2WSW	12.44	37 Stations	.00
Colorado	Holyoke	74	16	2 Stations	-45	26	Wolf Creek Pass 4W	2.88	8 Stations	T
Connecticut	Waterbury Radio WBRY	68	1	Cream Hill	-20	31	Norfolk 2SW	5.11	Hartford Brainard Field	1.79
Delaware	2 Stations	66	1	2 Stations	-2	31+	Lewes 1SW	4.15	Wilmington Ncastle WB	2.50
Florida	Loxahatchee	88	27	do	5	13	Milton Exp. Station	5.02	2 Stations	.10
Georgia	Camilla	79	21	Blairsville Exp. Station	-9	13	Atkinson 1W	5.37	Waynesboro	.72
Hawaii	Upolu Point USCG	89	27	Haleakala Summit, Maui	22	22	Kahana 883, Oahu	17.73	2 Stations	.00
Idaho	2 Stations	63	16+	Dixie	-27	24	Burke 2ENE	5.12	do	.03
Illinois	Cobden 2S	76	1	Freeport	-21	26	Mount Carmel No. 2	D 3.50	Walnut	.07
Indiana	3 Stations	70	2+	La Grange Swg. Pl.	-15	12	Mount Vernon	3.19	Monticello	.15
Iowa	do	68	2	Saratoga 2E	-33	26	Tracy 1NE	.97	Humbolt No. 2	.02
Kansas	Saint Francis	78	16	Beloit 1ESE	-15	26	Arkansas City	1.66	2 Stations	T
Kentucky	Williamsburg 2	75	1	McKee	-18	13	Elkhorn City	4.49	Brent Dam 36	1.27
Louisiana	Donaldsonville	82	21	6 Stations	7	14+	Elizabeth 1NW	11.71	Haynesville	1.20
Maine	2 Stations	62	1	Haynesville	-27	25	Orono	7.72	Upper Dam	2.32
Maryland	Benson Police Barracks	70	3	Oakland 1SE	-14	12	Pocomoke City 1S	4.86	Cumberland Police Brks.	1.47
Massachusetts	Fitchburg 2S	70	1	South Egremont	-18	31	Ipswich	6.45	3 Stations	2.48
Michigan	Traverse City FAA AP	64	3	Vanderbilt Trout Station	-25	31	Ludington 4SE	6.40	Dearborn	.32
Minnesota	Stewart 4SSW	64	3	Bigfork	-36	26	Orr 19W	1.36	3 Stations	T
Mississippi	Liberty 3E	79	21	Fulton 3W	-2	13	Black Hawk	5.85	Tunica 2	.91
Missouri	Waynesville 2W	74	17	2 Stations	-23	26	Fisk	3.69	Mansfield	.28
Montana	3 Stations	69	15+	West Yellowstone	-43	25	Troy 18N	4.86	2 Stations	.00
Nebraska	Greeley	77	16	Wakefield	-21	26	Ogallala 3W	1.17	Valentine WB AP	.10
Nevada	Overton	78	10	Charleston	-21	25	Mt. Rose Highway Sta.	1.77	13 Stations	.00
New Hampshire	Durham	66	1	First Conn Lake	-24	22+	Northwood	5.75	Whitefield	1.27
New Jersey	Flemington 1NE	74	1	Sussex	-10	30	Belleplain St. Forest	5.07	Manville	D .81
New Mexico	Gowdy Ranch	80	19	Gavilan	-30	26	Pinos Altos	4.09	2 Stations	T
New York	Scarsdale	69	1	Ogdensburg 3NE	-34	31	Pulaski	7.97	Whitney Point	.71
North Carolina	Southport	75	3	Banner Elk	-18	13	Cape Hatteras WB	8.63	Enka	1.02
North Dakota	4 Stations	61	17+	Willow City	-27	27	Walhalla	.93	2 Stations	T
Ohio	Milford	72	1	Tom Jenkins Dam	-23	13	Chardon	5.99	St. Marys 3W	.27
Oklahoma	Waurika	78	17	Blackwell 1W	-8	26	Ada	3.33	Regnier	.04
Oregon	Powers	74	15	Fremont	-3	24+	Valsetz	9.30	Rome 2NW	.21
Pennsylvania	2 Stations	69	3+	Clermont 4NW	-22	27	Blairsville 6ENE	4.52	Graterford 1E	.81
Puerto Rico	do	95	6	2 Stations	55	30+	Cambalache Exp. Forest	13.56	Melania Dam	.00
Rhode Island	do	65	1	Greenville	-9	31	Newport	4.21	Greenville	2.51
South Carolina	Camden 2WSW	84	16	2 Stations	-5	13	Clemson College	5.67	Dillon 4SW	.93
South Dakota	3 Stations	67	16	Gannvalley 1ESE	-25	12	Lead	1.25	Sisseton	.00
Tennessee	Shelbyville 3	76	2	Mountain City 2	-24	13	Sevierville 1SE	5.15	Ripley	.77
Texas	Kingsville	89	4	Stratford	-4	26	Four Notch Guard Sta.	8.65	2 Stations	.00
Utah	Black Rock	73	4	3 Stations	-25	26+	Alta	1.59	5 Stations	.00
Vermont	Bennington 3NNW	61	4	Enosburg Falls	-25	21	Wardsboro	D 5.19	Enosburg Falls	.84
Virginia	St. Paul	72	2	Burkes Garden	-20	13	Trout Dale	7.45	Williamsville 5N	1.06
Washington	La Grande	65	14	3 Stations	1	26+	Aberdeen 20NNE	20.34	White Swan	.30
West Virginia	Flat Top	72	2	Mannington 1N	-22	13	Canaan Valley	6.34	Petersburg	1.58
Wisconsin	3 Stations	65	2+	Prentice 5W	-34	26	Gurney	2.24	Spring Valley	.03
Wyoming	Lance Creek 3WNW	76	15	Foxpark	-36	25	Burgess Junction	.99	4 Stations	.00

+ And also on an earlier date or dates.

NOTE: Dates in the above Condensed Climatological Summary apply to the period 24 hours prior to time of observation. In some cases the actual occurrence is on the calendar date preceding that shown. (See individual Climatological Data for times of observations).

D Water equivalent of snowfall wholly or partly estimated, using a ratio of 1 inch water equivalent to every 10 inches of snowfall.

CLIMATOLOGICAL DATA

ENGLISH UNITS

State and Station	Elevation (ground)	Pressure		Temperature											Average relative humidity	Precipitation							Wind					No. of days (sunrise to sunset)			Sky cover, tenths (sunrise to sunset)	Possible sunshine
												No. of days							No. of days		Snow, Sleet				Fastest mile							
		Station ∅	Sea level	Average maximum	Average minimum	Average	Departure from normal	Highest	Date	Lowest	Date	Max. 90 F. or above	Min. 32 F. or below	Average dew point		Total	Departure from normal	Greatest in 24 hours	.01 inch or more	With thunderstorms	Total	Maximum depth on ground	Average speed	Prevailing direction	Speed	Direction	Date	Clear, 0-3	Partly cloudy, 4-7	Cloudy, 8-10		
ALABAMA	Ft.	Mb.	Mb.	°F.	F.	°F.	F.	°F.		°F.				F.	%	In.	In.	In.			In.	In.	M.p.h.		M.p.h.							%
BIRMINGHAM	610	995.9	1021.9	53	32	42.6	- 3.2	74	2+	1	13	0	14	33	74	2.55	-2.47	0.84	10	1	T	T	8.5	NNW	31	NW	6	8	9	14	6.2	47
HUNTSVILLE	605	998.0	1021.9	49	28	38.6	- 5.0	71	2	0	13	0	17	29	70	3.33	-1.58	1.36	9	0	3.3	1	8.9	WNW	39*	ESE	24	9	6	16	6.7	
MOBILE	211	1019.0	1021.3	60	41	50.6	- 2.5	74	4	10	13	0	6	39	69	4.54	-0.92	2.37	14	0	0.0	0	7.5	NE	23*	NNW	12	12	4	15	5.8	
MONTGOMERY	195	1013.2	1021.7	56	33	44.7	- 3.5	73	20	5	13	0	12	31	64	1.82	-2.99	0.68	11	0	T	T	8.6	N	30	NW	29	13	6	12	5.3	52
ALASKA												B																				
ANCHORAGE	90	1004.1	1009.3	23	10	16.6	2.3	47	24	-19	7	0	31	9	72	1.06	0.12	0.65	9	0	4.9	3	6.1	N	36*	N	9	11	3	17	6.3	37
ANNETTE	110	1007.5		44	35	39.6	3.6	62	12	17	31	0	11	33	79	15.75	3.64	4.15	24	0	7.8	5	10.4	ESE	35	SSE	4	1	7	23	8.8	
BARROW	22	1021.0	1021.6	- 2	-15	- 8.9	2.3	26	23	-36	6	0	31	-17	64	0.06	-0.11	0.03	3	0	0.8	9	10.8	NE	35*	W	25+	z	z	z		
BARTER ISLAND	39	1019.3	1021.3	2	-11	- 4.6	5.8	27	24+	-31	8	0	31	-14	62	0.36	0.07	0.08	9	0	3.6	10	14.9	W	51*	W	30	z	z	z		
BETHEL	125	1011.9	1013.1	9	- 4	2.8	- 2.0	37	22	-25	5+	0	31	- 9	58	0.64	-0.38	0.44	10	0	6.7	3	13.1	NNE	43*	NNE	9	14	2	15	5.2	
COLD BAY	94	1003.1	1007.1	33	25	29.3	1.1	44	26	12	30	0	28	25	84	1.02	-1.57	0.36	14	0	6.7	5	16.2	NNW	46*	SSE	20	4	4	23	8.1	
CORDOVA	40	1005.4	1007.1	34	19	26.7	1.1	50	12+	- 7	7	0	26	22	81	5.42	-1.36	1.31	17	0	8.6	7	5.5	ESE	23*	ESE	24	6	4	21	7.4	
FAIRBANKS	436	999.3	1017.7	2	-15	- 6.5	1.2	28	24	-41	8	0	31	-12	75	0.56	0.02	0.28	7	0	6.0	6	3.3	N	14*	WSW	26+	9	5	17	6.5	
JUNEAU	17	1010.5	1011.3	33	24	28.3	- 0.1	45	13	0	31+	0	24	23	80	8.16	3.94	2.38	19	0	41.3	40	6.9	ESE	29*	ESE	13	6	1	24	8.1	24
KING SALMON	43	1006.1	1008.3	19	6	12.4	- 0.8	48	22	-20	5+	0	27	7	77	0.75	-0.27	0.45	8	0	7.8	4	11.6	N	44*	E	22	11	4	16	6.0	
KOTZEBUE	10	1018.3	1018.9	4	-10	- 2.7	0.9	27	25+	-31	6	0	31	- 8	78	0.30	0.01	0.12	7	0	6.6	8	8.7	ENE	38*	E	21	11	4	16	6.2	
MC GRATH	334	1002.7		2	-15	- 6.9	0.1	31	24	-51	7	0	31			0.30	-0.71	0.10	8	0	15.2	18	2.2	N	17*	N	24	10	5	16	6.0	
NOME	13	1016.6	1017.4	9	- 8	.9	- 5.4	30	23+	-25	31	0	31	- 5	76	0.44	-0.55	0.29	7	0	11.9	10	7.0	N	39*	NE	9	12	7	11	5.2	39
ST. PAUL ISLAND	22	1010.2	1011.4	32	22	27.1	0.7	41	20	13	30	0	30	23	80	1.24	-0.59	0.73	9	0	11.9	13	22.1	ENE	53*	N	10+	7	5	19	7.2	
SHEMYA	122	1003.7	1007.3	38	31	34.5	3.1	41	29+	23	19	0	19	30	84	3.44	1.30	1.11	22	0	7.4	4	22.3	E	51	SSW	16	1	8	22	8.5	
YAKUTAT	28	1006.8	1008.0	35	26	30.3	2.2	44	13+	4	31	0	24	25	82	13.63	1.36	2.72	22	0	42.5	50	8.7	E	32*	ENE	29+	3	5	23	8.4	
ARIZONA																																
FLAGSTAFF	6993	792.1	1022.8	47	16	31.6	0.7	60	15	- 8	25	0	31	19	65	0.85	-0.80	0.40	4	0	3.8	3	6.3	NE	25*	NE	21	21	2	8	3.2	
PHOENIX	1109	978.7	1018.3	69	41	55.0	2.4	80	9	33	29	0	0	32	48	0.48	-0.37	0.32	4	0	0.0	0	4.8	ESE	23*	WSW	24	19	4	8	3.4	83
PRESCOTT	5014	849.3	1021.1	56	27	41.4	2.1	67	8	12	25	0	26	25	59	0.45	-0.55	0.35	3	0	T	T	7.0	S	39	SW	24	17	8	6	3.2	80
TUCSON	2584	928.2	1017.6	65	43	54.0	2.6	76	16	35	29+	0	0	36	58	0.93	0.01	0.61	7	1	0.0	0	8.4	SE	30	W	27	17	6	8	4.0	79
WINSLOW	4880	855.7	1025.0	49	21	35.0	2.0	57	23	10	31	0	30	23	69	0.05	-0.47	0.04	2	0	T	T	5.0	SW	26*	WSW	24	20	3	8	3.3	
YUMA	199	1013.5	1018.7	74	46	59.8	1.8	84	9+	35	28	0	0	32	42	0.37	0.05	0.34	3	0	0.0	0	7.2	N	21	N	25	20	4	7	2.9	86
ARKANSAS																																
FORT SMITH	449	1005.0	1022.6	53	32	42.1	- 0.2	70	18	7	12	0	19	31	71	0.80	-2.02	0.35	4	0	T	T	7.3	ENE	28	W	5	11	6	14	5.7	53
LITTLE ROCK	257	1008.9	1022.6	53	31	41.8	- 0.1	71	2	8	12	0	20	30	69	1.65	-2.44	0.80	7	1	1.5	T	7.6	WSW	33	W	15	13	3	15	5.5	54
TEXARKANA	361		1022.5	55	37	46.0	- 0.9	72	2	15	12	0	9	37	76	1.16	-3.39	0.41	8	1	T	T	8.0	NW								
CALIFORNIA																																
BAKERSFIELD	494	1003.4	1021.6	62	37	49.5	0.7	76	15	21	26	0	9	37	67	T	-0.97	T	0	0	0.0	0	5.7	NW	23*	SE	25	14	7	10	5.0	
BISHOP	4108	878.4		61	21	40.6	1.3	74	6	3	26	0	29			0.00	-1.18	0.00	0	0	0.0	0						21	4	6	2.7	
BLUE CANYON	5280	841.9		53	39	45.9	6.1	69	7	21	24	0	6			8.74	-1.50	4.23	8	0	0.0	0	8.0	ENE	43	ENE	24	16	5	10	4.3	
BURBANK	699	991.5	1018.9	68	44	56.1	0.5	80	5	32	28	0	1	38	59	0.01	-2.70	0.01	1	0	0.0	0	4.6	ESE	17*	NE	26	16	7	8	4.3	
EUREKA U	43	1018.3		56	44	49.7	0.8	70	14	32	24	0	1			2.58	-4.13	1.46	7	0	0.0	0	5.7	S#	35	SW	2	9	3	19	6.7	47
FRESNO	326	1008.5	1020.7	59	36	47.4	1.0	73	14	23	27+	0	9	40	81	0.48	-1.49	0.40	5	0	0.0	0	4.5	NW	15	NW	17	10	9	12	5.8	58
LONG BEACH	34	1018.0	1019.4	68	48	57.9	2.9	82	4	32	28	0	1	46	74	0.01	-1.96	0.01	1	0	0.0	0	5.2	WNW	23*	ENE	25	7	12	12	5.8	
LOS ANGELES	97	1015.6	1019.5	64	49	56.6	0.7	74	5	36	27	0	0	46	74	0.01	-2.38	0.01	1	0	0.0	0	6.1	W	16*	W	27	8	13	10	5.5	
LOS ANGELES U	312			66	49	57.4	- 0.8	78	4	41	27	0	0		62	T	-2.87	T	0	0	0.0	0	5.1	W#	19	SE	16	17	8	6	3.6	79
MT SHASTA R	3544	896.5		49	30	39.6	3.7	64	11	12	25	0	22			3.64	-2.58	1.41	8	0	T	T						16	5	10	4.5	
OAKLAND	3	1020.3	1020.8	56	43	49.5	0.0	63	15+	32	28+	0	2	43	82	2.47	-1.11	1.12	10	0	0.0	0	5.3	E	25*	SSE	15	10	7	14	5.8	
POINT ARGUELLO	367	1005.4		63	43	53.0	- 0.9	79	5	26	27	0	5			0.72	-1.38	0.71	3	0	0.0	0	6.2		26*	SE	16	12	9	10	4.9	
RED BLUFF	341	1008.1	1021.1	60	39	49.0	1.9	72	9+	25	27	0	6	38	75	3.63	-0.58	1.93	8	0	0.0	0	7.5	NW	39	SE	2	16	5	10	4.5	66
SACRAMENTO	17	1020.7	1021.6	52	40	46.0	- 1.4	62	18+	24	29	0	8	42	90	1.84	-1.40	0.88	4	0	0.0	0	2.9	NNW	30	NW	24	7	4	20	7.2	34
SACRAMENTO U	225			54	41	47.4	- 0.4	63	14	28	30	0	7			1.74	-1.81	0.83	4		0.0	0										
SANDBERG R	4517	865.6		53	40	46.3	3.6	65	14	20	26	0	4			T	-2.49	T	0	0	0.0	0	13.4	ENE	35*	N	3	21	5	5	2.8	
SAN DIEGO	13	1015.2	1018.6	65	48	56.4	- 1.2	77	4	40	31+	0	0	46	73	0.22	-1.83	0.20	2	0	0.0	0	5.7	NE	18	NW	15+	12	10	9	4.8	65
SAN FRANCISCO	8	1020.3	1021.2	56	44	49.6	- 0.5	64	14+	31	25	0	1	45	85	2.97	-1.12	1.44	7	0	0.0	0	5.7	S	30	ENE	24	10	7	14	5.5	
SAN FRANCISCO U	52			58	48	52.9	0.4	65	14+	41	27	0	0			2.81	-1.46	1.23	8	0	0.0	0	5.6	NW#	17	SW	2					36
SANTA MARIA	238	1011.2	1019.9	66	40	53.0	0.6	81	4	24	26	0	6	43	75	0.26	-2.32	0.25	3	0	0.0	0	4.7	WNW	28*	SE	16	15	9	7	4.1	
COLORADO																																
ALAMOSA	7536	772.0		44	6	25.2	6.0	54	15	-17	27	0	31			0.15	-0.10	0.08	3	0	1.6	1						21	4	6	3.2	

See footnotes at end of table

CLIMATOLOGICAL DATA
ENGLISH UNITS

State and Station	Elevation (ground)	Pressure		Temperature												Precipitation							Wind					No. of days (sunrise to sunset)				
												No. of days							No. of days		Snow, Sleet				Fastest mile							
		Station Ø	Sea level	Average maximum	Average minimum	Average	Departure from normal	Highest	Date	Lowest	Date	Max. 90°F. or above	Min. 32°F. or below	Average dew point	Average relative humidity	Total	Departure from normal	Greatest in 24 hours	.01 inch or more	With thunderstorms	Total	Maximum depth on ground	Average speed	Prevailing direction	Speed	Direction	Date	Clear, 0-3	Partly cloudy, 4-7	Cloudy, 8-10	Sky cover, tenths (sunrise to sunset)	Possible sunshine
COLORADO	Ft.	Mb.	Mb.	F.	F.	F.	F.	F.		F.				F.	%	In.	In.	In.			In.	In.	M.p.h.		M p.h.							%
COLORADO SPRINGS	6173	812.4	1022.6	48	23	35.4	3.7	63	6	1	26	0	27	13	47	0.03	-0.21	0.02	2	0	0.5	T	9.0	NE	32	NNE	22	13	9	9	4.6	
DENVER	5283	838.8	1020.7	49	19	33.8	0.7	67	17	- 8	25	0	31	15	54	0.17	-0.30	0.10	4	0	1.2	1	9.8	S	37	NW	6	13	7	11	5.1	73
GRAND JUNCTION	4849	864.9	1026.5	41	17	29.3	0.2	53	9+	-12	26	0	30	16	63	0.36	-0.21	0.27	3	0	4.9	4	3.4	ESE	17	S	23	15	8	8	4.2	79
PUEBLO	4639	858.1	1021.3	52	20	36.0	2.8	70	17	- 3	26	0	31	18	56	0.19	-0.11	0.14	3	0	1.3	1	5.9	W	39	NNE	22	18	9	4	3.5	88
CONNECTICUT																																
BRIDGEPORT	7	1016.6	1017.4	36	22	28.8	- 4.4	62	1	- 1	30	0	26	20	70	2.01	-1.50	0.59	12	0	7.5	4	15.2	NW	53	WSW	7	11	5	15	6.1	
HARTFORD	169	1010.2	1016.3	33	12	22.5	- 7.0	57	1	- 9	30	0	29	16	75	2.61	-0.86	0.71	12	1	15.9	7	8.3	N	38	NW	30	9	5	17	6.3	53
NEW HAVEN	6	1015.9	1016.6	36	20	27.9	- 4.5	63	1	- 2	31+	0	26			2.58	-1.44	0.75	14	0	8.9	3	9.7		41	NW	31	11	4	16	6.2	51
DELAWARE																																
WILMINGTON	78	1014.9	1018.0	38	22	30.3	- 4.8	66	1	3	31	0	28	20	67	2.50	-0.53	1.21	7	1	8.6	3	11.9	NW	44*	WNW	31	11	4	16	6.1	
DIST.OF COLUMBIA																																
WASHINGTON U	72			41	27	33.9	- 4.3	65	1	11	31	0	23			3.56	0.81	1 1.16	5													
WASH NATL AP	14	1014.2	1018.8	40	26	33.2	- 4.9	64	1	11	31	0	25	18	57	3.33	0.55	1.09	8	0	16.2	7	8.9	N	34	NW	31	13	1	17	6.0	51
FLORIDA																																
APALACHICOLA U	13	1019.0		61	46	53.2	- 2.6	74	22	13	13	0	3			2.27	-0.69	1.33	10	1	0.0	0	5.7		23	NW	12+	10	8	13	5.2	65
DAYTONA BEACH	31	1019.0	1020.8	66	44	55.0	- 5.3	82	25	21	13	0	7	47	78	0.71	-1.24	0.26	7	1	T	T	7.6	NW	28*	WNW	6	10	10	11	5.7	
FORT MYERS	13	1019.6		73	51	61.7	- 3.3	86	25	26	13	0	2		76	0.85	-0.44	0.67	4	0	0.0	0	8.7		29*	NW	6	14	9	8	4.7	
JACKSONVILLE	24	1020.0	1021.1	63	41	52.3	- 3.8	79	22	12	13	0	6	41	71	2.46	0.24	1.79	8	0	T	T	6.7	NW	31	W	6+	13	8	10	5.2	66
KEY WEST	5	1018.3	1019.3	72	62	67.2	- 3.4	83	5	46	13	0	0	59	76	3.65	1.96	2.52	6	0	0.0	0	10.6	NE	33	NW	6	9	12	10	5.1	73
LAKELAND U	214			69	49	59.2	- 3.2	83	25	20	13	0	3			0.14	-1.72	0.06	5	0	0.0	0	6.7					11	9	11	4.8	62
MIAMI BEACH	9			74	60	67.1	- 3.2	80	28+	36	13	0	0			0.22	-1.56	0.08	4		0.0	0	11.8	N	27	NW	5	13	11	7	4.6	64
MIAMI	7	1018.6	1019.8	73	55	63.7	- 4.4	82	27	35	14+	0	0	53	70	0.20	-1.47	0.06	4	0	0.0	0	7.0	NNW	23*	NNE	30	8	11	12	5.5	
ORLANDO	106	1015.9	1020.6	69	47	57.7	- 3.7	83	25	20	13	0	4	47	71	1.70	-0.19	1.45	7	1	0.0	0	8.1	NNW	25*	WNW	6	11	10	10	5.3	
PENSACOLA U	13			60	44	51.8	- 3.2	73	1	10	13	0	5			3.78	-0.38	1.58	13	0	0.0	0	9.0	N#	24	SW	11+					55
TALLAHASSEE	58	1018.6	1021.4	63	38	50.6	- 3.5	75	22	10	13	0	10	41	75	2.44	-1.00	1.25	7	0	T	T	7.7	N	23*	N	29+	10	7	14	5.6	
TAMPA	19	1019.3	1021.0	68	48	58.2	- 4.1	80	25+	18	13	0	3	48	72	0.46	-1.43	0.24	6	0	0.0	0	10.8	N	29*	WNW	5	12	8	11	5.3	62
WEST PALM BEACH	15	1019.0	1020.1	73	53	62.8	- 5.4	82	27+	30	13	0	1	52	71	1.21	-1.36	1.15	3	0	0.0	0	8.8	NNW	25*	NW	6	11	10	10	5.4	
GEORGIA																																
ATHENS	803	991.2	1020.8	52	30	41.1	- 3.5	70	2	2	13	0	18	30	70	2.44	-2.09	0.98	9	0	T	T	9.1	WNW	25*	WNW	6	13	3	15	5.4	
ATLANTA	1005	977.7	1020.8	50	31	40.3	- 3.8	69	18	1	13	0	15	29	68	2.34	-2.04	1.05	6	0	T	T	9.9	WNW	21*	W	6	12	7	12	5.4	58
AUGUSTA	143	1013.2	1020.2	56	32	44.0	- 3.2	74	20	6	13	0	14	33	72	1.96	-1.37	1.28	7	0	T	T	7.2	WNW	29*	WNW	9	12	5	14	5.5	
COLUMBUS	385	1006.8		56	34	44.7	- 3.0	72	1	4	13	0	12			2.69	-1.87	0.97	10	0	0.0	0	7.6		24	N	6	11	8	12	5.5	
MACON	356	1006.8	1020.8	57	34	45.2	- 3.8	72	20+	5	13	0	10	32	66	2.07	-1.98	0.86	8	0	T	T	7.5	NW	27	W	6	10	7	14	5.5	56
ROME	637	998.0		50	26	38.0	- 4.4	70	2+	0	13	0	22			2.96	-2.17	1.14	10	0	T	T						10	6	15	6.2	
SAVANNAH	48	1018.3	1020.8	58	36	47.2	- 4.2	75	20	9	13	0	11	36	70	1.70	-1.11	0.54	7	0	T	T	9.3	W	37	NW	6	10	9	12	5.5	63
THOMASVILLE U	283			61	41	50.7	- 3.2	76	21	8	13	0	7			3.16	-0.18	0.74	10	0	0.0	0						12	4	15	5.5	
HAWAII																																
HILO	31	1013.2	1015.6	79	63	70.8	- 0.7	85	10	59	28+	0	0	62	77	2.31	-2.87	0.46	13	0	0.0	0	6.6	SW	28	N	22	6	14	11	5.9	44
HONOLULU	7	1014.9	1015.3	81	65	72.7	- 0.9	84	7	54	20	0	0	62	72	3.32	0.33	2.01	9	0	0.0	0	9.3	ENE	27	W	21	5	15	11	6.3	54
KAHULUI	44	978.0	1015.1	80	63	71.5		85	3	54	24	0	0	62	74	1.47		1.00	8	0	0.0	0	15.3	S	38*	NE	30+	15	10	6	4.6	70
LIHUE	115	1009.8	1015.8	79	64	71.4	- 0.8	82	25+	56	22	0	0	62	75	1.14	-4.04	0.51	11	0	0.0	0	10.3	W	25	SW	12+	9	10	12	5.7	56
IDAHO																																
BOISE	2838	926.9	1025.8	42	28	35.4	3.2	57	2	15	27+	0	22	27	76	0.25	-1.07	0.17	5	0	T	T	5.2	SE	24	SE	2	3	6	22	8.1	54
IDAHO FALLS 42NW R	4790			35	11	22.8	4.0	49	16	-16	25	0	31			0.25	-0.36	0.24	2				3.6	N	27Y	S	2					
IDAHO FALLS 46W R	4933	853.4		35	12	23.7	2.9	48	16	-15	25	0	31			0.25	-0.34	0.25	1	0	T	T	3.7	NE	32Y	SSW	2					
LEWISTON	1413	970.5		43	31	36.8	1.9	54	6+	12	25	0	17			1.67	0.30	0.64	10	0	T	T						1	7	23	8.7	
POCATELLO	4444	868.9	1026.9	39	21	30.2	2.8	53	17	- 3	25	0	31	22	73	0.45	-0.55	0.39	3	0	0.5	2	8.1	SSW	32	W	2	4	7	20	7.5	54
ILLINOIS																																
CAIRO U	314	1008.5		43	28	35.4	- 4.1	66	1	0	12	0	23			2.64	-1.03	1.39	10	0	2.2	2	7.9	S#	28	SW	13	11	9	11	5.3	58
CHICAGO O HARE	658	993.9	1019.6	32	14	23.2		64	2+	-13	26	0	28	15	70	0.23		0.12	5	0	2.3	2	10.7	WNW	28*	W	22	7	6	18	6.8	
CHICAGO MIDWAY	610	996.4	1020.3	33	18	25.0	- 4.2	63	2	- 7	12	0	25	15	66	0.30	-1.60	0.10	9	0	4.3	1	11.5	NW	29	W	23+	7	6	18	7.0	38
MOLINE	582	997.8	1021.1	33	13	23.2	- 4.2	64	2	-19	26	0	28	14	66	0.55	-1.10	0.21	4	0	3.1	3	12.2	WNW	36	NW	22	10	4	17	6.1	51

See footnotes at end of table

CLIMATOLOGICAL DATA
ENGLISH UNITS

DECEMBER 1962

State and Station	Elevation (ground)	Pressure		Temperature												Precipitation							Wind					No. of days (sunrise to sunset)			Sky cover, tenths (sunrise to sunset)	Possible sunshine
												No. of days							No. of days		Snow, Sleet				Fastest mile							
		Station Ø	Sea level	Average maximum	Average minimum	Average	Departure from normal	Highest	Date	Lowest	Date	Max. 90 F. or above	Min. 32 F. or below	Average dew point	Average relative humidity	Total	Departure from normal	Greatest in 24 hours	.01 inch or more	With thunderstorms	Total	Maximum depth on ground	Average speed	Prevailing direction	Speed	Direction	Date	Clear, 0-3	Partly cloudy, 4-7	Cloudy, 8-10		
ILLINOIS	Ft.	Mb.	Mb.	°F.	F.	F.	F.	°F.		F.				F.	%	In.	In	In.			In.	In.	M.p.h.		M.p.h.							%
PEORIA	652	896.8	1021.7	33	14	23.6	- 5.5	62	2	-12	26	0	27	16	71	0.33	-1.61	0.13	7	0	2.1	2	11.1	WNW	32	W	22	11	5	15	5.9	53
ROCKFORD	728	991.7	1020.2	31	13	22.1	- 3.5	62	2	-13	26	0	29	15	74	0.50	-1.20	0.18	6	0	3.7	3	11.1	NW	27*	WNW	22	7	7	17	6.7	
SPRINGFIELD	588	997.1	1021.4	36	17	26.6	- 4.9	66	2	- 9	12	0	27	16	65	0.53	-1.36	0.36	8	0	4.7	3	11.9	WNW	32	W	8	13	4	14	5.5	56
INDIANA																																
EVANSVILLE	381	1005.4	1021.9	40	20	30.0	- 6.1	65	18+	- 7	12	0	29	21	71	2.74	-0.34	1.47	9	0	0.9	1	5.1	NW	24	SW	13+	9	8	14	6.1	52
FORT WAYNE	791	987.0	1019.6	32	15	23.5	- 5.4	61	4+	- 7	12	0	30	17	78	0.42	-1.67	0.18	7	0	5.2	3	11.2	W	36	W	23	5	12	14	6.6	42
INDIANAPOLIS	793	989.3	1020.6	35	16	25.5	- 5.6	64	2	- 7	12	0	30	18	76	1.09	-1.59	0.40	12	0	6.1	3	8.6	NW	26*	N	29	10	5	16	6.2	63
SOUTH BEND	768	991.5	1018.9	32	16	24.0	- 4.7	60	1	- 4	13	0	30	19	81	2.64	0.45	0.57	19	0	41.9	23	11.8	SSW	30*	NW	6	3	7	21	7.9	
IOWA																																
BURLINGTON	694	994.8	1021.6	35	15	24.9	- 3.5	66	2	-15	26	0	26	17	71	0.50	-1.10	0.21	7	0	3.8	3	11.2	WNW	43	NW	8	12	3	16	5.7	64
DES MOINES	948	988.6	1021.9	33	15	24.0	- 2.5	63	1	-15	26	0	28	17	76	0.50	-0.64	0.22	6	0	3.1	3	9.5	NW	37	NW	22	10	8	13	5.7	41
DUBUQUE	1065	994.0		30	13	21.2	- 2.3	62	2	-23	26	0	27			0.82	-1.08	0.42	8	0	4.4	3			*			8	8	15	6.2	
SIOUX CITY	1095	978.6	1021.8	35	15	25.3	0.8	64	16	-11	26+	0	28	15	66	0.28	-0.46	0.13	5	0	4.8	4	10.8	NNW	45	NW	22	8	7	16	6.5	54
WATERLOO	868	987.7	1021.1	31	12	21.5	- 1.7	63	3+	-25	26	0	27	15	75	0.28	-0.85	0.13	4	0	2.5	2	11.5	NW	30*	WNW	22	9	8	14	6.0	
KANSAS																																
CONCORDIA	1470	970.1	1021.8	42	22	31.9	- 0.6	66	16	- 5	12	0	26	22	71	0.93	0.22	0.47	8	0	5.8	4	11.0	NW	42	NW	8	10	7	14	5.8	52
DODGE CITY	2594	930.7	1021.5	47	25	36.3	1.6	70	16	- 2	26	0	23	24	67	0.48	0.01	0.41	4	0	0.7	1	10.3	SSW	38	N	22	12	5	14	5.5	63
GOODLAND	3645	890.3	1021.3	48	20	33.9	3.5	74	16	- 6	25	0	31	19	63	0.32	-0.12	0.23	3	0	2.3	1	11.7	WSW	48*	NNW	22	14	5	12	4.7	
TOPEKA	877	985.1	1022.2	42	22	31.9	- 1.5	68	17	-10	26	0	26	25	75	0.42	-0.97	0.19	6	0	2.3	2	10.8	NW	33	NW	22	12	3	16	5.9	48
WICHITA	1321	970.7	1021.8	45	25	34.9	- 0.9	63	17+	- 5	26	0	24	26	73	0.60	-0.34	0.24	7	0	4.2	4	11.6	S	39	N	22	10	5	16	5.9	47
KENTUCKY																																
COVINGTON	869	987.1	1020.0	39	18	28.5	- 5.8	67	2+	- 3	13+	0	29	20	72	1.66	-1.39	0.70	11	0	4.7	1	7.7	WSW	24*	W	6	8	5	18	6.7	
LEXINGTON	979	984.1	1020.9	40	22	30.8	- 5.1	66	1	- 6	13	0	25	24	78	2.36	-1.09	1.09	11	0	2.4	1	9.1	WSW	23	W	6	8	7	16	6.6	
LOUISVILLE	474	1003.4	1021.1	40	21	30.3	- 5.5	64	4+	- 3	13+	0	29	22	73	2.74	-0.48	1.37	12	0	1.8	1	7.9	WSW	28	N	5	6	7	18	6.7	42
LOUISIANA																																
ALEXANDRIA	92	1017.9	1022.7	59	36	47.5		76	4	12	13	0	9	38	76	4.47		2.03	8	0			5.8	NE				10	8	13	5.8	
BATON ROUGE	64	1018.9	1022.0	63	42	52.1	- 1.6	77	3+	11	13	0	5	41	72	2.90	-2.20	2.17	10	2	0.0	0	7.5	NNE				7	12	12	6.0	
BURRWOOD R	5		1021.5											51	83			0.62			0.0	0	12.4	NE								
LAKE CHARLES	14	1020.7	1022.0	61	43	52.1	- 2.5	76	20	18	13	0	3	45	80	4.01	-1.75	2.06	5	0	0.0	0	9.3	NE	29	N	5	8	7	16	6.5	
NEW ORLEANS	3	1019.5	1021.8	61	42	51.0	- 3.9	76	21	17	13	0	6	43	80	4.47	0.37	2.49	11	0	0.0	0	7.9	NE	28*	NNE	5	6	10	15	6.2	
NEW ORLEANS AUDUBON	6	1013.7		63	47	54.6		78	21	18	13	0	4			2.31		1.15	14	0	0.0	0	4.7		19	N	5	8	10	13	6.0	49
SHREVEPORT	252	1013.4	1022.9	58	39	48.5	- 1.1	78	4	16	13	0	7	37	71	2.35	-2.59	0.76	10	1	0.0	0	9.1	S				11	5	15	5.7	55
MAINE																																
CARIBOU	624	989.8	1014.2	25	8	16.6	1.1	45	1	-16	27	0	31	11	78	3.18	0.75	0.89	13	0	37.4	31	10.7	SW	52*	NNW	30	3	10	18	7.4	
PORTLAND	61	1010.8	1015.1	35	12	23.8	- 2.0	62	1	- 7	25	0	29	16	75	5.47	1.62	3.46	10	0	14.3	9	9.4	NNW	45	E	6	12	6	13	5.3	60
MARYLAND																																
BALTIMORE	146	1013.9	1018.6	40	22	30.9	- 4.9	66	1	5	31	0	28	17	66	2.92	-0.07	1.16	7	0	11.7	5	10.2	WNW	34	NW	30	13	2	16	5.7	48
BALTIMORE U	14			41	27	34.1	- 4.9	68	1	9	31	0	21			2.94	-0.22	1.25	6													
MASSACHUSETTS																																
BLUE HILL OBS R	629	989.9	1014.1	35	19	26.8	- 3.2	62	1	- 9	30	0	26		69	3.97	0.01	1.86	12		6.1	5	15.8	WNW	66	WNW	30					56
BOSTON	15	1010.2	1015.2	37	23	30.0	- 3.3	64	1	- 4	31	0	22	19	64	4.53	0.90	2.10	10	0	5.3	4	15.3	WNW	49	NW	30	12	7	12	5.5	62
NANTUCKET	43	1014.6	1015.0	40	27	33.5	- 2.1	53	6+	- 3	31	0	23	26	76	4.06	0.13	1.28	19	0	17.0	4	16.3	NW	47	NW	30	4	6	21	7.6	35
PITTSFIELD	1170			32	10	21.3	- 4.0	62	1	-17	31	0	30			2.48	-0.77	1.06	15		17.5	9										
WORCESTER	986	976.6	1014.8	32	17	24.2	- 3.0	62	1	-13	30	0	26	17	74	3.94	0.35	1.64	13	0	18.1	12	10.0	W	31	WNW	31+	10	9	12	5.3	
MICHIGAN																																
ALPENA	689	989.6		30	13	21.6	- 3.0	61	3	-10	26	0	30			1.61	-0.23	0.75	16	0	21.8	11	7.4	W#	30	NW	29	2	11	18	7.6	58
DETROIT	619	990.1	1017.9	32	19	25.1	- 4.8	58	3	1	13	0	28	19	78	1.02	-1.06	0.35	11	0	11.2	5	11.3	WNW	38	NW	23	4	9	18	7.2	41
DETROIT M WAYNE CO	633	993.4	1018.3	33	16	24.2	- 4.7	60	4	- 3	11	0	30	18	78	1.13	-0.79	0.35	14	0	17.4	7	9.9	WSW				5	9	17	7.1	
DETROIT WILLOW RUN	711	988.7	1018.1	31	16	23.5	- 5.9	56	4+	0	31+	0	30	19	84	1.36	-0.62	0.73	13	0	14.7	8	12.5	SW	32	NW	23+	5	9	17	7.1	
ESCANABA U	594	993.6		28	14	20.8	- 2.5	50	2	-12	26	0	26			1.41	0.01	0.65	10	0	7.7	6	11.5		42	NW	6	5	8	18	7.1	32
FLINT	766	989.4	1018.3	32	14	22.9	- 4.0	62	3	- 5	31+	0	30	17	79	0.61	-1.19	0.25	10	0	12.8	8	10.0	WSW	32*	WSW	23	6	8	17	7.1	

See footnotes at end of table

CLIMATOLOGICAL DATA
ENGLISH UNITS

State and Station		Pressure		Temperature												Precipitation							Wind					No. of days (sunrise to sunset)				
												No. of days							No. of days		Snow, Sleet				Fastest mile							
	Elevation (ground)	Station Ø	Sea level	Average maximum	Average minimum	Average	Departure from normal	Highest	Date	Lowest	Date	Max. 90 F. or above	Min. 32 F. or below	Average dew point	Average relative humidity	Total	Departure from normal	Greatest in 24 hours	.01 inch or more	With thunderstorms	Total	Maximum depth on ground	Average speed	Prevailing direction	Speed	Direction	Date	Clear, 0-3	Partly cloudy, 4-7	Cloudy, 8-10	Sky cover, tenths (sunrise to sunset)	Possible sunshine
MICHIGAN	Ft.	Mb.	Mb.	F.	F.	F.	F.	F.		F.				F.	%	In.	In.	In.			In.	In.	M.p.h.		M.p.h.							%
GRAND RAPIDS	681	991.5	1018.4	33	16	24.5	- 3.5	60	2	- 5	31	0	29	19	80	1.84	-0.19	0.55	16	0	26.2	12	10.6	WNW	34	W	23	2	5	24	8.3	37
LANSING	1082	984.6	1017.9	31	15	23.2	- 4.3	60	4+	- 7	31	0	29	16	77	1.32	-0.67	0.74	14	0	14.9	9	14.0	WNW	50	W	23	5	8	18	7.0	50
MARQUETTE U	677	988.4		28	15	21.7	- 2.4	59	3	-10	26	0	28			2.57	0.65	0.61	20	0	23.2	12	10.1	NW#	36	SW	28	0	4	27	9.1	28
MUSKEGON	627	994.2	1018.0	33	20	26.2	- 2.7	59	1	2	30	0	29	21	82	3.97	1.97	0.88	16	0	54.2	21	11.9	NNW	33*	NW	29	0	6	25	8.7	
SAULT STE MARIE	721	991.8	1015.5	26	12	18.6	- 1.8	50	4+	-14	30	0	27	14	79	2.09	-0.19	0.35	23	0	29.7	14	9.5	N	40*	WNW	29	4	3	24	8.2	34
MINNESOTA																																
DULUTH	1426	975.1	1018.5	23	6	14.6	0.6	55	3	-20	26	0	30	7	70	0.90	-0.26	0.30	15	0	8.4	7	12.6	NW	43	NW	28	6	6	19	7.3	44
INTERNATIONAL FALLS	1179	975.5	1019.0	20	0	10.3	0.9	56	3+	-28	30	0	30	3	70	1.01	0.16	0.33	13	0	6.1	4	9.3	NW	32*	WNW	28	8	4	19	7.0	
MINNEAPOLIS	822	985.2	1020.4	28	10	19.0	1.2	62	3	-20	26+	0	28	10	67	0.26	-0.60	0.12	4	0	3.2	3	12.5	NW	32	NW	8	3	10	18	7.3	38
ROCHESTER	1297	970.2	1020.4	28	11	19.3	- 0.3	62	1	-18	26	0	28	13	76	0.28	-0.69	0.17	6	0	4.5	3	14.8	NW				5	9	17	7.0	
ST CLOUD	1034	980.6	1012.5	27	9	17.8	1.2	58	1	-17	25	0	28	7	70	0.13	-0.60	0.04	7	0	1.8	1						8	6	17	7.0	
MISSISSIPPI																																
JACKSON	305	1009.5	1021.9	57	36	46.5	- 2.5	75	20+	8	13	0	9	37	74	3.25	-2.07	1.57	10	1	0.0	0	7.3	N	30	N	11	9	9	13	5.9	51
MERIDIAN	292	1008.1	1022.4	56	32	44.2	- 4.1	74	3+	4	13	0	14	35	76	2.56	-2.75	0.96	10	1	0.0	0	6.7	N	23*	E	24	10	8	13	5.8	
VICKSBURG U	234	1012.2		56	39	47.6	- 2.7	74	20+	9	13	0	5			3.93	-1.01	1.75	9	1	0.0	0	8.2		27	NNE	5	11	7	13	5.5	59
MISSOURI																																
COLUMBIA	778	991.1	1021.0	40	22	31.1	- 2.7	67	2	- 7	12	0	24	22	72	0.77	-1.19	0.50	7	0	3.0	2	11.3	WNW	38	NW	8	12	7	12	5.2	64
KANSAS CITY	742	985.4	1021.7	42	24	32.8	- 2.0	68	17	- 2	26+	0	24	23	69	1.04	-0.49	0.57	8	0	5.1	4	6.8	WNW	34	NW	8	11	4	16	6.1	53
ST JOSEPH	809	986.0		39	20	29.4	- 2.1	63	3+	- 9	26	0	26			0.62	-0.74	0.24	8	0	5.6	3	10.0	NW	31*	NW	22+	11	6	14	5.7	
ST LOUIS	535	1000.4	1021.8	40	22	31.2	- 3.6	66	3	- 5	12	0	25	21	68	1.99	0.02	1.42	9	0	0.8	1	10.4	WNW	31	NW	23	13	5	13	5.2	58
ST LOUIS RFC	465			41	25	33.1	- 3.4	67	18	- 4	12	0	24			2.24	0.07	1.30	9	0	0.7	T										
SPRINGFIELD	1265	972.6	1021.7	45	24	34.1	- 2.6	68	18+	- 5	12	0	24	25	72	1.43	-0.76	1.03	6	0	0.2	T	10.5	SSE	40	NW	9	11	6	14	5.5	61
MONTANA																																
BILLINGS	3567	893.0	1020.3	43	23	32.7	3.8	61	15	- 4	24	0	24	17	57	0.23	-0.36	0.10	8	0	1.3	1	13.6	WSW	42	NW	21	7	11	13	6.2	61
GLASGOW	2277	942.1		34	15	24.5	6.8	54	16	- 5	25+	0	31			0.19	-0.26	0.06	7	0	1.4	1						6	9	16	6.8	
GREAT FALLS	3662	889.6	1021.3	42	23	32.6	4.3	61	15	-11	24	0	22	19	60	0.51	-0.09	0.13	9	1	3.7	2	15.3	SW	41	SW	28+	3	9	19	7.3	45
HAVRE	2582	928.2		39	14	26.6	5.7	65	15	- 6	23	0	29			0.05	-0.42	0.04	2	0	T	T	9.4	SW	38	W	21	3	14	14	7.0	53
HELENA	3893	875.9	1023.2	38	20	29.2	5.0	53	21	-17	24	0	27	20	68	0.14	-0.39	0.07	4	0	1.5	1	7.2	WNW	42	W	21	5	9	17	7.0	63
KALISPELL	2965	915.9		37	26	31.2	8.7	47	6	- 3	24	0	20			0.81	-0.52	0.27	15	0	2.4	2	4.7					1	1	29	9.3	
MILES CITY				38	17	27.6		56	16	- 3	11	0	31			0.47		0.27	4	0	3.1	1	8.7	SE	30	WNW	21	6	11	14	6.3	
MISSOULA	3190	901.2	1024.6	36	25	30.3	6.8	48	21	- 7	25	0	28	25	81	0.86	-0.22	0.39	0		1.1	1	5.0	NW	34	W	28	10	2	0	8.7	22
NEBRASKA																																
GRAND ISLAND	1841	953.1		37	15	26.0	- 2.7	68	16	- 9	26+	0	28	17	73	0.68	0.12	0.36	7	0	6.3	4	10.5	NNW				14	1	16	5.7	
LINCOLN U	1150			38	21	29.2	- 1.4	68	16	- 8	12	0	27			0.50	-0.40	0.12	9	0	4.6	2	9.3	NW#	37	NW	8	13	3	15	5.7	51
NORFOLK	1544	963.3		36	15	25.4	0.2	71	16	-16	26	0	28			0.67	-0.06	0.25	8	0	7.9	4						11	5	15	5.9	
NORTH PLATTE	2779	918.3	1021.3	42	13	27.6	0.2	73	16	-14	25	0	30	15	65	0.66	0.26	0.46	5	0	6.1	4	9.6	NW	56	NW	22	11	8	12	5.4	63
OMAHA	978	980.2	1021.9	37	19	28.2	0.0	61	16	- 8	12	0	27	19	71	0.80	0.00	0.33	7	0	8.1	4	11.3	NNW	41	NW	8	11	5	15	5.9	53
OMAHA N OMAHA AP	1323	971.5		35	18	26.3	0.2	60	16+	-12	12	0	27			0.64	-0.25	0.31	9	0	5.9	4						10	7	14	6.0	
SCOTTSBLUFF	3950	881.0	1021.7	45	16	30.5	2.4	65	17	-11	25	0	31	17	64	0.40	0.00	0.26	5	0	5.2	4	10.9	NW	46*	NW	22	10	4	17	6.3	
VALENTINE	2587	926.5		42	13	27.2	2.1	65	16	-10	11	0	29			0.10	-0.24	0.04	4	0	1.8	1	9.9	W#	50	NW	22	10	8	13	5.7	70
NEVADA																																
ELKO	5075	850.0	1026.6	46	11	28.5	2.1	58	16	-12	26	0	31	14	62	0.12	-0.89	0.10	2	0	T	T	4.7	E	23*	S	16	16	7	8	4.2	
ELY	6257	812.4	1025.2	48	12	29.7	2.9	61	14	-12	26	0	31	11	55	T	-0.68	T	0	0	T	T	9.3	SSW	26	N	24	18	8	5	3.5	90
LAS VEGAS	2162	954.6	1022.2	58	33	45.9	0.8	70	8	19	27	0	13	22	43	0.24	-0.16	0.22	2	0	0.0	0	6.1	SW	32*	N	24	19	5	7	2.8	85
RENO	4404	867.3	1025.5	49	18	33.9	0.5	65	15	4	26	0	28	23	72	0.66	-0.48	0.47	4	0	T	T	3.9	S	38	SW	2	12	8	11	5.0	66
WINNEMUCCA	4299	873.1		48	16	31.9	2.1	58	16+	- 8	27+	0	28			0.26	-0.68	0.20	4	0	0.4	T	5.0	NE	34	SW	2	10	9	12	5.4	95
NEW HAMPSHIRE																																
CONCORD	339	1004.4	1015.5	34	11	22.6	- 2.4	61	1	- 9	31+	0	30	14	72	3.15	-0.10	1.80	9	0	12.7	10	6.6	NW	52	NW	30	14	5	12	5.0	61
MT WASHINGTON OBS	6262	793.2		15	- 2	6.7	- 2.1	37	4	-41	30	0	31		83	6.68	0.37	1.93	14	0	40.5	8	36.2	W	111Y	SE	6	9	5	17	6.2	46
NEW JERSEY																																
ATLANTIC CITY	58	1014.6	1017.8	41	24	32.3	- 4.3	61	1	4	31	0	25	22	68	3.84	0.62	1.35	8	1	5.1	4	11.0	NW	40*	NW	31	11	5	15	6.1	52
ATLANTIC CITY U	10			41	27	34.1	- 4.2	54	2+	8	31	0	23			2.79	-0.69	1.14	8				14.5		48*	NW	31+					

See footnotes at end of table

CLIMATOLOGICAL DATA
ENGLISH UNITS

State and Station	Elevation (ground)	Pressure		Temperature											Average relative humidity	Precipitation							Wind					No. of days (sunrise to sunset)			Sky cover, tenths (sunrise to sunset)	Possible sunshine
												No. of days							No. of days		Snow, Sleet				Fastest mile							
		Station Ø	Sea level	Average maximum	Average minimum	Average	Departure from normal	Highest	Date	Lowest	Date	Max. 90° F. or above	Min. 32° F. or below	Average dew point		Total	Departure from normal	Greatest in 24 hours	.01 inch or more	With thunderstorms	Total	Maximum depth on ground	Average speed	Prevailing direction	Speed	Direction	Date	Clear, 0-3	Partly cloudy, 4-7	Cloudy, 8-10		
NEW JERSEY	Ft.	Mb.	Mb.	°F.	°F.	°F.	°F.	°F.		°F.				°F.	%	In.	In.	In.			In.	In.	M.p.h.		M.p.h.							%
NEWARK	11	1016.3	1017.4	38	25	31.1	- 3.6	67	1	2	31+	0	23	20	65	2.39	-0.83	0.70	11	0	7.8	4	12.1	NNE	55*	NW	31	8	9	14	6.2	
TRENTON U	56	1009.8		37	24	30.5	- 4.7	66	1	1	31	0	25			2.83	-0.04	1.16	10	1	7.5	4	10.2	N#	48	NW	31	8	10	13	5.9	54
NEW MEXICO																																
ALBUQUERQUE	5310	851.3	1021.8	48	25	36.9	- 0.1	57	17+	15	31+	0	28	23	60	0.51	0.05	0.26	4	0	1.0	1	5.9	N	34	S	24	20	7	4	2.9	84
CLAYTON	4969	846.5		53	23	37.6	1.6	69	14+	- 2	26+	0	27			0.12	-0.23	0.06	2	0	0.8	1						17	7	7	3.7	
RATON	6379	806.4		49	16	32.8	1.6	65	16+	- 9	26	0	31			0.33	0.07	0.15	4	0	1.4	1						20	3	8	3.6	
ROSWELL	3619	894.4		55	25	40.2	2.7	72	17	11	30	0	26			0.15	-0.39	0.01	4	0	0.1	T	7.1		26	NW	28	16	7	8	3.9	62
SILVER CITY	5373	838.1		54	30	41.7		64	16+	19	29	0	23			1.55		0.78	7	0	0.4	T						19	4	8	3.5	
NEW YORK																																
ALBANY	277	1012.9	1016.4	32	14	23.0	- 3.5	54	1	-11	31+	0	30	15	71	2.24	-0.35	1.08	11	0	11.3	6	7.7	S	39	NW	30	8	5	18	6.7	54
BINGHAMTON	1590	952.6	1015.4	28	15	21.6	- 4.2	56	1	- 8	21	0	27	15	77	1.61	-0.95	0.66	13	0	21.7	12	11.4	WSW	44	W	31	3	6	22	8.0	33
BUFFALO	705	987.5	1016.6	32	18	25.1	- 2.1	60	4	- 4	31	0	27	17	73	2.77	-0.23	1.15	18	0	30.2	12	11.8	W	38	W	23	2	5	24	8.5	40
NEW YORK U	132	1004.7	1016.6	37	26	31.5	- 4.7	68	1	4	31	0	22	19	62	2.26	-1.00	0.73	10	0	4.5	3	10.7	W#	43	NW	31+	13	7	11	5.2	58
NEW YORK LA GUARDIA	19	1015.2	1015.2	37	26	31.2	- 5.2	63	1	3	31+	0	21	21	68	2.05	-1.34	0.62	11	0	3.5	2	13.7	NE	54	NW	31	8	9	14	6.2	
ROCHESTER	543	996.6	1016.6	34	18	26.0	- 2.7	62	4	- 3	30	0	29	19	76	1.58	-0.80	0.50	15	0	14.2	7	11.4	WSW	34*	N	30+	3	3	25	7.9	48
SCHENECTADY	217			34	17	25.1	- 1.6	56	1	-10	31+	0	28			2.20	-0.42	0.96	10	0	12.6	8						13	6	12	5.4	
SYRACUSE	417	993.2	1016.0	33	16	24.5	- 3.3	56	4+	- 8	21	0	29	17	74	2.25	-0.90	0.48	19	0	33.8	14	14.7	E	52	W	29	4	5	22	7.7	35
NORTH CAROLINA																																
ASHEVILLE U	2203	938.4		44	25	34.4	- 5.6	66	18+	- 6	13	0	23			1.66	-1.26	0.51	10	0	4.2	1	8.4	N#	34	NW	30+	13	7	11	5.4	60
CAPE HATTERAS R	7	1016.3	1017.0	51	38	44.7	- 3.5	64	19	19	13	0	8	35	73	8.63	4.05	2.97	11	0	T	T	12.4	NNE	45	NNE	1	12	4	15	5.5	
CHARLOTTE	735	990.5	1019.5	48	28	38.0	- 5.2	67	2	2	13	0	22	25	65	3.01	-0.61	1.04	10	0	T	T	7.8	NNE	25	NE	2	11	5	15	5.6	65
GREENSBORO	891	986.5	1019.4	45	27	36.0	- 3.9	66	1	0	13	0	23	24	66	4.94	1.81	2.70	8	0	0.8	1	9.0	SW	27	W	6	12	7	12	5.5	53
RALEIGH	433	1004.7	1018.8	48	29	38.0	- 3.9	68	2	4	13	0	21	26	66	2.21	-0.81	0.91	8	0	T	T	9.9	SSW	23*	NNW	30+	12	7	12	5.3	56
WILMINGTON	30	1015.9	1018.7	53	34	43.8	- 4.4	70	19	10	13	0	15	32	69	1.99	-1.43	1.37	6	0	T	T	11.7	NNW	39	N	2	11	7	13	5.6	59
WINSTON SALEM	967	983.1	1019.3	45	28	36.5	- 4.4	66	1	4	13	0	22	22	59	6.08	2.73	3.60	8	0	1.5	1	10.0	NE	30*	WNW	6	13	7	11	5.4	
NORTH DAKOTA																																
BISMARCK	1647	957.5	1020.8	32	9	20.2	3.4	59	16	-16	11	0	31	9	65	0.24	-0.12	0.08	8	0	2.6	1	9.7	NW	47	NW	22	8	7	16	6.8	46
DEVILS LAKE U	1471	963.8		24	4	14.2	1.9	50	16	-17	29+	0	30			0.74	0.25	0.30	11	0	8.6	4	8.9	NW#	40	N	22	5	8	18	7.1	49
FARGO	900	984.1	1020.4	26	7	16.6	2.7	57	16+	-14	12	0	30	9	73	0.30	-0.28	0.14	7	0	2.5	1	13.3	N	34	NW	28+	6	7	18	7.2	48
WILLISTON U	1899	949.5		32	11	21.4	3.7	54	16	-17	11	0	31			0.27	-0.23	0.08	9	0	2.6	1	10.2	NW#	49	N	22	6	12	13	6.5	52
OHIO																																
AKRON	1209	979.0	1018.6	32	17	24.4	- 5.1	64	2+	- 5	13+	0	29	17	77	2.44	0.17	0.76	14	0	24.3	12	10.0	W	23*	W	23	4	5	22	8.0	
CINCINNATI OBS	761			38	21	29.4	- 5.9	65	4	- 1	12	0	29			1.56	-1.21	0.66	9	0	2.1	1	6.7	W	25	W	6					47
CINCINNATI U	553	996.6		41	23	32.0	- 4.6	70	1	1	12	0	25			1.50	-1.34	0.66	8		3.1											
CLEVELAND	777	989.5	1018.3	34	18	25.9	- 3.5	63	3	- 3	13	0	29	18	71	3.05	0.71	1.06	17	0	30.3	19	11.2	SW	30	SW	23	4	1	26	8.5	24
COLUMBUS	812	988.8	1020.0	34	16	24.9	- 7.6	64	1	- 5	13	0	31	18	74	1.76	-0.58	0.71	11	0	9.5	5	9.1	W	38	W	7	6	7	18	7.3	41
COLUMBUS U	724			35	20	27.8	- 5.6	66	1	- 2	13	0	27			1.52	-0.72	0.68	10	0	5.4	3										
DAYTON	997	986.1	1019.8	35	18	26.1	- 5.2	65	2	- 4	13	0	29	18	74	0.59	-1.78	0.39	9	0	6.3	2	10.7	W	38	SW	7	8	6	17	6.7	36
MANSFIELD	1296			31	15	23.2	- 6.0	66	2	- 8	12	0	28			1.54	-1.11	0.47	12	0	18.0	12						7	5	19	7.2	
SANDUSKY U	606	995.6		33	19	25.6	- 6.1	60	4	- 4	13+	0	27			2.69	0.63	1.29	11		17.7	13	9.6		42	W	6	6	10	15	6.6	54
TOLEDO	676	992.6	1018.7	31	14	22.7	- 5.6	60	3+	-10	27	0	30	17	80	1.23	-0.72	0.56	13	0	13.2	7	9.7	WSW	39	SW	23	6	10	15	6.8	45
YOUNGSTOWN	1178	973.9	1018.1	31	16	23.5	- 6.9	61	3+	- 5	13+	0	29	16	75	1.99	-0.69	0.70	16	1	22.4	6	12.3	SW	30*	WSW	6	2	7	22	8.3	
OKLAHOMA																																
OKLAHOMA CITY	1280	977.6	1019.6	51	31	40.6	0.8	72	17	10	12	0	18	31	73	0.76	-0.65	0.55	5	0	1.2	1	12.3	SSE	34	SW	22	12	5	14	5.5	56
TULSA	676	997.1	1022.3	51	29	39.9	- 0.7	70	17	3	12	0	23	30	71	0.36	-1.26	0.11	7	0	1.0	1	10.3	SSE	33	NW	10	11	5	15	5.6	55
OREGON																																
ASTORIA	8	1019.3	1019.8	52	38	44.6	1.5	62	14	23	24	0	4	41	88	6.78	-6.87	1.47	17	0	0.0	0	7.7	ESE	38*	SSW	1	4	3	24	8.3	
BURNS U	4151	877.7		42	23	32.8	3.7	55	7+	8	26	0	28			1.02	-0.41	0.47	9	0	0.2	T						6	7	18	7.1	
EUGENE	361	1007.8		48	37	42.5	0.7	61	6	20	25	0	7			3.03	-3.58	1.71	13	0	0.0	0	4.9		23*	S	1	1	6	24	8.7	
MEACHAM	4050			37	27	32.3	2.5	50	8	10	25	0	25			2.12	-2.41	0.38	13	0	5.0	8						6	4	21	7.6	
MEDFORD	1298	974.3	1023.3	45	32	38.1	- 0.3	72	14	15	25	0	16	35	90	4.68	1.30	3.69	9	0	0.0	0	2.2	N	25*	SE	14	2	8	21	8.4	
PENDLETON	1482	968.5	1023.5	45	33	39.3	3.3	60	29	17	24	0	10	33	81	1.46	-0.03	0.49	11	0	T	T	6.7	SSE	25*	WNW	2	2	5	24	8.7	
PORTLAND	21	1015.9	1021.6	49	37	42.6	1.3	58	15	22	26+	0	8	37	82	2.59	-3.79	0.98	13	0	0.0	0	7.3	ESE	33	SE	14	3	4	24	8.2	25

See footnotes at end of table

CLIMATOLOGICAL DATA

ENGLISH UNITS

State and Station	Elevation (ground)	Pressure		Temperature												Precipitation							Wind					No of days (sunrise to sunset)				
												No of days							No of days		Snow, Sleet				Fastest mile							
		Station O	Sea level	Average maximum	Average minimum	Average	Departure from normal	Highest	Date	Lowest	Date	Max 90 F. or above	Min 32 F or below	Average dew point	Average relative humidity	Total	Departure from normal	Greatest in 24 hours	01 inch or more	With thunderstorms	Total	Maximum depth on ground	Average speed	Prevailing direction	Speed	Direction	Date	Clear 0 3	Partly cloudy, 4 7	Cloudy, 8-10	Sky cover, tenths (sunrise to sunset)	Possible sunshine
OREGON	Ft.	Mb.	Mb.	F.	F.	F.	F.	F.		F.				F.	%	In.	In.	In			In.	In.	M.p.h.		M p.h							%
PORTLAND	21	1015.9	1021.6	49	37	42.6	1.3	58	15	22	26+	0	8	37	82	2.59	-3.79	0.98	13	0	0.0	0	7.3	ESE	33	SE	14	3	4	24	8.2	25
PORTLAND U	30			50	40	45.4	2.3	60	15	28	26	0	4			2.86	-4.56	0.90	13		0.0	0										
ROSEBURG	505	1002.4		51	36	43.3	1.3	68	14	18	25	0	7			3.66	-2.03	1.83	10	0	0.0	0	2.8	N#	18	SE	14	2	8	21	8.2	29
SALEM	195	1014.6	1021.8	48	36	41.7	0.2	59	15	19	26	0	7	38	86	3.01	-4.36	1.32	13	0	0.0	0	6.1	S	23*	S	1	1	6	24	8.8	
SEXTON SUMMIT R	3836	852.4		49	37	42.9	5.6	61	7	19	24	0	8			4.92	0.16	3.02	7	0	0.2	T	12.5	ESE				12	8	11	5.2	
PACIFIC AREA																																
CANTON ISLAND	8	1009.1	1009.5	88	78	83.0	- 0.1	90	30+	76	27+	6	0	71	70	0.11	-2.43	0.07	4	0	0.0	0	12.9	NE	23*	NNE	11	12	13	6	4.7	
ENIWETOK	13	1009.5		86	77	81.5	- 0.3	87	14+	73	16	0	0			9.18	6.55	4.04	20	0	0.0	0	15.5									
TAGUAC GUAM R	361			84	74	78.6	- 0.1	86	2	61	12	0	0			13.08	6.97	4.34	23	0	0.0	0	10.1	NE	24	SE	7					
JOHNSTON	7	1013.5		81	74	77.4	- 0.7	86	9	71	27+	0	0			0.62	-2.38	0.22	10	0	0.0	0	13.5		32	E	1				4.8	77
KOROR R	94	1006.4	1008.9	87	76	81.3	0.4	90	22	73	13+	1	0	75	85	14.04	2.32	4.65	21	3	0.0	0	7.4	NE	24	E	31	0	1	30	9.7	52
MAJURO	10	1008.8	1009.1	85	76	80.7	0.2	87	26+	72	20	0	0	74	81	11.71	0.59	4.14	17	2	0.0	0	12.9	E	32	E	23	1	11	19	8.0	68
PONAPE R	123	1004.1	1008.5	88	74	81.0	0.8	91	10	70	17	4	0	75	84	13.60	-4.74	2.25	22	0	0.0	0	5.6	NE	32	E	2	0	3	28	9.3	51
TRUK MOEN ISLAND	5	1008.5	1008.8	86	76	81.1	0.3	88	17+	73	21+	0	0	75	82	11.04	-2.20	3.97	26	2	0.0	0	7.0	NNE	27	W	9	0	5	26	9.1	26
WAKE	11	1014.6	1014.9	83	74	78.2	- 0.7	85	9	68	26	0	0	69	74	2.44	0.62	1.14	12	0	0.0	0	14.7	ENE	30*	ENE	16+	15	12	4	4.1	
YAP R	55	1007.5	1008.4	84	75	79.9	- 1.1	87	3+	72	28	0	0	75	85	15.01	4.85	2.80	25	2	0.0	0	10.4	NE	33	NE	4	0	0	31	9.8	64
PENNSYLVANIA																																
ALLENTOWN	376	1003.1	1017.9	35	18	26.3	- 5.0	64	1	- 2	31	0	29	18	72	2.62	-0.65	0.86	9	0	13.9	7	11.6	WSW	51*	WNW	31	11	5	15	5.9	
ERIE	732	990.2	1017.2	34	20	26.9	- 3.8	63	4	- 1	13	0	25	20	76	4.28	1.67	1.27	15	0	30.5	19	16.8	SW	32*	SSW	23+	4	1	26	8.6	
HARRISBURG	335	1004.1	1018.2	36	20	28.2	- 5.3	61	1	5	31	0	30	18	68	3.32	0.41	1.90	8	0	16.6	8	9.3	NW	35	NW	31	7	7	17	6.7	45
PHILADELPHIA	5	1013.2	1017.6	39	23	31.0	- 2.9	66	1	3	31	0	26	18	61	2.11	-0.83	0.99	8	1	9.5	3	11.2	WSW	36	NW	30+	10	5	16	6.3	52
PHILADELPHIA U	35			39	27	32.6	- 4.8	65	1	4	31	0	22																			
PITTSBURGH	1151	987.8	1019.2	32	17	24.1	- 6.6	62	4	- 5	13+	0	30	18	77	1.83	-0.57	0.42	16	0	11.9	5	9.8	WSW	32	WSW	7+	4	4	23	8.1	49
PITTSBURGH U	749			36	21	28.5	- 6.5	64	4+	1	13	0	29			2.24	-0.30	0.63	14		11.8											25
READING U	266	1005.1		37	22	29.5	- 5.2	67	1	3	31	0	28			3.31	0.17	1.68	9	0	12.6	6	10.6	W#	65	NW	31	9	7	15	6.1	46
SCRANTON	940	982.1	1017.5	32	17	24.0	- 4.9	56	3	- 4	31	0	30	16	72	2.20	-0.27	1.19	14	0	12.9	5	9.2	SW	45	W	30	5	7	19	7.3	39
WILLIAMSPORT	527	998.3	1018.1	33	16	24.7	- 5.7	56	1	- 1	31+	0	30	16	71	2.87	-0.17	1.72	14	0	17.7	6	9.6	W	41*	NNW	30	5	7	19	7.3	
RHODE ISLAND																																
BLOCK ISLAND	110	1010.8		38	24	31.0	- 4.9	62	1	- 4	31+	0	22			3.30	-0.29	1.30	14	0	7.2	2						8	8	15	6.5	
PROVIDENCE	55	1009.5	1015.9	38	20	28.6	- 3.4	65	1	- 5	31+	0	27	19	68	2.63	-0.99	0.99	13	0	6.6	4	11.6	NW	46*	NNW	30	11	9	11	5.2	55
SOUTH CAROLINA																																
CHARLESTON	41	1017.6	1019.5	57	34	45.6	- 4.4	75	20	8	13	0	11	34	69	1.46	-1.39	0.70	9	0	T	T	9.3	NNW	48Y	W	6	11	8	12	5.1	63
CHARLESTON U	9			56	40	47.5	- 4.2	72	20	14	13	0	7			0.99	-1.75	0.46	10	0	T	T	10.8		35	W	6					
COLUMBIA	217	1007.1	1020.2	55	32	43.7	- 2.7	73	2	6	13	0	17	29	64	2.27	-1.25	1.10	8	0	0.0	0	8.7	N	29*	W	6	13	6	12	4.8	63
FLORENCE	146	1013.5	1019.2	53	33	43.1	- 4.1	71	19+	8	13	0	16	29	62	1.81	-1.25	0.92	8	0	0.0	0	9.3	NNE	23*	WSW	9	14	4	13	5.1	
GNVLE SPARTANBURG	957	981.7	1019.5	52	32	41.6		71	2	6	13	0	15	27	61	3.38		1.19	8	0	1.0	1	8.2	NE	29	NW	30	12	3	16	5.5	66
SOUTH DAKOTA																																
HURON	1282	971.9	1021.4	33	9	21.3	1.0	60	16+	-18	12	0	30	11	66	0.23	-0.33	0.08	7	0	3.0	1	11.1	NW	42	NW	8	5	10	16	6.6	50
RAPID CITY	3165	902.9	1020.8	43	18	30.1	2.9	63	16	- 5	11	0	28	17	62	0.19	-0.11	0.10	5	0	1.6	1	10.4	NW	45	NW	22	7	8	16	6.6	55
SIOUX FALLS	1420	967.1	1021.1	33	12	22.7	1.6	61	1	-14	12	0	28	14	70	0.19	-0.55	0.14	4	0	1.7	1	10.4	NW	35*	NW	22	6	7	18	6.7	
TENNESSEE																																
BRISTOL	1507	964.1	1020.1	42	25	33.0	- 5.3	65	3+	- 9	13	0	23	24	70	4.35	1.14	0.98	12	0	11.2	5	5.9	WSW	25*	W	9+	7	7	17	6.7	
CHATTANOOGA	670	993.2	1021.6	47	27	37.1	- 4.9	67	4+	- 2	13	0	22	26	68	3.28	-1.91	1.17	9	0	T	T	7.2	NNW	32	NW	11	7	5	19	6.8	47
KNOXVILLE	950	984.8	1021.3	46	28	37.0	- 4.1	66	18	- 2	13	0	20	28	72	3.67	-0.56	1.10	10	0	6.9	3	8.1	SW	40	SW	9	5	8	18	6.9	33
MEMPHIS	263	1007.1	1022.4	50	30	39.9	- 3.6	71	2+	4	12	0	19	30	71	1.35	-3.58	0.58	8	0	3.0	3	8.6	S	26	W	5	11	7	13	5.5	56
MEMPHIS U	271			48	34	41.1	- 3.0	71	2	4	12	0	14			1.21	-3.48	0.46	8	0	3.4	3										
NASHVILLE	577	1001.0	1021.4	46	25	35.0	- 6.4	69	1	- 7	13	0	24	28	77	1.92	-2.27	0.72	8	0	8.2	5	7.2	S	29*	NW	8	7	9	15	6.6	50
OAK RIDGE	905	987.1		44	25	34.4	- 5.7	66	1	- 3	13	0	24			3.31	-2.59	0.94	10	0	6.9		4.1		26Y		6	9	7	15	6.0	
TEXAS																																
ABILENE	1759	958.5	1021.3	58	35	46.6	0.5	78	17	18	12	0	12	34	68	0.77	-0.49	0.35	6	1	T	T	8.9	SSW	28	N	22+	13	5	13	5.2	58
AMARILLO	3607	891.3	1019.9	54	28	40.9	2.1	73	17	8	26	0	22	26	65	0.64	-0.13	0.47	3	0	0.8	T	12.1	WSW	43	NE	4	17	5	9	3.8	75
AUSTIN	597	999.6	1022.1	61	41	51.0	- 1.7	80	15	23	12	0	3	39	69	3.47	0.94	1.43	8	2	0.0	0	8.6	NNE	34	N	11	9	4	18	6.4	49
BROWNSVILLE	16	1019.6	1020.6	70	52	60.8	- 2.1	85	4	40	12	0	0	52	78	1.84	0.12	1.40	11	0	0.0	0	10.8	NW	32	N	11	3	5	23	7.9	27

See footnotes at end of table

CLIMATOLOGICAL DATA

ENGLISH UNITS

State and Station	Elevation (ground)	Pressure		Temperature								No. of days		Average dew point	Average relative humidity	Precipitation			No. of days		Snow, Sleet		Wind		Fastest mile			No. of days (sunrise to sunset)			Sky cover, tenths (sunrise to sunset)	Possible sunshine
		Station Ø	Sea level	Average maximum	Average minimum	Average	Departure from normal	Highest	Date	Lowest	Date	Max. 90 F. or above	Min. 32 F. or below			Total	Departure from normal	Greatest in 24 hours	.01 inch or more	With thunderstorms	Total	Maximum depth on ground	Average speed	Prevailing direction	Speed	Direction	Date	Clear, 0-3	Partly cloudy, 4-7	Cloudy, 8-10		
TEXAS	Ft.	Mb.	Mb.	F.	F.	F.	F.	F.		F.				F.	%	In.	In.	In.			In.	In.	M.p.h.		M.p.h.							%
CORPUS CHRISTI	43	1020.4	1021.5	65	48	56.4	- 2.8	80	3	31	12	0	1	48	78	2.66	0.58	1.83	8	1	0.0	0	11.0	NNE	34	NE	26	4	5	22	8.0	30
DALLAS	481	1003.4	1022.6	57	38	47.9	- 0.2	72	17	19	12	0	6	36	70	1.29	-1.38	0.54	5	1	T	T	10.9	S	29	N	11	14	5	12	5.0	60
DEL RIO U	957			62	43	52.3	- 0.9	77	16	32	14	0	1			0.31	-0.51	0.13	7	0												
EL PASO	3918	889.3	1019.5	57	34	45.2	0.1	64	16+	23	29	0	15	30	59	0.30	-0.19	0.21	4	1	0.0	0	5.9	NE	35	SW	24	16	7	8	3.8	77
FORT WORTH	544	1001.0	1022.5	57	37	47.2	- 0.5	72	17	19	12	0	10	37	73	0.99	-1.36	0.40	6	1	T	T	11.2	S	31*	NNE	11	15	4	12	5.1	
GALVESTON U	7			60	50	54.8	- 2.4	71	4	29	12	0	1			6.03	2.14	1.98	13	0	0.0	0	11.8		42	NE	24					48
GALVESTON	5	1019.4	1021.9	60	50	54.5	- 2.3	71	4	29	12	0	2	47	79	5.27	0.85	1.59	11	1	0.0	0	10.6	N				4	6	21	7.2	
HOUSTON U	41			62	49	55.4	- 1.1	77	20+	28	13	0	2			4.68	0.58	2.24	12	0												
HOUSTON	50	1018.9	1021.6	64	46	54.8	- 1.4	80	20	26	13	0	2	47	80	4.78	0.42	2.64	9	1	0.0	0	9.3	N				4	6	21	7.5	51
LAREDO	500	1005.8	1021.4	67	47	56.9	- 2.3	85	16	35	12	0	0	43	66	0.86	-0.31	0.39	8	0	0.0	0	9.0	NNW	27*	NE	11	5	4	22	7.8	
LUBBOCK	3243	906.4	1020.7	55	29	42.4	1.4	76	17	18	26+	0	21	29	66	0.67	0.02	0.47	5	1	1.4	1	12.1	WSW	37*	N	4	17	7	7	3.7	
MIDLAND	2854	919.0	1019.7	57	34	45.6	- 0.3	77	17	18	12	0	15	31	65	0.58	-0.08	0.34	4	2	0.7	1	9.2	SSW	29*	SW	19	13	8	10	4.8	
PORT ARTHUR	16	1019.9	1021.5	62	43	52.3	- 2.0	77	4	20	13	0	3	45	80	4.11	-0.98	1.92	8	1	0.0	0	9.0	N	34	NE	24	5	8	18	6.9	42
SAN ANGELO	1903	952.5	1021.1	60	36	47.8	- 0.9	80	17	18	12	0	15	34	65	0.46	-0.39	0.21	5	1	0.0	0	7.3	S	23*	N	11	12	6	13	5.5	
SAN ANTONIO	792	996.0	1021.5	62	42	52.2	- 1.5	78	4	28	12	0	1	41	71	2.29	0.54	1.20	8	2	0.0	0	8.7	N	30	NE	11	8	4	19	6.6	48
VICTORIA	104	1016.8		64	46	54.9	- 2.3	78	19	29	12	0	1			2.42	-0.19	1.42	8	1	0.0	0	12.4		39*		26	6	5	20	7.4	
WACO	500	1000.7	1022.4	59	39	49.1	- 1.2	74	3	22	13+	0	6	39	73	1.34	-1.40	0.58	7	1	0.0	0	12.4	SSE	36	N	11	13	5	13	5.1	
WICHITA FALLS	994	983.7	1021.6	57	35	46.1	2.0	77	19	21	12	0	14	33	67	1.23	-0.22	0.75	7	1	0.6	T	7.8	S	25*	NNE	22	13	7	11	5.2	
UTAH																																
MILFORD	5028	849.0		45	10	27.4	- 0.8	59	16	-19	26	0	30			0.44	-0.27	0.19	4	0	1.5	2						19	7	5	3.0	
SALT LAKE CITY	4220	874.1	1027.9	38	19	28.4	- 3.2	54	2	5	25	0	30	22	81	0.28	-0.96	0.12	3	0	0.9	1	5.8	SSE	26	S	2	7	9	15	6.5	46
WENDOVER	4237	877.0		35	18	26.5	- 3.3	55	3	2	26	0	31			T	-0.29	T	0	0	T	T						14	12	5	4.4	
VERMONT																																
BURLINGTON	331	1000.3	1015.6	30	10	20.1	- 2.9	55	4	-13	21	0	30	13	73	1.74	-0.39	0.64	13	0	16.8	9	9.2	S	37	N	31	3	6	22	8.1	37
VIRGINIA																																
LYNCHBURG	947	993.2		43	25	33.8	- 4.7	66	1	3	13	0	26			2.57	-0.57	0.73	8	0	7.0	4	9.5		34	W	7	10	8	13	5.5	56
NORFOLK	26	1016.9	1018.4	44	30	37.2	- 5.3	60	19	14	13	0	24	27	70	3.80	1.06	0.93	9	0	4.5	4	14.1	NNE	45	W	9	11	8	12	5.5	56
RICHMOND	162	1012.5	1018.8	45	27	36.1	- 3.6	67	2	9	13	0	25	22	60	2.64	-0.33	1.00	7	0	8.1	3	8.5	NNE	38	N	30	12	5	14	5.6	51
ROANOKE	1174	975.6	1019.3	42	24	33.3	- 5.1	63	1	2	13	0	26	21	61	3.35	0.37	0.85	10	0	14.4	4	10.8	WSW	31*	WSW	7	10	9	12	5.7	
WASHINGTON																																
OLYMPIA	190	1008.8	1021.2	47	35	41.2	0.5	58	7	15	24	0	10	38	88	5.81	-3.24	1.19	16	0	T	T	6.2	SW	30*	WSW	15	0	2	29	9.4	
SEATTLE	400	1006.4	1020.5	47	38	42.3	1.5	57	15	22	24	0	8	37	83	5.22	-1.07	1.62	17	1	T	T	8.9	SE	30*	SSW	27	1	4	26	8.8	
SEATTLE U	14			49	42	45.5	1.7	56	15+	28	26	0	3			3.83	-1.59	1.27	16		0.0	0		SSE	40	SW	27					20
SPOKANE	2356	952.6	1022.8	37	29	33.1	3.5	46	15	10	25	0	19	30	88	1.44	-0.99	0.42	14	0	0.5	1	8.4	SSW	26	SW	30+	1	3	27	9.3	15
STAMPEDE PASS R	3958	881.5		34	27	30.3	3.3	47	8	11	25	0	28			9.44	-6.75	1.83	17	0	44.4	54						2	3	26	9.1	
TATOOSH ISLAND	101	1015.6	1018.6	50	42	46.2	1.8	61	14	34	25+	0	0	42	83	12.92	0.76	2.39	22	0	0.0	0	19.4	ENE	68	S	5	3	2	26	8.7	25
WALLA WALLA U	949	986.1		46	35	40.6	2.8	60	29+	20	25	0	10			2.40	0.55	1.10	12	0	T	T	3.5	W	25	SSE	29	0	2	29	9.7	6
YAKIMA	1061	983.4	1023.5	43	29	35.9	4.4	52	21+	14	26+	0	20	31	86	0.47	-0.65	0.23	9	0	0.5	T	4.2	WNW	25*	NNE	23	2	4	25	8.7	
WEST INDIES																																
SAN JUAN P.R.	15	1013.2	1015.9	85	70	77.3	1.1	89	6	66	30	0	0	69	78	4.11	-1.34	1.82	16	0	0.0	0	6.9	ENE	24	E	27	8	16	7	5.9	67
SWAN ISLAND	28	1015.2		82	74	78.1	- 0.3	84	29	70	31	0	0			0.89	-3.71	0.46	6	0	0.0	0						13	14	4	4.6	
WEST VIRGINIA																																
CHARLESTON	939	983.4	1020.1	39	22	30.8	- 6.8	66	3	0	13+	0	27	22	73	3.46	0.21	0.89	16	0	18.6	7	6.3	SW	22*	WSW	6	5	6	20	7.5	
ELKINS	1970	947.2	1018.9	38	18	27.6		66	3+	-11	13	0	31	20	77	3.90		0.95	17	0	34.5	14	7.7	WSW	30*	NW	30	4	6	21	7.8	
HUNTINGTON U	827	989.2	1020.4	39	22	30.4		63	1	- 4	12	0	28	25	82	2.97	-0.02	1.20	14	0	7.2	4	6.9	WSW	23	W	9	5	6	20	7.3	
WISCONSIN																																
GREEN BAY	682	994.7	1018.3	29	11	20.2	- 1.3	61	3	-19	26	0	27	14	76	1.03	-0.15	0.38	9	0	7.8	5	8.3	WNW	30	NW	23	6	8	17	6.8	39
LA CROSSE	652	994.6		29	14	21.5	- 0.3	60	3+	-17	26	0	28	13	61	0.30	-0.85	0.15	7	0	4.7	4	12.3	S	31*	W	22	5	9	17	6.8	
MADISON	858	982.6	1019.6	29	12	20.4	- 2.2	61	2	-22	26	0	30	14	75	0.90	-0.41	0.51	7	0	6.4	5	9.7	NW	27	W	22	6	8	17	6.8	33
MILWAUKEE	672	993.2	1019.3	29	14	21.5	- 3.1	62	2	-14	26	0	29	14	72	0.55	-1.08	0.20	8	0	6.5	3	11.9	WNW	30	W	22	6	5	20	7.2	37
WYOMING																																
CASPER	5319	838.5	1021.1	41	20	30.4	3.1	58	16	-13	25+	0	27	15	57	0.23	-0.25	0.09	5	0	3.2	2	13.7	SW	35*	SW	2	7	9	15	6.6	

See footnotes at end of table

CLIMATOLOGICAL DATA

ENGLISH UNITS

DECEMBER 1962

State and Station	Elevation (ground)	Pressure		Temperature												Precipitation							Wind					No. of days (sunrise to sunset)				
												No. of days							No. of days		Snow, Sleet				Fastest mile							
		Station Ø	Sea level	Average maximum	Average minimum	Average	Departure from normal	Highest	Date	Lowest	Date	Max. 90 F. or above	Min. 32 °F. or below	Average dew point	Average relative humidity	Total	Departure from normal	Greatest in 24 hours	.01 inch or more	With thunderstorms	Total	Maximum depth on ground	Average speed	Prevailing direction	Speed	Direction	Date	Clear, 0-3	Partly cloudy, 4-7	Cloudy, 8-10	Sky cover, tenths (sunrise to sunset)	Possible sunshine
WYOMING	Ft.	Mb.	Mb.	°F.	°F.	°F.	°F.	°F.		°F.				°F.	%	In.	In.	In.			In.	In.	M.p.h.		M.p.h.							%
CHEYENNE	6126	813.4	1020.6	44	19	31.5	1.5	66	16	-10	25	0	30	15	56	0.25	-0.20	0.18	5	0	3.5	3	14.8	NNW	48	W	28	8	10	13	5.8	70
LANDER	5563	836.8	1022.2	41	14	27.9	4.8	56	7	-13	25	0	31	14	61	0.22	-0.20	0.18	3	0	4.5	4	5.0	W	65	SW	3	14	6	11	5.0	74
SHERIDAN	3942	886.6	1021.9	43	18	30.2	3.9	59	16+	- 9	24	0	31	19	70	0.53	-0.09	0.34	7	0	6.8	4	7.2	NW	56	NW	21	9	9	13	6.0	58

Data from airport unless otherwise specified. U indicates Urban, R indicates Rural, sites.

* Data entered in column "Fastest Mile" is the fastest mile observed. This station is not equipped with automatic wind recording instrument.

A Maximum hourly average.

+ And also on an earlier date or dates.

Ø Station pressures apply to elevations shown in the "Elevations - Station Pressure" table of the annual issue of this publication.

B Number of days maximum 70°F. or above for Alaskan Stations.

# Wind direction to 8 compass points only.

Y Peak Gust.

Z Sun continuously below horizon.

CLIMATOLOGICAL DATA

METRIC UNITS

State and Station	Elevation (ground)	Pressure		Temperature											Average relative humidity	Precipitation							Wind					No. of days (sunrise to sunset)			Sky cover, tenths (sunrise to sunset)	Possible sunshine
												No. of days							No. of days		Snow, Sleet				Fastest mile (1.6 kilometers)							
		Station Ø	Sea level	Average maximum	Average minimum	Average	Departure from normal	Highest	Date	Lowest	Date	Max. 32.2 °C or above	Min. 0 °C or lower	Average dew point		Total	Departure from normal	Greatest in 24 hours	.25 mm. or more	With thunderstorms	Total	Maximum depth on ground	Average speed	Prevailing direction	Speed	Direction	Date	Clear, 0-3	Partly cloudy, 4-7	Cloudy, 8-10		
	M.	Mb.	Mb.	°C.	°C.	C.	°C.	°C.		°C.				°C.	%	Mm.	Mm.	Mm.			Mm.	Mm.	M.p.s.		M.p.s.							%
ALABAMA																																
BIRMINGHAM	186	995.9	1021.9	11.7	0.0	5.9	-1.8	23.3	2+	-17.2	13	0	14	0.6	74	65	-63	21	10	1	T	T	3.8	NNW	13.9	NW	6	8	9	14	6.2	47
HUNTSVILLE	184	998.0	1021.9	9.4	-2.2	3.7	-2.8	21.7	2	-17.8	13	0	17	-1.7	70	85	-40	35	9	0	84	25	4.0	WNW	17.4*	ESE	24	9	6	16	6.7	
MOBILE	64	1019.0	1021.3	15.6	5.0	10.3	-1.4	23.3	4	-12.2	13	0	6	3.9	69	115	-23	60	14	0	0	0	3.4	NE	10.3*	NNW	12	12	4	15	5.8	
MONTGOMERY	59	1013.2	1021.7	13.3	0.6	7.1	-1.9	22.8	20	-15.0	13	0	12	-0.6	64	46	-76	17	11	0	T	T	3.8	N	13.4	NW	29	13	6	12	5.3	52
ALASKA												B															B					
ANCHORAGE	27	1004.1	1009.3	-5.0	-12.2	-8.6	1.3	8.3	24	-28.3	7	0	31	-12.8	72	27	3	17	9	0	124	76	2.7	N	16.1*	N	9	11	3	17	6.3	37
ANNETTE	34	1007.5		6.7	1.7	4.2	2.0	16.7	12	-8.3	31	0	11	0.6	79	400	92	105	24	0	198	127	4.6	ESE	15.6	SSE	4	1	7	23	8.8	
BARROW	7	1021.0	1021.6	-18.9	-26.1	-22.7	1.3	-3.3	23	-37.8	6	0	31	-27.2	64	2	-3	1	3	0	20	229	4.8	NE	15.6*	W	25+	Z	Z	Z		
BARTER ISLAND	12	1019.3	1021.3	-16.7	-23.9	-20.3	3.2	-2.8	24+	-35.0	8	0	31	-25.6	62	9	2	2	9	0	91	254	6.7	W	22.8*	W	30	Z	Z	Z		
BETHEL	38	1011.9	1013.1	-12.8	-20.0	-16.2	-1.1	2.8	22	-31.7	5+	0	31	-22.8	58	16	-10	11	10	0	170	76	5.9	NNE	19.2*	NNE	9	14	2	15	5.2	
COLD BAY	29	1003.1	1007.1	0.6	-3.9	-1.5	0.6	6.7	26	-11.1	30	0	28	-3.9	84	26	-40	9	14	0	170	127	7.2	NNW	20.6*	SSE	20	4	4	23	8.1	
CORDOVA	12	1005.4	1007.1	1.1	-7.2	-2.9	0.6	10.0	12+	-21.7	7	0	26	-5.6	81	138	-35	33	17	0	218	178	2.5	ESE	10.3*	ESE	24	6	4	21	7.4	
FAIRBANKS	133	999.3	1017.7	-16.7	-26.1	-21.4	0.7	-2.2	24	-40.6	8	0	31	-24.4	75	14	1	7	7	0	152	152	1.5	N	6.3*	WSW	26+	9	5	17	6.5	
JUNEAU	5	1010.5	1011.3	0.6	-4.4	-2.1	-0.1	7.2	13	-17.8	31+	0	24	-5.0	80	207	100	60	19	0	1049	1016	3.1	ESE	13.0*	ESE	13	6	1	24	8.1	24
KING SALMON	13	1006.1	1008.3	-7.2	-14.4	-10.9	-0.4	8.9	22	-28.9	5+	0	27	-13.9	77	19	-7	11	8	0	198	102	5.2	N	19.7*	E	22	11	4	16	6.0	
KOTZEBUE	3	1018.3	1018.9	-15.6	-23.3	-19.3	0.5	-2.8	25+	-35.0	6	0	31	-22.2	78	8		3	7	0	168	203	3.9	ENE	17.0*	E	21	11	4	16	6.2	
MC GRATH	102	1002.7		-16.7	-26.1	-21.6	0.1	-0.6	24	-46.1	7	0	31			8	-18	3	8	0	386	457	1.0	N	7.6*	N	24	10	5	16	6.0	
NOME	4	1016.6	1017.4	-12.8	-22.2	-17.3	-3.0	-1.1	23+	-31.7	31	0	31	-20.6	76	11	-14	7	7	0	302	254	3.1	N	17.4*	NE	9	12	7	11	5.2	39
ST. PAUL ISLAND	7	1010.2	1011.4	0.0	-5.6	-2.7	0.4	5.0	20	-10.6	30	0	30	-5.0	80	31	-15	19	9	0	302	330	9.9	ENE	23.7*	N	10+	7	5	19	7.2	
SHEMYA	37	1003.7	1007.3	3.3	-0.6	1.4	1.7	5.0	29+	-5.0	19	0	19	-1.1	84	87	33	28	22	0	188	102	10.0	E	22.8	SSW	16	1	8	22	8.5	
YAKUTAT	9	1006.8	1008.0	1.7	-3.3	-0.9	1.2	6.7	13+	-15.6	31	0	24	-3.9	82	346	35	69	22	0	1080	1270	3.9	E	14.3*	ENE	29+	3	5	23	8.4	
ARIZONA																																
FLAGSTAFF	2131	792.1	1022.8	8.3	-8.9	-0.2	0.4	15.6	15	-22.2	25	0	31	-7.2	65	22	-20	10	4	0	97	76	2.8	NE	11.2*	NE	21	21	2	8	3.2	
PHOENIX	338	978.7	1018.3	20.6	5.0	12.8	1.3	26.7	9	0.6	29	0	0	0.0	48	12	-9	8	4	0	0	0	2.1	ESE	10.3*	WSW	24	19	4	8	3.4	83
PRESCOTT	1528	849.3	1021.1	13.3	-2.8	5.2	1.2	19.4	8	-11.1	25	0	26	-3.9	59	11	-14	9	3	0	T	T	3.1	S	17.4	SW	24	17	8	6	3.2	80
TUCSON	788	928.2	1017.6	18.3	6.1	12.2	1.4	24.4	16	1.7	29+	0	0	2.2	58	24		15	7	1	0	0	3.8	SE	13.4	W	27	17	6	8	4.0	79
WINSLOW	1487	855.7	1025.0	9.4	-6.1	1.7	1.1	13.9	23	-12.2	31	0	30	-5.0	69	1	-12	1	2	0	T	T	2.2	SW	11.6*	WSW	24	20	3	8	3.3	
YUMA	61	1013.5	1018.7	23.3	7.8	15.4	1.0	28.9	9+	1.7	28	0	0	0.0	42	9	1	9	3	0	0	0	3.2	N	9.4	N	25	20	4	7	1.9	86
ARKANSAS																																
FORT SMITH	137	1005.0	1022.6	11.7	0.0	5.6	-0.1	21.1	18	-13.9	12	0	19	-0.6	71	20	-51	9	4	0	T	T	3.4	ENE	12.5	W	5	11	6	14	5.7	55
LITTLE ROCK	78	1008.9	1022.6	11.7	-0.6	5.4	-0.1	21.7	2	-13.3	12	0	20	-1.1	69	42	-62	20	7	1	38	T	3.4	WSW	14.8	W	15	13	3	15	5.5	54
TEXARKANA	110		1022.5	12.8	2.8	7.8	-0.5	22.2	2	-9.4	12	0	9	2.8	76	29	-86	10	8	1	T	T	3.6	NW								
CALIFORNIA																																
BAKERSFIELD	151	1003.4	1021.6	16.7	2.8	9.7	0.4	24.4	15	-6.1	26	0	9	2.8	67	T	-25	T	0	0	0	0	2.5	NW	10.3*	SE	25	14	7	10	5.0	
BISHOP	1252	878.4		16.1	-6.1	4.8	0.7	23.3	6	-16.1	26	0	29			0	-30	0	0	0	0	0						21	4	6	2.7	
BLUE CANYON	1609	941.9		11.7	3.9	7.7	3.4	20.6	7	-6.1	24	0	6			222	-38	107	8	0	0	0	3.6	ENE	19.2	ENE	24	16	5	10	4.3	
BURBANK	213	991.5	1018.9	20.0	6.7	13.4	0.3	26.7	5	0.0	28	0	1	3.3	59	T	-69	T	1	0	0	0	2.1	ESE	7.6*	NE	26	16	7	8	4.3	
EUREKA U	13	1018.3		13.3	6.7	9.8	0.4	21.1	14	0.0	24	0	1			66	-105	37	7	0	0	0	2.5	S#	15.6	SW	2	9	3	19	6.7	47
FRESNO	99	1008.5	1020.7	15.0	2.2	8.6	0.6	22.8	14	-5.0	27+	0	9	4.4	81	12	-38	10	5	0	0	0	2.0	NW	6.7	NW	17	1	9	[illegible]	[illegible]	58
LONG BEACH	10	1018.0	1019.4	20.0	8.9	14.4	1.6	27.8	4	0.0	28	0	1	7.8	74	T	-50	T	1	0	0	0	2.3	WNW	10.3*	ENE	25	7	12	12	5.9	
LOS ANGELES	30	1015.6	1019.5	17.8	9.4	13.7	0.4	23.3	5	2.2	27	0	0	7.8	74	T	-60	T	1	0	0	0	2.7	W	7.2*	W	[illegible]	8	13	10	5.5	
LOS ANGELES U	95			18.9	9.4	14.1	-0.4	25.6	4	5.0	27	0	0		62	T	-73	T	0	0	0	0	2.3	W#	[illegible]	SE	16	17	8	6	3.6	[illegible]
MT SHASTA [illegible]	1080	896.5		9.4	-1.1	4.2	2.1	17.8	11	-11.1	25	0	22			92	-66	36	8	0	T	T						16	5	10	4.6	
OAKLAND	1	1020.3	1020.8	13.3	6.1	9.7	0.0	17.2	15+	0.0	28+	0	2	6.1	82	63	-28	28	10	0	0	0	2.4	E	11.2*	SSE	15	10	7	14	5.8	
POINT ARGUELLO	112	1005.4		17.2	6.1	11.7	-0.5	26.1	5	-3.3	27	0	5			18	-35	18	3	0	0	0	2.8		11.6*	SE	16	12	9	10	4.9	
RED BLUFF	104	1008.1	1021.1	15.6	3.9	9.4	1.1	22.2	9+	-3.9	27	0	6	3.3	75	92	-15	49	8	0	0	0	3.4	NW	17.4	SE	[illegible]	[illegible]	5	[illegible]	4.5	[illegible]
SACRAMENTO	5	1020.7	1021.6	11.1	4.4	7.8	-0.8	16.7	18+	-4.4	29	0	8	5.6	90	47	-36	22	4	0	0	0	1.3	NNW	13.4	NW	24	7	4	20	7.2	34
SACRAMENTO [illegible]	69			12.2	5.0	8.6	-0.2	17.2	14	-2.2	30	0	7			44	-46	21	4		0	0										
SANDBERG R	1377	865.6		11.7	4.4	7.9	2.0	18.3	14	-6.7	26	0	4			T	-63	T	0	0	0	0	[illegible]	ENE	15.6*	N	[illegible]	21	5	5	2.8	
SAN DIEGO	4	1015.2	1018.6	18.3	8.9	13.6	-0.7	25.0	4	4.4	31+	0	0	7.8	73	6	-46	5	2	0	0	0	2.5	NE	9.0	NW	15+	12	10	9	[illegible]	[illegible]
SAN FRANCISCO	2	1020.3	1021.2	13.3	6.7	9.8	-0.3	17.8	14+	-0.6	25	0	1	7.2	85	75	-28	27	7	0	0	0	2.5	S	13.4	ENE	24	10	7	14	[illegible]	
SAN FRANCISCO	16			14.4	8.9	11.6	0.2	18.3	14+	5.0	27	0	0			71	-37	21	8	0	0	0	2.5	NW#	7.6	SW	2					[illegible]
SANTA MARIA	73	1011.2	1019.5	18.9	4.4	11.7	0.3	27.2	4	-4.4	26	0	6	6.1	75	7	-50	6	3	0	0	0	2.1	WNW	12.5*	E	16	15	9	7	4.1	
COLORADO																																
ALAMOSA	2297	772.0		6.7	-14.4	-3.8	3.3	12.2	15	-27.2	27	0	31			4	-3	2	3	[illegible]	41	25						21	4	6	[illegible]	
COLORADO SPRINGS	1882	812.4	1022.6	8.9	-5.0	1.9	2.1	17.2	6	-17.2	26	0	27	-10.6	47	1	-5	1	2	[illegible]	13	T	4.0	NE	[illegible]	NNW	[illegible]	17	[illegible]	4	4.6	
DENVER	1610	848.8	1020.7	9.4	-7.2	1.0	0.4	19.4	17	-22.2	25	0	31	-9.4	54	4	-8	3	4	[illegible]	30	15	4.4	[illegible]	16.5	NW	6	[illegible]	7	11	5.1	73
GRAND JUNCTION	1478	864.9	1026.5	5.0	-8.3	-1.5	0.1	11.7	9+	-24.4	26	0	30	-8.9	63	9	-5	7	3	[illegible]	[illegible]	[illegible]	1.5	[illegible]	[illegible]	[illegible]	[illegible]	15	[illegible]	8	4.2	79

See footnotes at end of table

CLIMATOLOGICAL DATA

METRIC UNITS

		Pressure		Temperature												Precipitation							Wind					No of days sunrise to sunset				
												No of days							No of days		Snow Sleet				Fastest mile (1 6 kilometers							
State and Station	Elevation (ground)	Station Ø	Sea level	Average maximum	Average minimum	Average	Departure from normal	Highest	Date	Lowest	Date	Max 32 2 °C or above	Min 0 C or lower	Average dew point	Average relative humidity	Total	Departure from normal	Greatest in 24 hours	25 mm or more	With thunderstorms	Total	Maximum depth on ground	Average speed	Prevailing direction	Speed	Direction	Date	Clear, 0 3	Partly cloudy 4 7	Cloudy 8 10	Sky cover tenths sunrise to sunset	Possible sunshine
	M.	Mb.	Mb.	C.	C.	C.	C	C		C.				C.	%	Mm.	Mm	Mm			Mm	Mm	M.p.s.		M p s							
COLORADO																																
PUEBLO	1414	858.1	1021.3	11.1	- 6.7	2.2	1.6	21.1	17	-19.4	26	0	31	- 7.8	56	5	- 3	4	3	0	33	25	2.6	W	17.4	NNE	[illegible]	18	[illegible]	4	[illegible]	[illegible]
CONNECTICUT																																
BRIDGEPORT	2	1016.6	1017.4	2.2	- 5.6	- 1.8	-2.4	16.7	1	-18.3	30	0	26	- 6.7	70	51	- 38	15	12	0	191	[illegible]	[illegible]	NW	[illegible]	SW	7	11		[illegible]	[illegible]	
HARTFORD	52	1010.2	1016.3	0.6	-11.1	- 5.3	-3.9	13.9	1	-22.8	30	0	29	- 8.9	75	66	- [illegible]	18	[illegible]	1	[illegible]	178	[illegible]	N	17.0	NW	[illegible]	9	5	17	[illegible]	
NEW HAVEN	2	1015.9	1016.6	2.2	- 6.7	- 2.3	-2.5	17.2	1	-18.9	31+	0	26			66	- 37	19	14	[illegible]	[illegible]	76	4.3		18.3	NW	31	11	4	16	[illegible]	51
DELAWARE																																
WILMINGTON	24	1014.9	1018.0	3.3	- 5.6	- 0.9	-2.7	18.9	1	-16.1	31	0	28	- 6.7	67	64	- 13	31	7	1	[illegible]	76	5.3	NW	19.7*	WNW	31	11	4	16	6.1	
DIST.OF COLUMBIA																																
WASHINGTON U	22			5.0	- 2.8	1.1	-2.4	18.3	1	-11.7	31	0	23			91	21	19	5													
WASH NATL AP	4	1014.2	1018.8	4.4	- 3.3	0.7	-2.7	17.8	1	-11.7	31	0	25	- 7.8	57	85	14	18	8		411	178	4.0	N	15.2	NW	31	13	1	17	6.0	[illegible]
FLORIDA																																
APALACHICOLA U	4	1019.0		16.1	7.8	11.8	-1.4	23.3	22	-10.6	13	0	3			58	- 18	24	10	1	0	0	2.5		10.3	NW	12+	10	8	[illegible]	5.2	65
DAYTONA BEACH	9	1019.0	1020.3	18.9	6.7	12.8	-2.9	27.8	25	- 6.1	13	0	7	8.3	78	18	- 31	7	7	1	T	T	3.4	NW	12.5*	WNW	6	[illegible]	[illegible]	11	5.7	
FORT MYERS	4	1019.6		22.8	10.6	16.5	-1.8	30.0	25	- 3.3	13	0	2		76	22	- 11	17	4	0	0	0	3.9		13.0*	NW	6	14	9	8	4.7	
JACKSONVILLE	7	1020.0	1021.1	17.2	5.0	11.3	-2.1	26.1	22	-11.1	13	0	6	5.0	71	62	6	45	8	0	T	T	[illegible]	NW	13.9	W	6+	13	8	10	[illegible]	66
KEY WEST	2	1018.3	1019.3	22.2	16.7	19.6	-1.9	28.3	5	7.8	13	0	0	15.0	76	93	[illegible]	64	6	0	[illegible]	[illegible]	4.7	NE	14.8	NW	6	9	12	10	5.1	73
LAKELAND U	65			20.6	9.4	15.1	-1.8	28.3	25	- 6.7	13	0	3			4	- 44	2	5	0	0	0	3.0					11	9	11	4.8	62
MIAMI BEACH	3			23.3	15.6	19.5	-1.8	26.7	28+	2.2	13	0	0			5	- 40	2	4		0	0	5.3	N	12.1	NW	5	13	11	7	4.6	64
MIAMI	2	1018.6	1019.8	22.8	12.8	17.6	-2.4	27.8	27	1.7	14+	0	0	11.7	70	5	- 37	2	4	0	0	0	3.1	NNW	10.3*	NNE	30	8	11	12	5.5	
ORLANDO	32	1015.9	1020.6	20.6	8.3	14.3	-2.1	28.3	25	- 6.7	13	0	4	8.3	71	43	- 5	37	7	1	0	0	3.6	NNW	11.2*	WNW	6	11	10	10	5.3	
PENSACOLA U	4			15.6	6.7	11.0	-1.8	22.8	1	-12.2	13	0	5			96	- 10	40	13	0	0	0	4.0	N#	10.7	SW	11+					55
TALLAHASSEE	18	1018.6	1021.4	17.2	3.3	10.3	-1.9	23.9	22	-12.2	13	0	10	5.0	75	62	- 25	32	7	0	T	T	3.4	N	10.3*	N	29+	10	7	14	5.6	
TAMPA	6	1019.3	1021.0	20.0	8.9	14.6	-2.3	26.7	25+	- 7.8	13	0	3	8.9	72	12	- 36	6	6	0	0	0	4.8	N	13.0*	WNW	5	12	8	11	5.3	62
WEST PALM BEACH	5	1019.0	1020.1	22.8	11.7	17.1	-3.0	27.8	27+	- 1.1	13	0	1	11.1	71	31	- 35	29	3	0	0	0	3.9	NNW	11.2*	NW	6	11	10	10	5.4	
GEORGIA																																
ATHENS	245	991.2	1020.8	11.1	- 1.1	5.1	-1.9	21.1	2	-16.7	13	0	18	- 1.1	70	62	- 53	25	9	0	T	T	4.1	WNW	11.2*	WNW	6	13	3	15	5.4	
ATLANTA	306	977.7	1020.8	10.0	- 0.6	4.6	-2.1	20.6	18	-17.2	13	0	15	- 1.7	68	59	- 52	27	6	0	T	T	4.4	WNW	9.4*	W	6	12	7	12	5.4	58
AUGUSTA	44	1013.2	1020.2	13.3	0.0	6.7	-1.8	23.3	20	-14.4	13	0	14	0.6	72	50	- 35	33	7	0	T	T	3.2	WNW	13.0*	WNW	9	12	5	14	5.5	
COLUMBUS	117	1006.8		13.3	1.1	7.1	-1.7	22.2	1	-15.6	13	0	12			68	- 47	25	10	0	0	0	3.4		10.7	N	6	11	8	12	5.5	
MACON	109	1006.8	1020.8	13.9	1.1	7.3	-2.1	22.2	20+	-15.0	13	0	10	0.0	66	53	- 50	22	8	0	T	T	3.4	NW	12.1	W	6	10	7	14	5.5	56
ROME	194	998.0		10.0	- 3.3	3.3	-2.4	21.1	2+	-17.8	13	0	22			75	- 55	29	10	0	T	T						10	6	15	6.2	
SAVANNAH	15	1018.3	1020.8	14.4	2.2	8.4	-2.3	23.9	20	-12.8	13	0	11	2.2	70	43	- 28	14	7	0	T	T	4.2	W	16.5	NW	6	10	9	12	5.5	63
THOMASVILLE U	86			16.1	5.0	10.4	-1.8	24.4	21	-13.3	13	0	7			80	- 5	19	10	0	0	0						12	4	15	5.5	
HAWAII																																
HILO	9	1013.2	1015.6	26.1	17.2	21.6	-0.4	29.4	10	15.0	28+	0	0	16.7	77	59	-327	12	13	0	0	0	3.0	SW	12.5	N	22	6	14	11	5.9	44
HONOLULU	2	1014.9	1015.3	27.2	18.3	22.6	-0.5	28.9	7	12.2	20	0	0	16.7	72	84	8	51	9	0	0	0	4.2	ENE	12.1	W	21	5	15	11	6.3	54
KAHULUI	13	978.0	1015.1	26.7	17.2	21.9		29.4	3	12.2	24	0	0	16.7	74	37		25	8	0	0	0	6.8	S	17.0*	NE	30+	15	10	6	4.6	70
LIHUE	35	1009.8	1015.8	26.1	17.8	21.9	-0.4	27.8	25+	13.3	22	0	0	16.7	75	29	-103	13	11	0	0	0	4.6	W	11.2	SW	12+	9	10	12	5.7	56
IDAHO																																
BOISE	865	926.9	1025.8	5.6	- 2.2	1.9	1.8	13.9	2	- 9.4	27+	0	22	- 2.8	76	6	- 27	4	5	0	T	T	2.3	SE	10.7	SE	2	3	6	22	8.1	54
IDAHO FALLS 42NW R	1460			1.7	-11.7	- 5.1	2.2	9.4	16	-26.7	25	0	31			6	- 9	6	2				1.6	N	12.1Y	S	2					
IDAHO FALLS 46W R	1504	853.4		1.7	-11.1	- 4.6	1.6	8.9	16	-26.1	25	0	31			6	- 9	6	1	0	T	T	1.7	NE	14.3Y	SSW	2					
LEWISTON	431	970.5		6.1	- 0.6	2.7	1.1	12.2	6+	-11.1	25	0	17			42	8	16	10	0	T	T						1	7	23	8.7	
POCATELLO	1355	868.9	1026.9	3.9	- 6.1	- 1.0	1.6	11.7	17	-19.4	25	0	31	- 5.6	73	11	- 14	10	3	0	13	51	3.6	SSW	14.3	W	2	4	7	20	7.5	54
ILLINOIS																																
CAIRO U	96	1008.5		6.1	- 2.2	1.9	-2.3	18.9	1	-17.8	12	0	23			67	- 26	35	10	0	56	51	3.5	S#	12.5	SW	13	11	9	11	5.3	58
CHICAGO O HARE	201	993.9	1019.6	0.0	-10.0	- 4.9		17.8	2+	-25.0	26	0	28	- 9.4	70	6		3	5	0	58	51	4.8	WNW	12.5*	W	22	7	6	18	6.8	
CHICAGO MIDWAY	186	996.4	1020.3	0.6	- 7.8	- 3.9	-2.3	17.2	2	-21.7	12	0	25	- 9.4	66	8	- 41	3	9	0	109	25	5.1	NW	13.0	W	23+	7	6	18	7.0	38
MOLINE	177	997.8	1021.1	0.6	-10.6	- 4.9	-2.3	17.8	2	-28.3	26	0	28	-10.0	66	14	- 28	5	4	0	79	76	5.5	WNW	16.1	NW	22	10	4	17	6.1	51
PEORIA	199	896.8	1021.7	0.6	-10.0	- 4.7	-3.1	16.7	2	-24.4	26	0	27	- 8.9	71	8	- 41	3	7	0	53	51	5.0	WNW	14.3	W	22	11	5	15	5.9	53
ROCKFORD	222	991.7	1020.2	- 0.6	-10.6	- 5.5	-1.9	16.7	2	-25.0	26	0	29	- 9.4	74	13	- 30	5	6	0	94	76	5.0	NW	12.1*	WNW	22	7	7	17	6.7	
SPRINGFIELD	179	997.1	1021.4	2.2	- 8.3	- 3.0	-2.7	18.9	2	-22.8	12	0	27	- 8.9	65	13	- 35	9	8	0	119	76	5.3	WNW	14.3	W	8	13	4	14	5.5	56
INDIANA																																
EVANSVILLE	116	1005.4	1021.9	4.4	- 6.7	- 1.1	-3.4	18.3	18+	-21.7	12	0	29	- 6.1	71	70	- 9	37	9	0	23	25	2.3	NW	10.7	SW	13+	9	8	14	6.1	52

See footnotes at end of table

CLIMATOLOGICAL DATA

METRIC UNITS

State and Station	Elevation (ground)	Pressure		Temperature											Average relative humidity	Precipitation							Wind					No. of days (sunrise to sunset)			Sky cover, tenths (sunrise to sunset)	Possible sunshine
												No. of days							No. of days		Snow, Sleet				Fastest mile (1.6 kilometers)							
		Station Ø	Sea level	Average maximum	Average minimum	Average	Departure from normal	Highest	Date	Lowest	Date	Max. 32.2 °C or above	Min. 0 C or lower	Average dew point		Total	Departure from normal	Greatest in 24 hours	25 mm or more	With thunderstorms	Total	Maximum depth on ground	Average speed	Prevailing direction	Speed	Direction	Date	Clear, 0-3	Partly cloudy, 4-7	Cloudy, 8-10		
	M.	Mb.	Mb.	C.	C.	C.	C.	C.		C.				C.	%	Mm	Mm.	Mm.			Mm	Mm.	M.p.s.		M.p.s.							%
INDIANA																																
FORT WAYNE	241	987.0	1019.6	0.0	- 9.4	- 4.7	-3.0	16.1	4+	-21.7	12	0	30	- 8.3	78	31	- 42	[illegible]	7	0	132	76	5.0	W	16.1	W	23	5	12	14	6.6	42
INDIANAPOLIS	242	989.3	1020.6	1.7	- 8.9	- 3.6	-3.1	17.8	2	-21.7	12	0	30	- 7.8	76	28	- 40	11	12	[illegible]	155	76	3.8	NW	11.6*	N	29	10	5	16	6.2	63
SOUTH BEND	234	991.5	1018.9	0.0	- 8.9	- 4.4	-2.6	15.6	1	-20.0	13	0	30	- 7.2	81	[illegible]	11	14	19	[illegible]	1064	584	5.3	SSW	13.4*	NW	6	3	7	21	7.9	
IOWA																																
BURLINGTON	212	994.8	1021.6	1.7	- 9.4	- 3.9	-1.9	18.9	2	-26.1	26	0	26	- 8.3	71	13	- [illegible]	[illegible]	7	0	97	76	5.0	WNW	19.2	NW	8	12	3	16	5.7	64
DES MOINES	289	988.6	1021.9	0.6	- 9.4	- 4.4	-1.4	17.2	1	-26.1	26	0	28	- 8.3	76	13	- 16	6	6	[illegible]	79	76	4.2	NW	16.5	NW	22	10	8	13	5.7	41
DUBUQUE	325	994.0		- 1.1	-10.6	- 6.0	-1.3	16.7	2	-30.6	26	0	27			21	- 27	11	8	[illegible]	11[illegible]	76			*			8	8	15	6.[illegible]	
SIOUX CITY	334	978.6	1021.8	1.7	- 9.4	- 3.7	0.4	17.8	16	-23.9	26+	0	28	- 9.4	66	7	- 1	3	[illegible]	[illegible]	1[illegible]	10[illegible]	4.3	NNW	[illegible].1	NW	22	8	7	16	6.5	54
WATERLOO	265	987.7	1021.1	- 0.6	-11.1	- 5.8	-0.9	17.2	3+	-31.7	26	0	27	- 9.4	75	7	- [illegible]	[illegible]	[illegible]	[illegible]	64	61	5.1	NW	13.4*	WNW	22	9	8	14	6.[illegible]	
KANSAS																																
CONCORDIA	448	970.1	1021.8	5.6	- 5.6	- 0.1	-0.3	18.9	16	-20.6	12	0	26	- 5.6	71	24	5	12	3	0	147	10[illegible]	4.9	NW	18.8	NW	8	1[illegible]	7	14	5.8	52
DODGE CITY	791	930.7	1021.5	8.3	- 3.9	2.4	0.9	21.1	16	-18.9	26	0	23	- 4.4	67	12		1[illegible]	4	0	18	15	4.6	[illegible]	17.[illegible]	N	22	12	5	14	5.5	63
GOODLAND	1111	890.3	1021.3	8.9	- 6.7	1.1	1.9	23.3	16	-21.1	25	0	31	- 7.2	63	9	- 3	6		0	58	25	5.[illegible]	[illegible]	21.6*	NNW	22	14	5	12	4.7	
TOPEKA	267	985.1	1022.2	5.6	- 5.6	- 0.1	-0.8	20.0	17	-23.3	26	0	26	- 3.9	75	11	- 25	[illegible]	5	0	[illegible]	51	4.[illegible]	NW	14.[illegible]	NW	22	12	3	16	5.9	48
WICHITA	403	970.7	1021.8	7.2	- 3.9	1.6	-0.5	17.2	17+	-20.6	26	0	24	- 3.3	73	15	- 9	6	7	0	[illegible]7	1[illegible]	[illegible]	S	17.4	N	22	10	5	16	5.9	47
KENTUCKY																																
COVINGTON	265	987.1	1020.0	3.9	- 7.8	- 1.9	-3.2	19.4	2+	-19.4	13+	0	29	- 6.7	72	[illegible]	- [illegible]	1[illegible]	11		119	[illegible]	[illegible].4	[illegible]	1[illegible].7*	W	6	8	5	18	6.7	
LEXINGTON	298	984.1	1020.9	4.4	- 5.6	- 0.7	-2.8	18.9	1	-21.1	13	0	25	- 4.4	78	[illegible]	- 29	28	11		41	[illegible]	[illegible].1	[illegible]	1[illegible].3	W	6	8	7	16	6.6	
LOUISVILLE	144	1003.4	1021.1	4.4	- 6.1	- 0.9	-3.1	17.8	4+	-19.4	13+	0	29	- 5.6	73	[illegible]	- 12	[illegible]	12		[illegible]	25	[illegible]	[illegible]	12.[illegible]	N	5	6	7	18	6.7	42
LOUISIANA																																
ALEXANDRIA	28	1017.9	1022.7	15.0	2.2	8.6		24.4	4	-11.1	13	0	9	3.3	76	[illegible]		[illegible]	8	[illegible]			2.6	NE				1[illegible]	8	13	5.8	
BATON ROUGE	20	1018.9	1022.0	17.2	5.6	11.2	-0.9	25.0	3+	-11.7	13	0	5	5.0	72	[illegible]	[illegible]	[illegible]	1[illegible]		[illegible]		3.4	NNE				7	12	12	6.0	
BURRWOOD R	2		1021.5											10.6	83			16					5.5	NE								
LAKE CHARLES	4	1020.7	1022.0	16.1	6.1	11.2	-1.4	24.4	20	- 7.8	13	0	3	7.2	8[illegible]	[illegible]	- 44	[illegible]	5	[illegible]			4.[illegible]	NE	13.0	N	5	8	7	16	6.5	
NEW ORLEANS	1	1019.5	1021.8	16.1	5.6	10.6	-2.2	24.4	21	- 8.3	13	0	6	6.1	80	114	[illegible]	[illegible]	11	[illegible]			3.5	N[illegible]	12.5*	NNE	5	6	10	15	6.2	
NEW ORLEANS AUD BON	2	1013.7		17.2	8.3	12.6		25.6	21	- 7.8	13	0	4			5[illegible]		[illegible]	14				2.1		8.[illegible]	N	5	8	10	13	6.0	49
SHREVEPORT	77	1013.4	1022.9	14.4	3.9	9.2	-0.6	25.6	4	- 8.9	13	0	7	2.8	71	[illegible]	- [illegible]	1[illegible]	1[illegible]	1	[illegible]	0	4.1	S				11	5	15	5.7	55
MAINE																																
CARIBOU	190	989.8	1014.2	- 3.9	-13.3	- 8.6	0.6	7.2	1	-26.7	27	0	31	-11.7	78	[illegible]1	19	[illegible]	13	[illegible]	[illegible]	787	4.8	SW	23.2*	NNW	30	3	10	18	7.4	
PORTLAND	19	1010.8	1015.1	1.7	-11.1	- 4.6	-1.1	16.7	1	-21.7	25	0	29	- 8.9	75	13[illegible]	41	[illegible]	1[illegible]	[illegible]	[illegible]	[illegible]	4.2	NNW	20.1	[illegible]	5	12	6	13	5.3	60
MARYLAND																																
BALTIMORE	45	1013.9	1018.6	4.4	- 5.6	- 0.6	-2.7	18.9	1	-15.0	31	0	28	- 8.3	66	[illegible]	[illegible]	[illegible]	7	[illegible]	[illegible]	127	4.6	WNW	15.2	NW	30	13	2	16	5.7	48
BALTIMORE U	4			5.0	- 2.8	1.2	-2.7	20.0	1	-12.8	31	0	21			[illegible]	- [illegible]	[illegible]	6													
MASSACHUSETTS																																
BLUE HILL OBS R	192	989.9	1014.1	1.7	- 7.2	- 2.9	-1.8	16.7	1	-22.8	30	0	26		69	1[illegible]1		[illegible]	1[illegible]		1[illegible]	1[illegible]	7.1	[illegible]	24.5	[illegible]	[illegible]					5[illegible]
BOSTON	5	1016.2	1015.2	2.8	- 5.0	- 1.1	-1.8	17.8	1	-20.0	31	0	22	- 7.2	64	115	[illegible]	5[illegible]	1[illegible]		1[illegible]	10[illegible]	6.8	WNW	21.[illegible]	NW	[illegible]	12	7	1[illegible]	5.5	5[illegible]
NANTUCKET	13	1014.6	1015.0	4.4	- 2.8	0.8	-1.2	11.7	6+	-19.4	31	0	23	- 3.3	76	1[illegible]3	[illegible]	[illegible]	19	[illegible]	[illegible]	10[illegible]	7.3	NW	21.[illegible]	NW	[illegible]	4	[illegible]	21	7.5	[illegible]
PITTSFIELD	357			0.[illegible]	-12.2	- 5.9	-2.2	16.7	1	-27.2	31	0	30			[illegible]	- [illegible]	[illegible]	1[illegible]		[illegible]	[illegible]2[illegible]										
WORCESTER	301	976.6	1014.8	0.[illegible]	- 8.3	- 4.3	-1.7	16.7	1	-25.0	30	0	26	- 8.3	74	1[illegible]	[illegible]	4[illegible]	1[illegible]	[illegible]	[illegible]	[illegible]	4.[illegible]	[illegible]	1[illegible].[illegible]	[illegible]	21+	1[illegible]	[illegible]	1[illegible]	5.3	
MICHIGAN																																
ALPENA	210	989.6		- 1.1	-10.6	- 5.9	-1.7	16.1	3	-23.3	26	0	30			42	- [illegible]	1[illegible]	16		[illegible]	27[illegible]	3.[illegible]	W[illegible]	13.[illegible]	[illegible]	[illegible]9	2	11	1[illegible]	7.6	56
DETROIT	189	99[illegible].1	1017.9	[illegible]	- 7.2	- 3.8	-2.7	14.4	3	-17.2	13	0	28	- 7.2	78	[illegible]	- [illegible]	[illegible]	[illegible]	[illegible]	[illegible]	127	[illegible].1	WNW	17.[illegible]	NW	[illegible]	4	[illegible]	18	7.2	41
DETROIT M WAYNE CO	193	993.4	1018.3	0.[illegible]	- 8.9	- 4.3	-2.6	15.6	4	-19.4	11	0	30	- 7.8	78	[illegible]	- [illegible]	[illegible]	14	[illegible]	[illegible]	17[illegible]	4.4	W[illegible]W				5	[illegible]	17	7.1	
DETROIT WILLOW RUN	217	988.7	1018.1	- 0.6	- 8.9	- 4.7	-3.3	13.3	4+	-17.8	31+	0	30	- 7.2	84	[illegible]	- 1[illegible]	[illegible]	1[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]W	14.3	NW	[illegible]3+	[illegible]	[illegible]	17	7.1	
ESCANABA	181	993.6		- 2.2	-10.[illegible]	- 6.2	-1.4	10.0	2	-24.4	26	0	26			[illegible]		17	1[illegible]	[illegible]	1[illegible]	[illegible]	[illegible].1		1[illegible].8	NW	6	[illegible]	[illegible]	18	7.1	
FLINT	23[illegible]	989.4	1018.3	[illegible]	-1[illegible]	- 5.1	-2.2	16.7	3	-20.6	31+	0	30	- 8.3	79	1[illegible]	- [illegible]	6	1	[illegible]	[illegible]	[illegible]	4.[illegible]	WNW	14.3*	WNW	[illegible]3	[illegible]	[illegible]	17	7.1	
GRAND RAPIDS	208	991.5	1018.4	0.[illegible]	- 8.9	- 4.2	-1.[illegible]	15.6	2	-20.6	31	0	29	- 7.2	80	4[illegible]	- [illegible]	1[illegible]	16	[illegible]	[illegible]	[illegible]	4.[illegible]	WNW	15.[illegible]	W	[illegible]	[illegible]	[illegible]	[illegible]4	8.[illegible]	37
LANSING	[illegible]	984.5	1017.9	- 0.6	- 9.4	- 4.9	-2.4	15.6	4+	-21.7	31	0	29	- 8.9	77	[illegible]	- 1[illegible]	1[illegible]	1[illegible]	[illegible]	[illegible]78	[illegible]	[illegible].3	WNW	[illegible].4	W	[illegible]3	[illegible]	[illegible]	1[illegible]	7.0	5[illegible]
MARQUETTE	[illegible]6	988.4		- 2.2	- 9.4	- 5.7	-1.3	15.0	3	-23.3	26	0	28			[illegible]	1[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	4.[illegible]	[illegible]W[illegible]	1[illegible].1	[illegible]	[illegible]	[illegible]	4	[illegible]	7.1	[illegible]
MUSKEGON	191	994.2	101[illegible].0	0.6	- 6.7	- 3.2	-1.5	15.0	1	-16.7	30	0	29	- 6.1	82	[illegible]	[illegible]	[illegible]	1[illegible]	[illegible]	1[illegible]	[illegible]	[illegible]	NNW	14.[illegible]*	NW	29	[illegible]	6	[illegible]	8.7	
SAULT STE MARIE	220	991.8	1015.5	- 3.[illegible]	-11.1	- 7.4	-1.0	10.0	4+	-25.6	30	0	27	-10.0	79	[illegible]	- [illegible]	[illegible]	[illegible]	[illegible]	[illegible]4	[illegible]	4.[illegible]	N	1[illegible].[illegible]*	[illegible]	[illegible]9	4	3	[illegible]4	8.[illegible]	34
MINNESOTA																																
DULUTH	435	975.1	1019.5	- 5.0	-14.4	- [illegible].7	0.3	12.8	3	-28.9	26	0	30	-13.9	70	[illegible]	7	9	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible].2	[illegible]	29	[illegible]	6	1[illegible]	[illegible]	44
INTERNATIONAL FALLS	359	975.5	1019.[illegible]	- 6.7	-17.8	-12.1	0.5	13.3	3+	-33.3	30	0	30	-16.1	70	[illegible]	4	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]*	[illegible]	29	8	4	[illegible]	[illegible]	

See footnotes at end of table

CLIMATOLOGICAL DATA

METRIC UNITS

State and Station	Elevation (ground)	Pressure		Temperature											Average relative humidity	Precipitation							Wind					No. of days (sunrise to sunset)			Sky cover tenths (sunrise to sunset)	Possible sunshine
												No of days							No of days		Snow Sleet				Fastest mile (1 6 kilometers)							
		Station Ø	Sea level	Average maximum	Average minimum	Average	Departure from normal	Highest	Date	Lowest	Date	Max 32 2 °C or above	Min. 0 C or lower	Average dew point		Total	Departure from normal	Greatest in 24 hours	25 mm or more	With thunderstorms	Total	Maximum depth on ground	Average speed	Prevailing direction	Speed	Direction	Date	Clear, 0-3	Partly cloudy, 4-7	Cloudy 8-10		
	M	Mb.	Mb	C.	C	C.	C	C.		C.				C.	%	Mm.	Mm	Mm			Mm	Mm	M.p.s		M p.s							%
MINNESOTA																																
MINNEAPOLIS	251	985.2	1020.4	- 2.2	-12.2	- 7.2	0.7	16.7	3	-28.9	26+	0	28	-12.2	67	7	- 15	3	4	0	81	76	5.6	NW	14.3	NW	8	3	10	18	7.3	33
ROCHESTER	395	970.2	1020.4	- 2.2	-11.7	- 7.1	-0.2	16.7	1	-27.8	26	0	28	-10.6	76	7	- 18	4	6	0	114	76	6.5	NW				5	9	17	7.0	
ST CLOUD	315	980.6	1012.5	- 2.8	-12.8	- 7.9	0.7	14.4	1	-27.2	25	0	28	-13.9	70	3	- 15	1	7	0	46	25						8	6	17	7.0	
MISSISSIPPI																																
JACKSON	93	1009.5	1021.9	13.9	2.2	8.1	-1.4	23.9	20+	-13.3	13	0	9	2.8	74	83	- 53	40	10	1	0	0	3.3	N	13.4	N	11	9	9	13	5.9	51
MERIDIAN	89	1008.1	1022.4	13.3	0.0	6.8	-2.3	23.3	3+	-15.6	13	0	14	1.7	76	65	- 70	24	10	1	0	0	3.0	N	10.3*	E	24	10	8	13	5.8	
VICKSBURG U	71	1012.2		13.3	3.9	8.7	-1.5	23.3	20+	-12.8	13	0	5			100	- 26	44	9	1	0	0	3.7		12.1	NNE	5	11	7	13	5.5	59
MISSOURI																																
COLUMBIA	237	991.1	1021.0	4.4	- 5.6	- 0.5	-1.5	19.4	2	-21.7	12	0	24	- 5.6	72	20	- 30	13	7	0	76	51	5.1	WNW	17.0	NW	8	12	7	12	5.2	64
KANSAS CITY	226	985.4	1021.7	5.6	- 4.4	0.4	-1.1	20.0	17	-18.9	26+	0	24	- 5.0	69	26	- 12	14	8	0	130	102	3.0	WNW	15.2	NW	8	11	4	16	6.1	53
ST JOSEPH	247	986.0		3.9	- 6.7	- 1.4	-1.2	17.2	3+	-22.8	26	0	26			16	- 19	6	3	0	142	76	4.5	NW	13.9*	NW	22+	11	6	14	5.7	
ST LOUIS	163	1000.4	1021.8	4.4	- 5.6	- 0.4	-2.0	18.9	3	-20.6	12	0	25	- 6.1	68	51	1	36	9	0	20	25	4.6	WNW	13.9	NW	23	13	5	13	5.2	58
ST LOUIS RFC	142			5.0	- 3.9	0.6	-1.9	19.4	18	-20.0	12	0	24			57	2	33	9	0	18	T										
SPRINGFIELD	386	972.6	1021.7	7.2	- 4.4	1.2	-1.4	20.0	18+	-20.6	12	0	24	- 3.9	72	36	- 19	26	6	0	5	T	4.7	SSE	17.9	NW	9	11	6	14	5.5	61
MONTANA																																
BILLINGS	1087	893.0	1020.3	6.1	- 5.0	0.4	2.1	16.1	15	-20.0	24	0	24	- 8.3	57	6	- 9	3	8	0	33	25	6.1	WSW	18.8	NW	21	7	11	13	6.2	61
GLASGOW	694	942.1		1.1	- 9.4	- 4.2	3.8	12.2	16	-20.6	25+	0	31			5	- 7	2	7	0	36	25						6	9	16	6.8	
GREAT FALLS	1116	889.6	1021.3	5.6	- 5.0	0.3	2.4	16.1	15	-23.9	24	0	22	- 7.2	60	13	- 2	3	9	1	94	51	6.8	SW	18.3	SW	28+	3	9	19	7.3	45
HAVRE	787	928.2		3.9	-10.0	- 3.0	3.2	18.3	15	-21.1	23	0	29			1	- 11	1	2	0	T	T	4.2	SW	17.0	W	21	3	14	14	7.0	53
HELENA	1187	875.9	1023.2	3.3	- 6.7	- 1.6	2.8	11.7	21	-27.2	24	0	27	- 6.7	68	4	- 10	2	4	0	38	25	3.2	WNW	18.8	W	21	5	9	17	7.0	63
KALISPELL	904	915.9		2.8	- 3.3	- 0.4	4.8	8.3	6	-19.4	24	0	20			21	- 13	7	15	0	61	51	2.1					1	1	29	9.3	
MILES CITY				3.3	- 8.3	- 2.4		13.3	16	-19.4	11	0	31			12		7	4	0	79	25	3.9	SE	13.4	WNW	21	6	11	14	6.3	
MISSOULA	972	901.2	1024.6	2.2	- 3.9	- 0.9	3.8	8.9	21	-21.7	25	0	28	- 3.9	81	22	- 6	10	0		28	25	2.2	NW	15.2	W	28	10	2	0	8.7	22
NEBRASKA																																
GRAND ISLAND	561	953.1		2.8	- 9.4	- 3.3	-1.5	20.0	16	-22.8	26+	0	28	- 8.3	73	17	3	9	7	0	160	102	4.7	NNW				14	1	16	5.7	
LINCOLN U	351			3.3	- 6.1	- 1.6	-0.8	20.0	16	-22.2	12	0	27			13	- 10	3	9	0	117	51	4.2	NW#	16.5	NW	8	13	3	15	5.7	51
NORFOLK	471	963.3		2.2	- 9.4	- 3.7	0.1	21.7	16	-26.7	26	0	28			17	- 2	6	8	0	201	102						11	5	15	5.9	
NORTH PLATTE	847	918.3	1021.3	5.6	-10.6	- 2.4	0.1	22.8	16	-25.6	25	0	30	- 9.4	65	17	7	12	5	0	155	102	4.3	NW	25.0	NW	22	11	8	12	5.4	63
OMAHA	298	980.2	1021.9	2.8	- 7.2	- 2.1	0.0	16.1	16	-22.2	12	0	27	- 7.2	71	20	0	8	7	0	206	102	5.1	NNW	18.3	NW	8	11	5	15	5.9	53
OMAHA N OMAHA AP	403	971.5		1.7	- 7.8	- 3.2	0.1	15.6	16+	-24.4	12	0	27			16	- 6	8	9	0	150	102						10	7	14	6.0	
SCOTTSBLUFF	1204	881.0	1021.7	7.2	- 8.9	- 0.8	1.3	18.3	17	-23.9	25	0	31	- 8.3	64	10	0	7	5	0	132	102	4.9	NW	20.6*	NW	22	10	4	17	6.3	
VALENTINE	789	926.5		5.6	-10.6	- 2.7	1.2	18.3	16	-23.3	11	0	29			3	- 6	1	4	0	46	25	4.4	W#	22.4	NW	22	10	8	13	5.7	70
NEVADA																																
ELKO	1547	850.0	1026.6	7.8	-11.7	- 1.9	1.2	14.4	16	-24.4	26	0	31	-10.0	62	3	- 23	3	2	0	T	T	2.1	E	10.3*	S	16	16	7	8	4.2	
ELY	1907	812.4	1025.2	8.9	-11.1	- 1.3	1.6	16.1	14	-24.4	26	0	31	-11.7	55	T	- 17	T	0	0	T	T	4.2	SSW	11.6	N	24	18	8	5	3.5	90
LAS VEGAS	659	954.6	1022.2	14.4	0.6	7.7	0.4	21.1	8	- 7.2	27	0	13	- 5.6	43	6	- 4	6	2	0	0	0	2.7	SW	14.3*	N	24	19	5	7	2.8	85
RENO	1342	867.3	1025.5	9.4	- 7.8	1.1	0.3	18.3	15	-15.6	26	0	28	- 5.0	72	17	- 12	12	4	0	T	T	1.7	S	17.0	SW	2	12	8	11	5.0	66
WINNEMUCCA	1310	873.1		8.9	- 8.9	- 0.1	1.2	14.4	16+	-22.2	27+	0	28			7	- 17	5	4	0	10	T	2.2	NE	15.2	SW	2	10	9	12	5.4	95
NEW HAMPSHIRE																																
CONCORD	103	1004.4	1015.5	1.1	-11.7	- 5.2	-1.3	16.1	1	-22.8	31+	0	30	-10.0	72	80	- 3	46	9	0	323	254	3.0	NW	23.2	NW	30	14	5	12	5.0	61
MT WASHINGTON OBS	1909	793.2		- 9.4	-18.9	-14.1	-1.2	2.8	4	-40.6	30	0	31		83	170	9	49	14	0	1029	203	16.2	W	49.6Y	SE	6	9	5	17	6.2	46
NEW JERSEY																																
ATLANTIC CITY	18	1014.6	1017.8	5.0	- 4.4	0.2	-2.4	16.1	1	-15.6	31	0	25	- 5.6	68	98	16	34	8	1	130	102	4.9	NW	17.9*	NW	31	11	5	15	6.1	52
ATLANTIC CITY U	3			5.0	- 2.8	1.2	-2.3	12.2	2+	-13.3	31	0	23			71	- 18	29	8				6.5		21.5*	NW	31+					
NEWARK	3	1016.3	1017.4	3.3	- 3.9	- 0.5	-2.0	19.4	1	-16.7	31+	0	23	- 6.7	65	61	- 21	18	11	0	198	102	5.4	NNE	24.6*	NW	31	8	9	14	6.2	
TRENTON U	17	1009.8		2.8	- 4.4	- 0.8	-2.6	18.9	1	-17.2	31	0	25			72	- 1	29	10	1	191	102	4.6	N#	21.5	NW	31	8	10	13	5.9	54
NEW MEXICO																																
ALBUQUERQUE	1618	851.3	1021.8	8.9	- 3.9	2.7	-0.1	13.9	17+	- 9.4	31+	0	28	- 5.0	60	13	1	7	4	0	25	25	2.6	N	15.2	S	24	20	7	4	2.9	84
CLAYTON	1515	846.5		11.7	- 5.0	3.1	0.9	20.6	14+	-18.9	26+	0	27			3	- 6	2	2	0	20	25						17	7	7	3.7	
RATON	1944	806.4		9.4	- 8.9	0.4	0.9	18.3	16+	-22.8	26	0	31			8	2	4	4	0	36	25						20	3	8	3.6	
ROSWELL	1103	894.4		12.8	- 3.9	4.6	1.5	22.2	17	-11.7	30	0	26			4	- 10	T	4	0	3	T	3.2		11.6	NW	28	16	7	8	3.9	62
SILVER CITY	1638	838.1		12.2	- 1.1	5.4		17.8	16+	- 7.2	29	0	23			39		20	7	0	10	T						19	4	8	3.5	
NEW YORK																																
ALBANY	84	1012.9	1016.4	0.0	-10.0	- 5.0	-1.9	12.2	1	-23.9	31+	0	30	- 9.4	71	57	- 9	27	11	0	287	152	3.4	S	17.4	NW	30	8	5	18	6.7	54

See footnotes at end of table

CLIMATOLOGICAL DATA
METRIC UNITS

State and Station	Elevation (ground)	Pressure		Temperature											Average relative humidity	Precipitation							Wind					No. of days (sunrise to sunset)			Sky cover, tenths (sunrise to sunset)	Possible sunshine
												No. of days							No. of days		Snow, Sleet				Fastest mile (1.6 kilometers)							
		Station ϕ	Sea level	Average maximum	Average minimum	Average	Departure from normal	Highest	Date	Lowest	Date	Max. 32.2 °C or above	Min. 0 °C or lower	Average dew point		Total	Departure from normal	Greatest in 24 hours	.25 mm. or more	With thunderstorms	Total	Maximum depth on ground	Average speed	Prevailing direction	Speed	Direction	Date	Clear, 0-3	Partly cloudy, 4-7	Cloudy, 8-10		
	M.	Mb.	Mb.	C.	°C.	°C.	C.	°C.		°C.				C.	%	Mm.	Mm.	Mm.			Mm.	Mm.	M.p.s.		M.p.s.							%
NEW YORK																																
BINGHAMTON	485	952.6	1015.4	- 2.2	- 9.4	- 5.8	-2.3	13.3	1	-22.2	21	0	27	- 9.4	77	41	- 24	17	13	0	551	305	5.1	WSW	19.7	W	31	3	6	22	8.0	33
BUFFALO	215	987.5	1016.6	0.0	- 7.8	- 3.8	-1.2	15.6	4	-20.0	31	0	27	- 8.3	73	70	- 6	29	18	0	767	305	5.3	W	17.0	W	23	2	5	24	8.5	40
NEW YORK U	40	1004.7	1016.6	2.8	- 3.3	- 0.3	-2.6	20.0	1	-15.6	31	0	22	- 7.2	62	57	- 25	19	10	0	114	76	4.8	W#	19.2	NW	31+	13	7	11	5.2	58
NEW YORK LA GUARDIA	6	1015.2	1015.2	2.8	- 3.3	- 0.4	-2.9	17.2	1	-16.1	31+	0	21	- 6.1	68	52	- 34	16	11	0	89	51	6.1	NE	24.1	NW	31	8	9	14	6.2	
ROCHESTER	166	996.6	1016.6	1.1	- 7.8	- 3.3	-1.5	16.7	4	-19.4	30	0	29	- 7.2	76	40	- 20	13	15	0	361	178	5.1	WSW	15.2*	N	30+	3	3	25	7.9	48
SCHENECTADY	66			1.1	- 8.3	- 3.8	-0.9	13.3	1	-23.3	31+	0	28			56	- 11	24	10	0	320	203						13	6	12	5.4	
SYRACUSE	127	993.2	1016.0	0.6	- 8.9	- 4.2	-1.8	13.3	4+	-22.2	21	0	29	- 8.3	74	57	- 23	12	19	0	859	356	6.6	E	23.2	W	29	4	5	22	7.7	35
NORTH CAROLINA																																
ASHEVILLE U	671	938.4		6.7	- 3.9	1.3	-3.1	18.9	18+	-21.1	13	0	23			42	- 32	13	10	0	107	25	3.8	N#	15.2	NW	30+	13	7	11	5.4	60
CAPE HATTERAS R	2	1016.3	1017.0	10.6	3.3	7.1	-1.9	17.8	19	- 7.2	13	0	8	1.7	73	219	103	75	11	0	T	T	5.5	NNE	20.1	NNE	1	12	4	15	5.5	
CHARLOTTE	224	990.5	1019.5	8.9	- 2.2	3.3	-2.9	19.4	2	-16.7	13	0	22	- 3.9	65	76	- 15	26	10	0	T	T	3.5	NNE	11.2	NE	2	11	5	15	5.6	65
GREENSBORO	272	986.5	1019.4	7.2	- 2.8	2.2	-2.2	18.9	1	-17.8	13	0	23	- 4.4	66	125	46	69	8	0	20	25	4.0	SW	12.1	W	6	12	7	12	5.5	53
RALEIGH	132	1004.7	1018.8	8.9	- 1.7	3.3	-2.2	20.0	2	-15.6	13	0	21	- 3.3	66	56	- 21	23	8	0	T	T	4.4	SW	10.3*	NNW	30+	12	7	12	5.3	56
WILMINGTON	9	1015.9	1018.7	11.7	1.1	6.6	-2.4	21.1	19	-12.2	13	0	15	0.0	69	51	- 36	35	6	0	T	T	5.2	NNW	17.4	N	2	11	7	13	5.6	59
WINSTON SALEM	295	983.1	1019.3	7.2	- 2.2	2.5	-2.4	18.9	1	-15.6	13	0	22	- 5.6	59	154	69	91	8	0	38	25	4.5	NE	13.4*	WNW	6	13	7	11	5.4	
NORTH DAKOTA																																
BISMARCK	502	957.5	1020.8	0.0	-12.8	- 6.6	1.9	15.0	16	-26.7	11	0	31	-12.8	65	6	- 3	2	3	0	66	25	4.3	NW	21.0	NW	22	8	7	16	6.8	46
DEVILS LAKE U	448	963.8		- 4.4	-15.6	- 9.9	1.1	10.0	16	-27.2	29+	0	30			19	6	8	11	0	218	[illegible]	4.[illegible]	NW#	17.9	N	22	5	8	18	7.1	49
FARGO	274	984.1	1020.4	- 3.3	-13.9	- 8.6	1.5	13.9	16+	-25.6	12	0	30	-12.8	73	8	- 7	4	7	0	64	25	5.9	N	1[illegible]	NW	28+	6	7	18	7.2	48
WILLISTON U	579	949.5		0.0	-11.7	- 5.9	2.1	12.2	16	-27.2	11	0	31			7	- 6	2	3	0	64	25	4.6	NW#	21.[illegible]	N	22	6	12	13	6.5	52
OHIO																																
AKRON	369	979.0	1018.6	0.0	- 8.3	- 4.2	-2.8	17.8	2+	-20.6	13+	0	29	- 8.3	77	[illegible]	4	19	14	0	617	305	4.5	W	10.3*	W	23	4	5	22	8.0	
CINCINNATI OBS	232			3.3	- 6.1	- 1.4	-3.3	18.3	4	-18.3	12	0	29			[illegible]	- 31	17	9	0	[illegible]	[illegible]	[illegible]	W	11.2	W	6					47
CINCINNATI U	169	996.6		5.0	- 5.0	0.0	-2.6	21.1	1	-17.2	12	0	25			38	- 34	17	8		79											
CLEVELAND	237	989.5	1018.3	1.1	- 7.8	- 3.4	-1.9	17.2	3	-19.4	13	0	29	- 7.8	71	77	18	27	17	0	772	483	5.0	W	13.4	SW	23	4	1	26	8.5	24
COLUMBUS	247	988.8	1020.0	1.1	- 8.9	- 3.9	-4.2	17.8	1	-20.6	13	0	31	- 7.8	74	45	- 15	18	11	0	[illegible]41	127	4.1	W	17.0	W	7	6	7	18	7.3	41
COLUMBUS U	221			1.7	- 6.7	- 2.3	-3.1	18.9	1	-18.9	13	0	27			39	- 19	17	10	0	137	76										
DAYTON	304	986.1	1019.8	1.7	- 7.8	- 3.3	-2.9	18.3	2	-20.0	13	0	29	- 7.8	74	15	- 45	[illegible]	[illegible]	0	[illegible]	51	4.8	W	17.0	SW	7	8	6	17	6.7	36
MANSFIELD	395			- 0.6	- 9.4	- 4.9	-3.3	18.9	2	-22.2	12	0	28			39	- 28	12	12		457	[illegible]						7	5	19	7.2	
SANDUSKY U	185	995.6		0.6	- 7.2	- 3.6	-3.4	15.6	4	-20.0	13+	0	27			[illegible]	16	[illegible]	11		[illegible]	[illegible]	4.[illegible]		18.8	W	6	6	10	15	6.6	54
TOLEDO	206	992.6	1018.7	- 0.6	-10.0	- 5.2	-3.1	15.6	3+	-23.3	27	0	30	- 8.3	80	31	- 18	14	13	0	[illegible]	178	4.3	WSW	17.4	SW	23	6	10	15	6.8	45
YOUNGSTOWN	359	973.9	1018.1	- 0.6	- 8.9	- 4.7	-3.8	16.1	3+	-20.6	13+	0	29	- 8.9	75	51	- 18	18	16	1	[illegible]	152	5.5	SW	13.4*	WSW	6	2	7	22	8.3	
OKLAHOMA																																
OKLAHOMA CITY	390	977.6	1019.6	10.6	- 0.6	4.8	0.4	22.2	17	-12.2	12	0	18	- 0.6	73	1[illegible]	- 17	14	5	0	30	25	5.[illegible]	[illegible]	15.2	W	22	12	5	14	5.5	56
TULSA	206	997.1	1022.3	10.6	- 1.7	4.4	-0.4	21.1	17	-16.1	12	0	23	- 1.1	71	[illegible]	- 32	3	1	0	25	25	4.6	SE	14.8	NW	10	11	[illegible]	15	5.5	55
OREGON																																
ASTORIA	2	1019.3	1019.8	11.1	3.3	7.0	0.8	16.7	14	- 5.0	24	0	4	5.0	88	17[illegible]	-174	[illegible]	17	0	0	[illegible]	3.4	ESE	17.[illegible]*	SSW	1	4	3	24	8.3	
BURNS U	1265	877.7		5.6	- 5.0	0.4	2.1	12.8	7+	-13.3	26	0	28			26	- 1[illegible]	12	9		5	T						6	7	18	7.1	
EUGENE	110	1007.8		8.9	2.8	5.8	0.4	16.1	6	- 6.7	25	0	7			77	- 91	43	13	0		0	2.[illegible]		1[illegible]*		1	1	6	24	8.7	
MEACHAM	1234			[illegible]	- 2.8	0.2	1.4	10.0	8	-12.2	25	0	25			54	- 61	1[illegible]	13	0	127	[illegible]						6	4	21	7.6	
MEDFORD	396	974.3	1023.3	7.2	0.0	3.4	-0.[illegible]	22.2	14	- 9.4	25	0	16	1.7	90	119	37	94	9	0	[illegible]		1.[illegible]	N	11.2*	SE	14	2	8	21	8.4	
PENDLETON	452	968.5	1023.5	7.2	0.6	4.1	1.8	15.6	29	- 8.3	24	0	10	0.6	81	37	- 1	12	11		T	T	[illegible]	[illegible]	11.2*	WNW	2	2	5	24	7.7	
PORTLAND	6	1015.9	1021.6	9.4	2.8	5.9	0.7	14.4	15	- 5.6	26+	0	8	2.8	82	66	- 96	25	13			[illegible]	[illegible]	ESE	14.8	SE	14	[illegible]	4	24	8.[illegible]	25
PORTLAND I	9			10.[illegible]	4.4	7.4	1.[illegible]	15.6	15	- 2.2	26	0	4			7[illegible]	-116	2[illegible]	13			[illegible]										
ROSEBURG	154	1002.[illegible]		10.6	2.2	6.3	0.7	20.0	14	- 7.8	25	0	7			[illegible]	- 52	46	1[illegible]		0	[illegible]	1.3	NW	8.[illegible]	SE	14	[illegible]	8	21	8.[illegible]	29
SALEM	59	1014.6	1021.8	8.9	2.2	5.4	0.1	15.0	15	- 7.2	26	0	7	3.3	86	76	-111	34	13			0	[illegible].7	[illegible]	1[illegible].3*	[illegible]	1	1	6	24	8.8	
SEXTON SUMMIT R	1169	852.4		9.4	2.8	6.1	3.1	16.1	7	- 7.2	24	0	8			125	4	77	[illegible]		[illegible]	T	[illegible]	ESE				1[illegible]	[illegible]	11	5.[illegible]	
PACIFIC AREA																																
CANTON ISLAND	2	1009.1	1009.5	31.1	25.6	28.3	-0.1	32.2	30+	24.4	27+	6	0	21.7	70	[illegible]	- 62	2	4			[illegible]	[illegible].8	NE	[illegible]*	NNE	11	12	13	6	4.7	
ENIWETOK	4	1009.5		3[illegible].0	25.0	27.5	-0.2	30.6	14+	22.8	16	0	0			233	166	1[illegible]	2[illegible]				[illegible].9									
TAGUAC GUAM R	110			28.9	23.[illegible]	25.[illegible]	-0.1	30.[illegible]	2	16.1	12	0	0			[illegible]	[illegible]	11[illegible]	2[illegible]			[illegible]	4.5	NE	[illegible].7	E	7					
JOHNSTON	2	1013.5		27.2	23.[illegible]	25.[illegible]	-0.4	30.[illegible]	9	21.7	27+	0	0			357	[illegible]	118	[illegible]			[illegible]	[illegible]	NE	[illegible].7	E	31		1	10	[illegible].7	5[illegible]
KOROR R	29	1006.4	1008.9	30.6	24.4	27.4	[illegible]	32.2	2[illegible]	22.8	13+	1	0	2[illegible].9	85	16	- [illegible]	6	10	0		[illegible]	[illegible]		14.[illegible]	[illegible]	[illegible]				4.8	77
MAJURO	3	1008.8	1009.1	29.4	24.4	27.1	0.1	30.6	26+	22.2	20	[illegible]	0	23.3	81	[illegible]7	1[illegible]	[illegible]	27			[illegible]	5.8	[illegible]	14.[illegible]	E	23	1	11	19	[illegible]	68
PONAPE R	37	1004.1	1008.5	31.1	23.3	27.[illegible]	[illegible].4	32.8	10	21.1	17	4	0	23.9	84	[illegible]	-12[illegible]	57	[illegible]		0	[illegible]	[illegible]	[illegible]	14.[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	18	[illegible]	51
TRUK MOEN ISLAND	2	1008.5	1008.8	30.[illegible]	24.4	27.[illegible]	[illegible]	31.1	17+	22.8	21+	[illegible]	0	23.9	82	[illegible]	- 5[illegible]	1[illegible]	[illegible]		0	[illegible]	[illegible].1	[illegible]	1[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	16	[illegible].1	26
WAKE	3	1014.6	1014.5	28.[illegible]	23.[illegible]	25.[illegible]	-[illegible].4	29.4	9	20.0	26			20.6	74	[illegible]	16	[illegible]	12			[illegible]	[illegible]	[illegible]	1[illegible]*	[illegible]	16+	15	1[illegible]	4	4.1	

See footnotes at end of table

CLIMATOLOGICAL DATA

METRIC UNITS

State and Station	Elevation (ground)	Pressure: Station	Pressure: Sea level	Temperature: Average maximum	Temperature: Average minimum	Temperature: Average	Temperature: Departure from normal	Temperature: Highest	Temperature: Date	Temperature: Lowest	Temperature: Date	No of days: Max 32.2 °C or above	No of days: Min 0 C or lower	Average dew point	Average relative humidity	Precipitation: Total	Precipitation: Departure from normal	Precipitation: Greatest in 24 hours	No of days: 25 mm or more	No of days: With thunderstorms	Snow, Sleet: Total	Snow, Sleet: Maximum depth on ground	Wind: Average speed	Wind: Prevailing direction	Fastest mile (1.6 kilometers): Speed	Fastest mile: Direction	Fastest mile: Date	No of days (sunrise to sunset): Clear, 0-3	Partly cloudy, 4-7	Cloudy, 8-10	Sky cover tenths (sunrise to sunset)	Possible sunshine
	M.	Mb	Mb.	C	C	C.	C	C.		C.				C.	%	Mm.	Mm	Mm			Mm	Mm	M p s		M p.s							%
PACIFIC AREA																																
YAP R	17	1007.5	1008.4	28.9	23.9	26.6	-0.6	30.6	3+	22.2	28	0	0	23.9	85	381	124	71	5	0	0	0	4.6	NE	14.8	NE	4	0	0	31	7.3	64
PENNSYLVANIA																																
ALLENTOWN	115	1003.1	1017.9	1.7	- 7.8	- 3.2	-2.8	17.8	1	-18.9	31	0	29	- 7.8	72	67	- 17	22	9	0	353	178	5.2	WSW	22.8*	WNW	31	11	5	15	5.9	
ERIE	223	990.2	1017.2	1.1	- 6.7	- 2.8	-2.1	17.2	4	-18.3	13	0	25	- 6.7	76	109	42	32	15	0	775	483	7.5	SW	14.3*	SSW	23+	4	1	26	8.6	
HARRISBURG	102	1004.1	1018.2	2.2	- 6.7	- 2.1	-2.9	16.1	1	-15.0	31	0	30	- 7.8	68	84	10	48	8	0	422	203	4.2	NW	15.6	NW	31	7	7	17	6.7	45
PHILADELPHIA	2	1013.2	1017.6	3.9	- 5.0	- 0.6	-1.6	18.9	1	-16.1	31	0	26	- 7.8	61	54	- 21	25	8	1	241	76	5.0	WSW	16.1	NW	30+	10	5	16	6.5	42
PHILADELPHIA U	11			3.9	- 2.8	0.3	-2.7	18.3	1	-15.6	31	0	22			0		0														
PITTSBURGH	351	987.8	1019.2	0.0	- 8.3	- 4.4	-3.7	16.7	4	-20.6	13+	0	30	- 7.8	77	46	- 14	11	16	0	302	127	4.4	WSW	14.3	WSW	7+	4	4	23	8.1	49
PITTSBURGH U	228			2.2	- 6.1	- 1.9	-3.6	17.8	4+	-17.2	13	0	29			57	- 8	16	14		300											25
READING U	81	1005.1		2.8	- 5.6	- 1.4	-2.9	19.4	1	-16.1	31	0	28			84	4	43	9	0	320	152	4.7	W#	19.1	NW	31	9	7	15	6.1	46
SCRANTON	287	982.1	1017.5	0.0	- 8.3	- 4.4	-2.7	13.3	3	-20.0	31	0	30	- 8.9	72	56	- 7	30	14	0	328	127	4.1	SW	20.1	W	30	5	7	19	7.3	39
WILLIAMSPORT	161	998.3	1018.1	0.6	- 8.9	- 4.1	-3.2	13.3	1	-18.3	31+	0	30	- 8.9	71	73	- 4	44	14	0	450	152	4.3	W	18.3*	NNW	30	5	7	19	7.3	
RHODE ISLAND																																
BLOCK ISLAND	34	1010.8		3.3	- 4.4	- 0.6	-2.7	16.7	1	-20.0	31+	0	22			94	- 7	33	14	0	183	51						8	8	15	6.5	
PROVIDENCE	17	1009.5	1015.9	3.3	- 6.7	- 1.9	-1.9	18.3	1	-20.6	31+	0	27	- 7.2	68	67	- 25	25	13	0	168	102	5.2	NW	20.6*	NNW	30	11	9	11	5.2	55
SOUTH CAROLINA																																
CHARLESTON	12	1017.6	1019.5	13.9	1.1	7.6	-2.4	23.9	20	-13.3	13	0	11	1.1	69	37	- 35	18	9	0	T	T	4.2	NNW	21.5Y	W	6	11	8	12	5.1	63
CHARLESTON U	3			13.3	4.4	8.6	-2.3	22.2	20	-10.0	13	0	7			25	- 44	12	10	0	T	T	4.8		15.6	W	6					
COLUMBIA	66	1007.1	1020.2	12.8	0.0	6.5	-1.5	22.8	2	-14.4	13	0	17	- 1.7	64	58	- 32	28	8	0	0	0	3.9	N	13.0*	W	6	13	6	12	4.8	63
FLORENCE	45	1013.5	1019.2	11.7	0.6	6.2	-2.3	21.7	19+	-13.3	13	0	16	- 1.7	62	46	- 32	23	8	0	0	0	4.2	NNE	10.3*	WSW	9	14	4	13	5.1	
GNVLE SPARTANBURG	292	981.7	1019.5	11.1	0.0	5.3		21.7	2	-14.4	13	0	15	- 2.8	61	86		30	8	0	25	25	3.7	NE	13.0	NW	30	12	3	16	5.5	66
SOUTH DAKOTA																																
HURON	391	971.9	1021.4	0.6	-12.8	- 5.9	0.6	15.6	16+	-27.8	12	0	30	-11.7	66	6	- 8	2	7	0	76	25	5.0	NW	18.8	NW	8	5	10	16	6.6	50
RAPID CITY	965	902.9	1020.8	6.1	- 7.8	- 1.1	1.6	17.2	16	-20.6	11	0	28	- 8.3	62	5	- 3	3	5	0	41	25	4.6	NW	20.1	NW	22	7	8	16	6.6	55
SIOUX FALLS	433	967.1	1021.1	0.6	-11.1	- 5.2	0.9	16.1	1	-25.6	12	0	28	-10.0	70	5	- 14	4	4	0	43	25	4.6	NW	15.6*	NW	22	6	7	18	6.7	
TENNESSEE																																
BRISTOL	459	964.1	1020.1	5.6	- 3.9	0.6	-2.9	18.3	3+	-22.8	13	0	23	- 4.4	70	110	29	25	12	0	284	127	2.6	WSW	11.2*	W	9+	7	7	17	6.7	
CHATTANOOGA	204	993.2	1021.6	8.3	- 2.8	2.8	-2.7	19.4	4+	-18.9	13	0	22	- 3.3	68	83	- 49	30	9	0	T	T	3.2	NNW	14.3	NW	11	7	5	19	6.8	47
KNOXVILLE	290	984.8	1021.3	7.8	- 2.2	2.8	-2.3	18.9	18	-18.9	13	0	20	- 2.2	72	93	- 14	28	10	0	175	76	3.6	SW	17.9	SW	9	5	8	18	6.9	33
MEMPHIS	80	1007.1	1022.4	10.0	- 1.1	4.4	-2.0	21.7	2+	-15.6	12	0	19	- 1.1	71	34	- 91	15	8	0	76	76	3.8	S	11.6	W	5	11	7	13	5.5	56
MEMPHIS U	83			8.9	1.1	5.1	-1.7	21.7	2	-15.6	12	0	14			31	- 88	12	8	0	86	76										
NASHVILLE	176	1001.0	1021.4	7.8	- 3.9	1.7	-3.6	20.6	1	-21.7	13	0	24	- 2.2	77	49	- 58	18	8	0	208	127	3.2	S	13.0*	NW	8	7	9	15	6.6	50
OAK RIDGE	276	987.1		6.7	- 3.9	1.3	-3.2	18.9	1	-19.4	13	0	24			84	- 66	24	10	0	175		1.8		11.6Y		6	9	7	15	6.0	
TEXAS																																
ABILENE	536	958.5	1021.3	14.4	1.7	8.1	0.3	25.6	17	- 7.8	12	0	12	1.1	68	20	- 12	9	6	1	T	T	4.0	SSW	12.5	N	22+	13	5	13	5.2	58
AMARILLO	1099	891.3	1019.9	12.2	- 2.2	4.9	1.2	22.8	17	-13.3	26	0	22	- 3.3	65	16	- 3	12	3	0	20	T	5.4	WSW	19.2	NE	4	17	5	9	3.8	75
AUSTIN	182	999.6	1022.1	16.1	5.0	10.6	-0.9	26.7	15	- 5.0	12	0	3	3.9	69	88	24	36	8	2	0	0	3.8	NNE	15.2	N	11	9	4	18	6.4	49
BROWNSVILLE	5	1019.6	1020.6	21.1	11.1	16.0	-1.2	29.4	4	4.4	12	0	0	11.1	78	47	3	36	11	0	0	0	4.8	NW	14.3	N	11	3	5	23	7.9	27
CORPUS CHRISTI	13	1020.4	1021.5	18.3	8.9	13.6	-1.6	26.7	3	- 0.6	12	0	1	8.9	78	68	15	46	8	1	0	0	4.9	NNE	15.2	NE	26	4	5	22	8.0	30
DALLAS	147	1003.4	1022.6	13.9	3.3	8.8	-0.1	22.2	17	- 7.2	12	0	6	2.2	70	33	- 35	14	5	1	T	T	4.9	S	13.0	N	11	14	5	12	5.0	60
DEL RIO U	292			16.7	6.1	11.3	-0.5	25.0	16	0.0	14	0	1			8	- 13	3	7	0												
EL PASO	1194	889.3	1019.5	13.9	1.1	7.3	0.1	17.8	16+	- 5.0	29	0	15	- 1.1	59	8	- 5	5	4	1	0	0	2.6	NE	15.6	SW	24	16	7	8	3.8	77
FORT WORTH	166	1001.0	1022.5	13.9	2.8	8.4	-0.3	22.2	17	- 7.2	12	0	10	2.8	73	25	- 35	10	6	1	T	T	5.0	S	13.9*	NNE	11	15	4	12	5.1	
GALVESTON U	2			15.6	10.0	12.7	-1.3	21.7	4	- 1.7	12	0	1			153	54	50	13	0	0	0	5.3		18.8	NE	24					48
GALVESTON	2	1019.4	1021.9	15.6	10.0	12.5	-1.3	21.7	4	- 1.7	12	0	2	8.3	79	134	22	40	11	1	0	0	4.7	N				4	6	21	7.2	
HOUSTON U	12			16.7	9.4	13.0	-0.6	25.0	20+	- 2.2	13	0	2			119	15	57	12	0												
HOUSTON	15	1018.9	1021.6	17.8	7.8	12.7	-0.8	26.7	20	- 3.3	13	0	2	8.3	80	121	11	67	9	1	0	0	4.2	N				4	6	21	7.5	51
LAREDO	152	1005.8	1021.4	19.4	8.3	13.8	-1.3	29.4	16	1.7	12	0	0	6.1	66	22	- 8	10	8	0	0	0	4.0	NNW	12.1*	NE	11	5	4	22	7.8	
LUBBOCK	988	906.4	1020.7	12.8	- 1.7	5.8	0.8	24.4	17	- 7.8	26+	0	21	- 1.7	66	17	1	12	5	1	36	25	5.4	WSW	16.5*	N	4	17	7	7	3.7	
MIDLAND	870	919.0	1019.7	13.9	1.1	7.6	-0.2	25.0	17	- 7.8	12	0	15	- 0.6	65	15	- 2	9	4	2	18	25	4.1	SSW	13.0*	SW	19	13	8	10	4.8	
PORT ARTHUR	5	1019.9	1021.5	16.7	6.1	11.3	-1.1	25.0	4	- 6.7	13	0	3	7.2	80	104	- 25	49	8	1	0	0	4.0	N	15.2	NE	24	5	8	18	6.9	42
SAN ANGELO	580	952.5	1021.1	15.6	2.2	8.8	-0.5	26.7	17	- 7.8	12	0	15	1.1	65	12	- 10	5	5	1	0	0	3.3	S	10.3*	N	11	12	6	13	5.5	
SAN ANTONIO	241	996.0	1021.5	16.7	5.6	11.2	-0.8	25.6	4	- 2.2	12	0	1	5.0	71	58	14	30	8	2	0	0	3.9	N	13.4	NE	11	8	4	19	6.6	48
VICTORIA	32	1016.8		17.8	7.8	12.7	-1.3	25.6	19	- 1.7	12	0	1			61	- 5	36	8	1	0	0	5.5		17.4*		26	6	5	20	7.4	
WACO	152	1000.7	1022.4	15.0	3.9	9.5	-0.7	23.3	3	- 5.6	13+	0	6	3.9	73	34	- 36	15	7	1	0	0	5.5	SSE	16.1	N	11	13	5	13	5.1	
WICHITA FALLS	303	983.7	1021.6	13.9	1.7	7.8	1.1	25.0	19	- 6.1	12	0	14	0.6	67	31	- 6	19	7	1	15	T	3.5	S	11.2*	NNE	22	13	7	11	5.2	

See footnotes at end of table

CLIMATOLOGICAL DATA

METRIC UNITS

DECEMBER 1962

State and Station	Elevation (ground)	Pressure		Temperature								No. of days			Average relative humidity	Precipitation			No. of days		Snow, Sleet		Wind		Fastest mile (1.6 kilometers)			No. of days (sunrise to sunset)			Sky cover, tenths (sunrise to sunset)	Possible sunshine
		Station Ø	Sea level	Average maximum	Average minimum	Average	Departure from normal	Highest	Date	Lowest	Date	Max 32.2 °C or above	Min. 0 C or lower	Average dew point		Total	Departure from normal	Greatest in 24 hours	25 mm. or more	With thunderstorms	Total	Maximum depth on ground	Average speed	Prevailing direction	Speed	Direction	Date	Clear, 0-3	Partly cloudy, 4-7	Cloudy, 8-10		
	M.	Mb.	Mb.	C.	C.	C.	C.	C.		C.				C.	%	Mm.	Mm.	Mm.			Mm.	Mm.	M.p.s.		M.p.s.							%
UTAH																																
MILFORD	1533	849.0		7.2	-12.2	- 2.6	-0.4	15.0	16	-28.3	26	0	30			11	- 7	5	4	0	38	51						19	7	5	3.0	
SALT LAKE CITY	1286	874.1	1027.9	3.3	- 7.2	- 2.0	-1.8	12.2	2	-15.0	25	0	30	- 5.6	81	7	- 24	3	3	0	23	25	2.6	SSE	11.6	S	2	7	9	15	6.5	46
WENDOVER	1291	877.0		1.7	- 7.8	- 3.1	-1.8	12.8	3	-16.7	26	0	31			T	- 7	T	0	0	T	T						14	12	5	4.4	
VERMONT																																
BURLINGTON	101	1000.3	1015.6	- 1.1	-12.2	- 6.6	-1.6	12.8	4	-25.0	21	0	30	-10.6	73	44	- 1	16	13	0	427	229	4.1	S	16.5	N	31	3	6	22	8.1	37
VIRGINIA																																
LYNCHBURG	289	993.2		6.1	- 3.9	1.0	-2.6	18.9	1	-16.1	13	0	26			65	- 14	19	8	0	178	102	4.2		15.2	W	7	10	8	13	5.5	56
NORFOLK	8	1016.9	1018.4	6.7	- 1.1	2.9	-2.9	15.6	19	-10.0	13	0	24	- 2.8	70	97	27	24	9	0	114	102	6.3	NNE	20.1	W	9	11	8	12	5.5	56
RICHMOND	49	1012.5	1018.8	7.2	- 2.8	2.3	-2.0	19.4	2	-12.8	13	0	25	- 5.6	60	67	- 8	25	7	0	206	76	3.8	NNE	17.0	N	30	12	5	14	5.6	51
ROANOKE	358	975.6	1019.3	5.6	- 4.4	0.7	-2.8	17.2	1	-16.7	13	0	26	- 6.1	61	85	9	22	10	0	366	102	4.8	WSW	13.9*	WSW	7	10	9	12	5.7	
WASHINGTON																																
OLYMPIA	58	1008.8	1021.2	8.3	1.7	5.1	0.3	14.4	7	- 9.4	24	0	10	3.3	88	148	- 82	30	16	0	T	T	2.8	SW	13.4*	WSW	15	0	2	29	9.4	
SEATTLE TACOMA	122	1006.4	1020.5	8.3	3.3	5.7	0.8	13.9	15	- 5.6	24	0	8	2.8	83	133	- 27	41	17	1	T	T	4.0	SE	13.4*	SSW	27	1	4	26	8.8	
SEATTLE U	4			9.4	5.6	7.5	0.9	13.3	15+	- 2.2	26	0	3			97	- 40	32	16		0	0		SSE	17.9	SW	27					20
SPOKANE	718	952.6	1022.8	2.8	- 1.7	0.6	1.9	7.8	15	-12.2	25	0	19	- 1.1	88	37	- 25	11	14	0	13	25	3.8	SSW	11.6	SW	30+	1	3	27	9.3	15
STAMPEDE PASS R	1206	881.5		1.1	- 2.8	- 0.9	1.8	8.3	8	-11.7	25	0	28			240	-171	46	17	0	1128	1372						2	3	26	9.1	
TATOOSH ISLAND	31	1015.6	1018.6	10.0	5.6	7.9	1.0	16.1	14	1.1	25+	0	0	5.6	83	328	19	61	22	0	0	0	8.7	ENE	30.4	S	5	3	2	26	8.7	25
WALLA WALLA U	289	986.1		7.8	1.7	4.8	1.6	15.6	29+	- 6.7	25	0	10			61	14	28	12		T	T	1.6	W	11.2	SSE	29	0	2	29	9.7	6
YAKIMA	323	983.4	1023.5	6.1	- 1.7	2.2	2.4	11.1	21+	-10.0	26+	0	20	- 0.6	86	12	- 17	6	9	0	13	T	1.9	WNW	11.2*	NNE	23	2	4	25	8.7	
WEST INDIES																																
SAN JUAN P.R.	5	1013.2	1015.9	29.4	21.1	25.2	0.6	31.7	6	18.9	30	0	0	20.6	79	104	- 34	46	16	0	0	0	3.1	ENE	10.7	E	27	8	16	7	5.9	67
SWAN ISLAND	9	1015.2		27.8	23.3	25.6	-0.2	28.9	29	21.1	31	0	0			23	- 94	12	6	0	0	0						13	14	4	4.6	
WEST VIRGINIA																																
CHARLESTON	286	983.4	1020.1	3.9	- 5.6	- 0.7	-3.8	18.9	3	-17.8	13+	0	27	- 5.6	73	88	5	23	16	0	472	178	2.8	SW	9.8*	WSW	6	5	6	20	7.5	
ELKINS	600	947.2	1018.9	3.3	- 7.8	- 2.4		18.9	3+	-23.9	13	0	31	- 6.7	77	99		24	17	0	876	356	3.4	WSW	13.4*	NW	30	4	6	21	7.8	
HUNTINGTON U	252	989.2	1020.4	3.9	- 5.6	- 0.9		17.2	1	-20.0	12	0	28	- 3.9	82	75	- 1	30	14	0	183	102	3.1	WSW	10.3	W	9	5	6	20	7.3	
WISCONSIN																																
GREEN BAY	208	994.7	1018.3	- 1.7	-11.7	- 6.6	-0.7	16.1	3	-28.3	26	0	27	-10.0	76	26	- 4	10	7	0	148	127	3.7	WNW	13.4	NW	23	6	8	17	6.8	39
LA CROSSE	199	994.6		- 1.7	-10.0	- 5.9	-0.2	15.6	3+	-27.2	26	0	28	-10.6	61	8	- 22	4	7	0	119	102	5.5	S	13.9*	W	22	5	9	17	6.8	
MADISON	262	982.6	1019.6	- 1.7	-11.1	- 6.4	-1.2	16.1	2	-30.0	25	0	30	-10.0	75	23	- 12	13	7	0	163	127	4.3	NW	12.1	W	22	6	8	17	6.8	33
MILWAUKEE	205	993.2	1019.3	- 1.7	-10.0	- 5.8	-1.7	16.7	2	-25.6	26	0	29	-10.0	72	14	- 27	5	8	0	165	76	[illegible]	WNW	13.4	W	22	6	5	20	7.2	37
WYOMING																																
CASPER	1621	838.5	1021.1	5.0	- 6.7	- 0.9	1.7	14.4	16	-25.0	25+	0	27	- 9.4	57	6	- 6	2	5	0	81	51	6.1	SW	15.6*	SW	2	7	9	15	6.6	
CHEYENNE	1867	813.4	1020.6	6.7	- 7.2	- 0.3	0.8	18.9	16	-23.3	25	0	30	- 9.4	56	6	- 5	5	5	0	89	76	6.6	NNW	21.5	W	28	8	10	13	5.8	73
LANDER	1696	836.8	1022.2	5.0	-10.0	- 2.3	2.7	13.3	7	-25.0	25	0	31	-10.0	61	6	- 5	5	3	0	114	[illegible]	[illegible]	W	29.1	SW	[illegible]	14	6	11	5.0	74
SHERIDAN	1202	986.6	1021.9	6.1	- 7.8	- 1.0	2.2	[illegible]	16+	-21.8	24	0	31	- 7.2	70	13	- 2	9	7	0	173	[illegible]	[illegible]	NW	25.0	NW	21	9	9	13	6.0	56

Data from airport unless otherwise specified. U indicates Urban, R indicates Rural, sites.
- * Value entered in column headed "Fastest Mile" is the highest observed wind speed. This station is not equipped with an automatic recording wind instrument.
- A Maximum hourly average.
- + And also on an earlier date or dates.
- Ø Station pressures apply to elevations shown in the "Elevations - Station Pressure" table of the annual issue of this publication.
- B Number of days maximum 21.1°C. or above for Alaskan Stations.
- # Wind direction to 8 compass points only.
- Y Peak Gust.
- Z Sun continuously below horizon.

Data in this table is obtained by conversion from data in the English Units table.

HEATING DEGREE DAYS

(Base 65°F.)

DECEMBER 1962

State and station	Current season		Normals
	This month	Period July through this month	July through this month
ALABAMA			
Birmingham	686	1177	1139
Huntsville	813	1406	1228
Mobile	441	724	646
Montgomery	626	1071	925
ALASKA			
Anchorage	1499	4633	4838
Annette	782	2530	3026
Barrow	2294	8117	8511
Barter Island	2160	7785	8260
Bethel	1931	5774	5667
Cold Bay	1103	4097	4258
Cordova	1181	4070	4298
Fairbanks	2218	6095	6435
Juneau	1132	3628	3903
King Salmon	1629	4799	4952
Kotzebue	2100	6499	6654
McGrath	2230	6411	6386
Nome	1997	6158	6039
St. Paul	1172	4821	4772
Shemya	937	4113	4255
Yakutat	1066	3789	3955
ARIZONA			
Flagstaff	1026	2563	2749
Phoenix (U)	233	313	
Phoenix	301	417	607
Prescott	726	1391	1648
Tucson	336	486	696
Winslow	922	1675	1921
Yuma	165	201	335
ARKANSAS			
Ft. Smith	704	1235	1293
Little Rock	714	1230	1317
Texarkana	579	981	984
CALIFORNIA			
Bakersfield	472	773	821
Bishop	750	1454	1681
Blue Canyon	582	1600	1895
Burbank	268	476	527
Eureka (U)	469	1943	2027
Fresno	538	898	1015
Long Beach	212	400	543
Los Angeles (U)	228	399	398
Los Angeles	253	444	641
Mt. Shasta (R)	781	2015	2186
Oakland	474	1088	1065
Point Arguello (R)	365	1548	1446
Red Bluff	487	867	926
Sacramento (U)	540	884	907
Sacramento	581	981	923
Sandberg (R)	572	1225	1403
San Diego	258	438	444
San Francisco (U)	369	1304	1205
San Francisco	468	1221	1130
San Jose (U)	417	745	
Santa Maria	366	1160	1095
COLORADO			
Alamosa	1228	3224	3567
Colorado Springs	910	2114	2504
Denver	961	2147	2280
Grand Junction	1099	2013	2242
Pueblo	892	1859	2116
CONNECTICUT			
Bridgeport	1114	2299	1974
Hartford	1310	2859	2338
Middletown	1226	2755	
New Haven	1144	2358	2105
DELAWARE			
Wilmington	1072	2127	1836
DIST. OF COLUMBIA			
Washington (U)	963	1874	
Washington	981	1821	1603
FLORIDA			
Apalachicola (U)	363	588	488
Daytona Beach	320	453	286
Fort Myers	160	204	133
Jacksonville	390	632	466
Key West	58	62	28
Lakeland (U)	220	325	221
Miami	120	146	65
Miami Beach	61	75	40
Orlando	255	357	261
Pensacola (U)	399	657	549
Tallahassee	438	770	586
Tampa	240	340	231
West Palm Beach	140	171	71
GEORGIA			
Athens	732	1307	1164
Atlanta	759	1402	1207
Augusta	640	1141	963
Columbus	621	1109	963
Macon	606	1052	870
Rome	828	1537	1360
Savannah	543	944	730
Thomasville (U)	435	752	589
IDAHO			
Boise	908	2076	2298
Idaho Falls 46W (R)	1274	3073	3369
IDAHO (Cont'd.)			
Idaho Falls 42NW (R)	1301	3229	3525
Lewiston	867	2065	2215
Pocatello	1074	2479	2739
ILLINOIS			
Cairo (U)	910	1582	1504
Chicago (Midway)	1234	2298	2251
Chicago (O'Hare)	1291	2527	
Moline	1292	2566	2413
Peoria	1279	2478	2291
Rockford	1325	2636	2587
Springfield	1186	2201	2113
INDIANA			
Evansville	1075	2005	1801
Ft. Wayne	1281	2487	2370
Indianapolis	1221	2327	2180
South Bend	1264	2544	2391
IOWA			
Burlington	1235	2376	2318
Des Moines	1266	2393	2456
Dubuque	1354	2821	2842
Sioux City	1226	2446	2667
Waterloo	1343	2771	2762
KANSAS			
Concordia	1020	2023	2019
Dodge City	881	1780	1889
Goodland	958	2112	2351
Topeka	1018	1955	1979
Wichita	927	1720	1785
KENTUCKY			
Lexington	1054	2012	1804
Louisville	1071	2007	1849
LOUISIANA			
Alexandria	535	942	
Baton Rouge	398	645	631
Lake Charles	393	624	564
New Orleans (Audubon Park)	327	474	
New Orleans	427	662	558
Shreveport	502	843	848
MAINE			
Caribou	1497	3920	3790
Greenville (U)	1466	3851	
Portland	1266	3046	2790
MARYLAND			
Baltimore (U)	952	1727	1508
Baltimore	1048	2092	1802
Frederick	1124	2261	1952
MASSACHUSETTS			
Blue Hill Obs. (R)	1179	2600	2286
Boston	1078	2223	1971
Nantucket	970	2134	1995
Pittsfield	1346	3214	2889
Worcester	1258	2866	2583
MICHIGAN			
Alpena	1338	3279	3044
Detroit (City AP)	1226	2447	2279
Detroit (M. Wayne Co.)	1259	2588	2382
Detroit (Willow Run)	1280	2561	2301
Escanaba (U)	1364	3130	3145
Flint	1298	2831	2606
Grand Rapids	1253	2589	2557
Lansing	1289	2737	2573
Marquette (U)	1338	3204	3111
Muskegon	1194	2546	2563
S. Ste. Marie	1430	3410	3496
MINNESOTA			
Duluth	1560	3742	3854
Internat. Falls	1692	3861	4207
Minneapolis	1422	3078	3255
Rochester	1412	3021	3132
St. Cloud	1458	3145	3414
MISSISSIPPI			
Jackson	567	980	882
Meridian	640	1122	938
Vicksburg (U)	532	905	794
MISSOURI			
Columbia	1043	1946	1923
Kansas City	995	1791	1838
St. Joseph	1100	2097	2098
St. Louis (RFC)	982	1737	1698
St. Louis	1041	1892	1856
Springfield	952	1863	1745
MONTANA			
Billings	990	2270	2680
Butte	1300	3863	
Glasgow	1247	2822	3526
Great Falls	997	2538	2859
Havre	1185	2830	3369
Helena	1106	2888	3252
Kalispell	1042	3139	3568
Miles City	1156	2606	2956
Missoula	1065	3149	3384
NEBRASKA			
Grand Island	1202	2547	2373
Lincoln (U)	1101	2163	2174
Norfolk	1222	2530	2624
North Platte	1152	2448	2620
Omaha	1134	2220	2346
Omaha N. Omaha AP	1194	2378	2560
Scottsbluff	1062	2332	2632
Valentine	1163	2536	2858
NEVADA			
Elko	1124	2718	2950
Ely	1091	2648	3020
Las Vegas	588	845	1063
Reno	957	2341	2496
Tonopah	920	1978	
Winnemucca	1022	2417	2747
NEW HAMPSHIRE			
Concord	1312	2986	2800
Mt. Washington Obs. (R)	1808	6209	5889
NEW JERSEY			
Atlantic City	1007	1972	1719
Atlantic City (U)	951	1854	
Newark	1046	2024	1842
Trenton (U)	1063	2088	1821
NEW MEXICO			
Albuquerque	863	1627	1721
Clayton	843	1737	1980
Raton	994	2194	2467
Roswell	764	1546	1691
Silver City	713	1289	
NEW YORK			
Albany	1297	2878	2568
Binghamton	1339	3038	2784
Buffalo	1231	2726	2601
New York (U)	1032	2010	1696
New York (LaGuardia)	1039	1996	1665
Rochester	1202	2687	2453
Schenectady	1232	2749	
Syracuse	1250	2754	2478
NORTH CAROLINA			
Asheville (U)	941	1821	1623
Cape Hatteras (R)	623	1061	872
Charlotte	829	1525	1247
Greensboro	893	1685	1516
Raleigh	832	1569	1351
Wilmington	652	1149	886
Winston-Salem	877	1643	1422
NORTH DAKOTA			
Bismarck	1382	3011	3447
Devils Lake (U)	1567	3474	3833
Fargo	1492	3071	3564
Grand Forks CAA	1553	3016	
Pembina	1624	3112	
Williston (U)	1346	3036	3461
OHIO			
Akron	1249	2513	2378
Cincinnati (U)	1015	1835	
Cincinnati	1126	2230	1924
Cincinnati Obs.	1098	2053	1835
Cleveland	1206	2389	2444
Columbus	1238	2577	2092
Columbus (U)	1149	2172	
Dayton	1196	2364	2119
Mansfield	1290	2619	2420
Sandusky (U)	1216	2326	2101
Toledo	1305	2620	2469
Youngstown	1277	2710	2344
OKLAHOMA			
Oklahoma City	750	1356	1483
Tulsa	771	1359	1388
OREGON			
Astoria	628	1985	2129
Burns (U)	993	2615	2754
Eugene	691	1773	1867
Meacham	1007	3078	3085
Medford	827	1947	1886
Pendleton	789	1847	2102
Portland (U)	600	1419	1583
Portland	687	1645	1834
Roseburg	666	1577	1752
Salem	713	1858	1828
Sexton Summit (R)	680	2256	2319
PENNSYLVANIA			
Allentown	1189	2476	2181
Erie	1174	2450	2295
Harrisburg	1132	2270	1971
Philadelphia (U)	998	1909	
Philadelphia	1048	2114	1942
Pittsburgh (U)	1123	2169	1896
Pittsburgh	1263	2574	2278
Reading (U)	1092	2140	1847
Scranton	1260	2734	2496
Williamsport	1242	2616	2285
RHODE ISLAND			
Block Island	1047	2164	1882
RHODE ISLAND (Cont'd.)			
Providence	1125	2409	2167
SOUTH CAROLINA			
Charleston (U)	536	876	669
Charleston	597	1039	812
Columbia	653	1157	1006
Florence	674	1181	945
Greenville-Spartanburg	718		
SOUTH DAKOTA			
Huron	1351	2887	3024
Pierre	1224	2479	
Rapid City	1073	2371	2749
Sioux Falls	1305	2696	3007
TENNESSEE			
Bristol	983	1885	1724
Chattanooga	860	1512	1384
Knoxville	861	1597	1446
Memphis (U)	733	1270	1158
Memphis	772	1329	1241
Nashville	924	1627	1415
Oak Ridge	945	1750	1534
TEXAS			
Abilene	562	931	1051
Amarillo	741	1431	1647
Austin	429	621	644
Brownsville	168	196	215
Corpus Christi	274	363	340
Dallas	523	839	907
Del Rio (U)	388	502	
El Paso	608	1006	1069
Ft. Worth	545	871	925
Galveston (U)	311	414	408
Galveston	319	434	429
Houston (U)	303	416	453
Houston	313	478	472
Laredo	263	306	322
Lubbock	692	1281	1449
Midland	595	970	1060
Port Arthur	387	600	591
San Angelo	526	801	861
San Antonio	393	566	601
Victoria	313	451	426
Waco	484	728	769
Wichita Falls	577	962	1153
UTAH			
Milford	1159	2341	2550
Salt Lake City	1128	2224	2302
Wendover	1190	2225	2333
VERMONT			
Burlington	1386	3375	2886
VIRGINIA			
Lynchburg	957	1863	1636
Norfolk	854	1488	1242
Richmond	891	1665	1617
Roanoke	975	1890	1654
WASHINGTON			
Olympia	731	2175	2148
Seattle (U)	597	1544	1755
Seattle	628	1612	1992
Seattle-Tacoma	698	1978	2130
Spokane	981	2600	2741
Stampede Pass (R)	1097	3813	3844
Tatoosh Island (R)	577	2387	2459
Walla Walla	787	1806	
Walla Walla (U)	750	1711	1921
Yakima	894	2276	2473
WEST VIRGINIA			
Charleston	1052	2103	1745
Huntington (U)	1062	2101	1629
Parkersburg (U)	1111	2135	1835
WISCONSIN			
Green Bay	1384	2937	3094
La Crosse	1344	2776	2884
Madison	1376	2960	2927
Milwaukee	1342	2814	2863
WYOMING			
Casper	1066	2502	2849
Cheyenne	1031	2491	2821
Lander	1143	2642	3103
Sheridan	1073	2644	2962

Data from airport unless otherwise specified.
U indicates Urban, R indicates Rural, sites.

STORM SUMMARY

DECEMBER 1962

STATE	TORNADOES					HAILSTORMS				WINDSTORMS				LIGHTNING				‡ HEAVY SNOWSTORMS AND BLIZZARDS				# ICE STORMS				∅ ALL OTHER			
	NUMBER	DAYS	DEATHS	INJURIES	†DAMAGE	DEATHS	INJURIES	†DAMAGE		DEATHS	INJURIES	†DAMAGE		DEATHS	INJURIES	†DAMAGE		DEATHS	INJURIES	†DAMAGE		DEATHS	INJURIES	†DAMAGE		DEATHS	INJURIES	†DAMAGE	
								PROP-ERTY	CROPS			PROP-ERTY	CROPS			PROP-ERTY	CROPS			PROP-ERTY	CROPS			PROP-ERTY	CROPS			PROP-ERTY	CROPS
Alabama																										3	0	6	6
Alaska																		0	0	U	0								
Arizona *																													
Arkansas *																													
California										0	2	5	0													0	0	4	0
Colorado *																													
Connecticut										0	0	5	0													0	2	0	0
Delaware *																													
Florida *																													
Georgia																						0	0	5	0	0	0	5	3
Hawaii *																													
Idaho																										4	14		
Illinois *																													
Indiana																		D0		3	0								
Iowa *																													
Kansas *																													
Kentucky *																													
Louisiana						0	0	3	0	0	0	4	0													0		?	?
Maine										0	0	4	0					0	0	6	0					0	0	T5	0
																										0	0	F6	0
Maryland *																													
Massachusetts										0	0	6	0	0	0	3	0	0	0	5	0	0	0	3	0	F1	0	F5	0
																										0	0	T5	0
																										0	0	R4	0
Michigan												4								4									
Minnesota																		2	0	0	0								
Mississippi	1	1	0	0	3	0	0	2	0																	1		?	?
Missouri																						0	50	5	0				
Montana																		3	0	0	0								
Nebraska *																													
Nevada *																													
New Hampshire										0	0	4	0					0	0	6	0					0	0	5	0
New Jersey										0	0	5	0	0	0	2	0									0	0	1	0
New Mexico *																													
New York												5								5								5	
North Carolina																						6	U	5	0	4	U	5	0
North Dakota *																													
Ohio																		?	?	6	0								
Oklahoma																										0	0	?	0
Oregon																										0	0	5	3
Pennsylvania										0	0	4	0					0	0	6	0								
Puerto Rico *																													
Rhode Island										0	0	5	0													0	4	0	0
South Carolina *																													
South Dakota *																													
Tennessee																										2	?	6	?
Texas	1	1	0	0	3	1	0	0	4																				
Utah *																													
Vermont										0	0	4	0					0	0	6	0					0	0	5	0
U.S. Virgin Is. *																													
Virginia *																													
Washington *																													
West Virginia																												°5	C
Wisconsin *																													
Wyoming *																													

* No occurrence of storms or unusual weather phenomena.
‡ Includes heavy sleet storm.
# Freezing drizzle and freezing rain, commonly known as glaze.
ø For breakdown of "All Others", and for detailed listing of other storms, see the U. S. Weather Bureau monthly publication STORM DATA.
C Crop Damage
° Includes Crop Damage
U Unknown
T Tidal
F Cold
R Rain
D Does not include deaths from heart attack and auto accidents.

† Storm damages are placed in categories varying from 1 to 9 as follows:

1	Less than $50
2	$50 to $500
3	$500 to $5,000
4	$5,000 to $50,000
5	$50,000 to $500,000
6	$500,000 to $5,000,000
7	$5,000,000 to $50,000,000
8	$50,000,000 to $500,000,000
9	$500,000,000 to $5,000,000,000

GENERAL SUMMARY OF RIVER AND FLOOD CONDITIONS

DECEMBER 1962

Major flooding occurred along small creeks in the Rogue River Basin in Oregon during December. Bear Creek reached the highest flow ever recorded. The Rogue River reached the third highest stage of record. Very little flooding was reported elsewhere in the United States.

ATLANTIC SLOPE DRAINAGE

There were three important storms in Maine during December. Several inches of rain on the 6th caused the rivers in the State to rise rapidly to crests well below flood stage. The streams returned to their previous heights after several days. Prior to a snowstorm on the 23d, a 2-week period of cold weather without snow allowed river and lake ice to build up to abnormal thickness for this time of year. On the 30th and 31st, a snowstorm of blizzard proportions produced extremely heavy snowfall in central Maine. Combined with the previous deposit, snow on the ground averaged 4 feet deep at Old Town, Maine, at the close of the month. Snow depths in that State tapered off to 2.5 feet in the northeast, and to 2 feet in the southeast and northwest. The lower coastal area was least affected with snow depths of 1.5 feet or less.

Strong south-southwest winds and heavy rain crested exceptional high tides along the Hudson River, causing minor flooding at Poughkeepsie, Kingston, and Saugerties on the 7th. Over 2.5 inches of rain fell at Kingston, N. Y., in 48 hours.

Most streams in New Jersey were frozen over at the close of the month. Snow cover ranged from less than 1 inch in the central and southern portions of the State to 5 to 8 inches in the northern portion.

Ice began to form in streams in the Susquehanna Basin in Pennsylvania during the second week, remaining throughout the month. No ice jams or local flooding was reported. Snow cover at the end of December averaged 13 inches over the basin, with an average density of 20 percent.

Record-breaking snowfall occurred during the month at Washington, D. C. The total snow for the month was 16.2 inches which exceeded the alltime record of 14.5 inches established in December 1932. Precipitation over the upper Potomac Basin was not unusually heavy and, since it occurred mostly in the form of snow with little or no melting, river stages at most points remained below normal. High tide at Washington, D. C., was over 2 feet above normal on the 6th and nearly 3 feet below normal on the 12th, 24th, and 31st, because of wind effects.

Heavy rain (1 to 2 inches) over the upper Cape Fear Basin in eastern North Carolina on the 4th to the 6th caused minor flooding on downstream portions. Frequent rains during the last 10 days of December kept ground moisture at a high level. Precipitation from the 25th to the 30th, which totaled 1 to 1.5 inches, caused considerable rises on all streams. Stages reached near bankfull along the Neuse and Cape Fear Rivers on the first 2 days of January. The only flooding reported was at Elizabethtown, where flood stage was exceeded by 1 foot on January 2. Stages along the lower Roanoke River were controlled by the John H. Kerr Dam. No flood damage was reported.

MISSISSIPPI SYSTEM

Upper Mississippi Basin.--As in November, the December average river stages in the Upper Mississippi Basin were near the long-term mean. Navigation on the Mississippi River was closed at St. Paul, Minn., on the 5th and at Guttenberg, Iowa, on the 9th. Snowfall in the upper basin was very light.

Floating and shore ice began to show up in streams in the reach of the Mississippi below Muscatine, Iowa, on the 7th. Extreme cold weather on the 11th and 12th caused a general freezing of streams about the 13th.

Light to moderate floating ice was observed in the Mississippi at Cape Girardeau, Mo., on the 14th and at Cairo, Ill., on the 14th and 15th. While the Mississippi was not near record low stages in the reach between Cape Girardeau and Cairo, considerable difficulty was experienced by tows moving through that area during December. There was a large deposit of silt in the channel. This likely was caused by the lack of wood piling dikes, which were destroyed by the ice last winter. At times over 200 barges were located in the Cairo Harbor, waiting for the channel to be cleared by dredges.

Missouri Basin.--The Missouri River and left bank tributaries, from Bismarck, N. Dak., to Sioux City, Iowa, generally froze over on the 11th and 12th, but thawed out again by the 20th. A second hard freeze on the 25th and 26th froze these rivers for the second time, and they were mostly frozen over at the end of the month.

An ice gorge broke up above St. Joseph, Mo., on the 17th, causing a 3- to 5-foot rise along the Missouri from St. Joseph to Jefferson City, Mo.

Ohio Basin.--Cold temperatures over the upper Allegheny River Basin in Pennsylvania during December resulted in the formation of an ice cover along the main Allegheny River and tributaries on the 10th. This ice cover increased through the month with the river frozen over intermittently from Pittsburgh upstream to Olean, N. Y., with ice from 3 to 8 inches thick as of the end of the month.

Red Basin.--The flooding on the Sulphur River at Naples, Texas, during December was a continuation of the flooding which began in November. This flooding was due to the heavy rains that occurred on November 26-27. Little or no damage resulted from the minor flooding.

WEST GULF OF MEXICO DRAINAGE

Minor flooding occurred on the Sabine River at Mineola, Texas, on the 1st of the month. This flooding was due to the heavy rains on the 26th and 27th. Little or no damage resulted. The Sabine began rising slowly from Deweyville to Milam, Texas, on the 24th from the heavy general rains which began on the evening of the 23d. The rainfall continued for 36 hours with the heaviest falls from the lower Sabine Basin near Deweyville, Tex., northeastward to Sugartown, La., where the rainfall averaged approximately 4 inches. The Sabine rose to within 0.5 foot of bankfull at Deweyville and to three-fourths bankfull at Bon Wier, Tex., by the 31st and was still rising at the close of the month from the additional precipitation on the 28th and 29th. The rainfall averaged about 1.5 inches, except near Milam, Tex., where it averaged about 2.75 inches.

The Calcasieu River rose gradually in the upper and middle portions beginning on the 21st from the general rains during the night of the 20th and the early morning of the 21st. Additional heavy rains occurred over the basin on the 23d, 24th, 28th, and 29th. The river reached 0.5 foot above flood stage at Hineston, La., on the 31st and was still rising at the end of the month. At Kinder, La., the river reached flood stage on the 31st. There was minor flooding of roads and pastures in the lowlands near the river at Hineston and Kinder, La., but no damages occurred.

PACIFIC SLOPE DRAINAGE

Rogue Basin. --December was quite dry, except for the first 3 days when most of the precipitation occurred. Flooding occurred in varying amounts throughout much of the Rogue watershed in Oregon during the first 3 days of December. Although no record gage heights were reached anywhere on the Rogue River itself, Antelope and Little Butte Creeks suffered major flooding. Bear Creek reached the highest flow ever recorded, with an estimated 100-year frequency of occurrence. Culverts, small creeks, sewers, and irrigation ditches filled very quickly due to the intensity of the precipitation. The Applegate River crested at 14.2 feet on the 2d, which was the third highest crest of record. The Rogue River at Grants Pass, Oreg., crested at 27.2 feet, 5.2 feet above flood stage on the 2d, which was the third highest stage of record. This flooding was due to precipitation which averaged 3 to 5 inches during the first 3 days of the month. Most damage occurred as the result of poor drainage and the flash-flooding of smaller creeks and tributaries. Due to the rapid rise of Little Butte Creek to the highest stage since sometime in the 1870's, part of the town of Eagle Point was inundated. A number of vacation-type cottages and trailers were washed off their foundations and some valuable farmland was lost due to erosion, especially along lower Bear Creek where new highway construction created problems.

Columbia Basin.--Moderate rises occurred in the Willamette River Basin due to heavy rains during the first 3 days of the month. At Harrisburg, Oreg., on the main stem of the Willamette, the river came within 0.7 foot of flood stage. A moderate rise occurred on the Snake River at Clarkston, Wash., late on the 17th and early on the 18th, cresting at 17.2 feet. The remainder of the month was dry and no other rises of significance were noted in the Columbia Basin.

FLOOD STAGE DATA

(All dates in December unless otherwise specified)

DECEMBER 1962

River and station	Flood stage	Above flood stages -dates		Crest*	
		From—	To—	Stage	Date
ATLANTIC SLOPE DRAINAGE	Ft.			Ft.	
Cape Fear: Lock No. 2, Elizabethtown, N. C.	20	7	8	20.9	7
MISSISSIPPI SYSTEM					
Red Basin					
Sulphur: Naples, Texas	22	Nov. 30	8	27.2	2
WEST GULF OF MEXICO DRAINAGE					
Calcasieu: Hineston, La.	12	31	1/		
Kinder, La.	16	31	31	16.0	31
Sabine: Mineola, Texas	14	1	1	14.6	1
PACIFIC SLOPE DRAINAGE	Ft.			Ft.	
Rogue Basin					
Rogue: Eagle Point, Oreg.	9	2	2	9.2	2
Raygold, Oreg.	12	2	3	19.7	2
Grants Pass, Oreg.	22	2	3	27.3	2
Applegate: Applegate, Oreg.	8	2	3	14.25	2

* Provisional
1/ Continued at the end of the month.

RAWINSONDE DATA

Average monthly values

DECEMBER 1962

ALBANY, N. Y.
[illegible] MB

Standard pressure surface (mb)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind Direction	Wind Speed
SURFACE	31	86	-7.6	77	253	[illegible]
1000	31	130			266	2.7
950	31	[illegible]	[illegible]	64	275	5.6
900	31	[illegible]	[illegible]	63	[illegible]	8.5
850	31	1,399	-8.3	[illegible]	281	11.4
800	31	[illegible]	-9.4	57	278	17.1
750	31	2,366	-11.0	53	278	21.6
700	31	[illegible]	-12.9	50	276	24.3
650	31	3,458	[illegible]	44	274	[illegible]
600	31	4,061	[illegible]	49	271	30.7
550	31	4,704	-22.1	45	[illegible]	36.7
500	31	5,401	-26.0		265	42.6
450	31	6,154	[illegible]		260	48.6
400	30	[illegible]	[illegible]		261	49.0
350	30	7,893	[illegible]		260	50.1
300	30	8,927	-47.0		260	57.7
250	30	10,124	-51.1		261	58.1
200	30	11,565	-53.5		[illegible]	50.9
175	30	12,424	-53.3		265	50.7
150	30	13,416	-53.7		265	46.4
125	30	14,584	-55.4		264	36.5
100	30	16,001	-57.2		263	29.7
80	29	17,412	-57.5		262	23.7
70	29	18,256	-57.8		257	22.2
60	[illegible]	19,226	[illegible]		258	18.7
50	[illegible]	20,373	-58.3		249	13.4
40	[illegible]	[illegible]	-57.5		241	11.7
30	[illegible]	23,614	-56.4		[illegible]	9.3
25	25	24,772	-56.1		227	8.9
20	24	[illegible]	-54.7		236	12.6
15	20	28,055	-52.6		[illegible]	25.3
10						

ALBUQUERQUE, N. MEX.
841 MB

Standard pressure surface (mb)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind Direction	Wind Speed
SURFACE	31	1,619	-1.4	74	22	3.3
1000	31	217				
950	31	635				
900	31	1,073				
850	31	1,534				
800	31	2,023	1.6	53	341	7.0
750	31	2,540	-.3	54	314	9.1
700	31	3,092	-1.9	48	301	12.8
650	31	3,672	-4.7	43	294	13.8
600	31	4,304	-8.1	35	291	13.8
550	31	4,963	-12.5		283	14.6
500	31	5,695	-17.7		286	17.5
450	31	6,465	-23.6		282	18.5
400	31	7,325	-30.3		280	19.6
350	31	8,260	-37.8		279	19.8
300	31	9,305	-45.8		279	20.4
250	31	10,498	-53.9		272	22.5
200	31	11,913	-58.7		267	26.0
175	31	12,751	-59.3		261	30.9
150	31	13,713	-60.9		265	32.8
125	31	14,842	-62.7		268	33.6
100	31	16,211	-65.0		270	29.0
80	30	17,564	-65.6		278	22.7
70	30	18,376	-65.2		280	19.0
60	30	19,319	-64.3		279	15.2
50	30	20,437	-63.6		283	13.4
40	30	21,813	-61.7		277	11.9
30	26	23,613	-59.5		274	14.8
25	25	24,758	-58.1		274	18.1
20	23	26,170	-56.9		267	24.9
15	18	28,025	-53.8		276	21.8
10						

AMARILLO, TEXAS
895 MB

Standard pressure surface (mb)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind Direction	Wind Speed
SURFACE	31	1,095	-.3	80	287	3.7
1000	31	192				
950	31	612				
900	31	1,050				
850	31	1,510	4.1	49	295	6.8
800	31	2,002	3.4	44	280	8.4
750	31	2,522	1.6	43	278	12.4
700	31	3,078	-1.4	45	279	15.2
650	31	3,660	-4.4	40	278	19.6
600	31	4,292	-8.2	35	280	21.2
550	31	4,955	-12.3		282	24.3
500	31	5,685	-17.2		283	25.1
450	31	6,457	-23.1		283	26.6
400	31	7,318	-29.8		281	28.0
350	31	8,255	-37.1		279	29.0
300	30	9,300	-45.5		277	30.7
250	30	10,493	-53.5		275	36.7
200	29	11,906	-58.6		264	40.2
175	29	12,744	-59.3		266	42.2
150	29	13,708	-60.4		267	42.4
125	28	14,840	-61.9		267	41.6
100	28	16,212	-64.6		268	38.1
80	27	17,577	-65.5		271	33.2
70	27	18,391	-64.8		269	27.8
60	26	19,329	-64.5		269	23.5
50	23	20,451	-63.3		273	17.3
40	20	21,841	-61.1		273	13.2
30	18	23,639	-59.1		272	12.6
25	16	24,789	-58.2		272	10.5
20	13	26,205	-56.3		271	15.5
15	10	28,038	-54.0			
10						

ANCHORAGE, ALASKA
1006 MB

Standard pressure surface (mb)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind Direction	Wind Speed
SURFACE	31	29	-8.7	74	347	2.3
1000	31	70			350	5.2
950	31	473	-5.9	62	19	9.1
900	31	896	-5.6	55	41	6.8
850	31	1,343	-7.3	53	80	7.6
800	31	1,813	-10.0	54	114	8.5
750	31	2,308	-12.5	53	139	7.8
700	31	2,833	-15.4	53	156	5.8
650	31	3,387	-18.8	52	161	5.4
600	31	3,982	-22.4	51	165	4.5
550	31	4,611	-26.6	49	186	4.3
500	31	5,296	-31.5	47	205	5.2
450	31	6,030	-36.8		229	6.2
400	31	6,839	-42.6		227	9.3
350	31	7,731	-47.5		230	12.0
300	31	8,740	-51.5		233	17.3
250	31	9,916	-53.5		237	24.1
200	31	11,350	-53.4		241	24.3
175	30	12,208	-53.6		250	26.0
150	30	13,200	-53.3		254	26.2
125	30	14,374	-53.5		253	27.4
100	30	15,806	-54.4		260	32.8
80	30	17,235	-54.7		263	35.0
70	30	18,094	-54.9		265	36.1
60	30	19,074	-55.3		269	38.1
50	29	20,227	-56.0		272	39.2
40	29	21,643	-57.1		273	43.3
30	28	23,449	-59.0		277	46.2
25	25	24,588	-59.7		284	50.5
20	21	25,943	-61.1		284	59.1
15	14	27,794	-59.8		290	71.7
10						

ANNETTE, ALASKA
1007 MB

Standard pressure surface (mb)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind Direction	Wind Speed
SURFACE	31	37	4.1	78	133	5.8
1000	31	94			126	7.0
950	31	510	1.7	74	152	11.9
900	31	945	-.2	71	172	14.4
850	31	1,401	-2.4	73	190	15.3
800	31	1,881	-4.5	69	213	15.2
750	31	2,389	-7.1	67	217	18.1
700	31	2,923	-10.4	64	225	18.8
650	31	3,490	-13.5	55	230	19.2
600	31	4,097	-16.7	53	240	22.3
550	31	4,743	-20.5	52	241	26.4
500	31	5,446	-25.4	50	250	28.2
450	31	6,199	-30.6	49	253	32.1
400	31	7,031	-36.7		255	35.6
350	31	7,942	-43.5		256	34.6
300	31	8,963	-50.2		263	38.3
250	31	10,137	-55.9		264	40.2
200	29	11,527	-57.1		265	34.6
175	29	12,372	-56.6		262	34.8
150	29	13,351	-56.0		263	35.4
125	26	14,501	-55.9		271	34.0
100	26	15,917	-57.0		269	31.9
80	24	17,358	-56.5		276	29.7
70	23	18,195	-57.1		270	22.9
60	22	19,169	-58.2		280	22.5
50	20	20,301	-59.0		288	21.8
40	17	21,690	-58.9			
30	13	23,515	-58.5			
25	12	24,659	-58.7			
20	10	26,092	-58.3			
15	8	28,002	-58.4			
10	[illegible]	30,530	-58.3			

ATHENS, GA.
991 MB

Standard pressure surface (mb)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind Direction	Wind Speed
SURFACE	30	246	1.4	80	305	3.3
1000	30	170				
950	30	586	4.4	62	301	6.0
900	30	1,026	4.0	57	288	11.5
850	30	1,491	3.3	47	284	16.7
800	30	1,981	1.5	43	278	21.0
750	30	2,497	-1.3	42	277	25.5
700	30	3,046	-3.9	38	277	30.5
650	30	3,625	-6.1	36	276	35.6
600	30	4,253	-9.2	37	274	43.1
550	30	4,915	-13.2	37	272	43.5
500	30	5,641	-18.3	37	273	47.2
450	30	6,412	-23.7		272	52.5
400	30	7,271	-29.7		275	56.3
350	30	8,210	-36.5		275	64.3
300	30	9,262	-43.8		272	67.6
250	30	10,466	-51.1		274	70.3
200	30	11,898	-56.4		271	75.0
175	30	12,744	-57.5		270	72.7
150	30	13,712	-60.1		271	68.6
125	30	14,843	-62.6		270	55.8
100	29	[illegible]	-65.2		270	43.7
80	29	17,566	-64.6		268	32.4
70	28	18,387	-64.8		268	27.6
60	27	19,331	-63.2		270	21.8
50	27	20,457	-61.3		267	15.2
40	27	21,851	-59.0		265	15.0
30	27	23,668	-56.4		263	16.1
25	27	24,829	-55.4		259	16.7
20	26	26,261	-53.4		260	16.5
15	19	28,132	-50.0		264	19.8

BARROW, ALASKA
1021 MB

Standard pressure surface (mb)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind Direction	Wind Speed
SURFACE	31	8	-22.4	70	85	2.1
1000	31	160	-19.9	70	81	4.1
950	31	543	-17.7	69	87	5.1
900	31	950	-15.6	64	109	1.6
850	31	1,382	-15.7	59	347	1.7
800	31	1,838	-17.0	52	322	2.5
750	31	2,320	-18.5	46	313	3.3
700	31	2,834	-20.7	42	293	8.0
650	31	3,374	-23.7	40	295	10.9
600	31	3,961	-27.0	40	291	12.6
550	31	4,578	-30.6	38	292	14.8
500	31	5,256	-35.1		296	19.0
450	31	5,976	-40.2		290	21.4
400	31	6,779	-45.9		292	21.8
350	31	7,657	-51.7		288	23.7
300	31	8,642	-57.4		287	26.8
250	31	9,788	-59.5		283	26.6
200	31	11,186	-58.5		267	27.8
175	29	12,025	-57.7		259	26.4
150	29	12,997	-58.2		249	30.5
125	29	14,144	-58.5		251	31.1
100	26	15,532	-58.8		245	34.2
80	23	16,947	-58.7		240	39.4
70	20	17,791	-58.7		237	40.4
60	20	18,754	-59.5		236	45.1
50	18	19,937	-58.4		230	53.6
40	16	21,363	-58.3		233	63.9
30	15	23,171	-59.2		231	74.0
25	12	24,320	-61.3			
20	10	25,702	-62.7			
15	5	27,570	-61.7			

BARTER IS., ALASKA
1019 MB

Standard pressure surface (mb)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind Direction	Wind Speed
SURFACE	31	15	-20.3	62	256	3.7
1000	31	157	-18.9	66	267	4.3
950	31	544	-17.5	63	283	4.5
900	31	945	-16.7	61	303	2.1
850	31	1,375	-16.8	62	320	3.1
800	31	1,830	-17.1	60	310	3.7
750	31	2,311	-18.7	55	305	4.5
700	31	2,825	-21.0	50	300	4.9
650	31	3,366	-23.7	47	298	7.0
600	31	3,950	-27.2	44	298	9.3
550	31	4,568	-31.1	41	294	11.3
500	31	5,242	-35.4		297	13.4
450	31	5,962	-40.7		296	15.5
400	31	6,761	-46.2		292	17.7
350	31	7,638	-51.4		291	20.6
300	30	8,631	-56.5		285	23.1
250	30	9,780	-58.5		278	26.0
200	29	11,190	-57.0		267	30.7
175	28	12,031	-56.3		272	31.1
150	28	13,008	-56.6		266	33.0
125	28	14,164	-57.0		264	35.6
100	27	15,586	-57.4		260	41.2
80	26	16,993	-58.0		257	44.5
70	26	17,836	-58.6		256	49.9
60	25	18,824	-58.7		252	52.7
50	23	19,986	-58.6		252	57.3
40	20	21,429	-59.1		251	64.7
30	17	23,250	-59.6		243	71.1
25	16	24,413	-60.4		242	75.4
20	11	25,903	-61.3			
15	5	27,837	-60.9			

BETHEL, ALASKA
1011 MB

Standard pressure surface (mb)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind Direction	Wind Speed
SURFACE	27	39	-17.5	54	11	8.4
1000	27	123	-14.2	60	33	13.6
950	27	516	-9.2	57	46	16.3
900	27	935	-8.4	49	36	15.7
850	27	1,378	-9.5	46	24	14.8
800	27	1,845	-10.8	41	17	12.4
750	27	2,337	-13.4		13	11.5
700	27	2,862	-16.1		7	11.3
650	27	3,408	-19.1		3	10.9
600	27	4,008	-23.1		355	11.7
550	27	4,633	-27.5		347	11.3
500	27	5,319	-32.3		342	10.1
450	27	6,047	-37.5		329	10.3
400	27	6,858	-43.4		321	8.7
350	27	7,746	-49.1		336	11.1
300	27	8,745	-54.2		303	11.1
250	27	9,905	-56.4		261	12.6
200	27	11,325	-54.8		248	22.3
175	27	12,181	-53.7		255	22.7
150	27	13,172	-53.7		245	24.1
125	27	14,343	-53.9		249	27.6
100	26	15,781	-53.7		248	31.3
80	26	17,216	-53.5		249	37.5
70	26	18,073	-53.6		250	40.2
60	26	19,066	-53.6		254	43.3
50	26	20,237	-53.9		260	46.8
40	26	21,669	-54.6		264	51.9
30	26	23,504	-56.1		267	57.1
25	25	24,662	-57.1		267	59.7
20	23	26,067	-57.6		272	60.0
15	14	27,850	-59.4		276	78.3

BISMARCK, N. DAK.
958 MB

Standard pressure surface (mb)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind Direction	Wind Speed
SURFACE	31	505	-8.3	71	306	2.7
1000	31	169				
950	31	569			301	5.2
900	31	991	-5.2	55	302	14.8
850	31	1,441	-5.1	45	305	19.6
800	31	1,917	-6.2	42	310	25.6
750	31	2,420	-8.5	49	309	32.8
700	31	2,953	-11.2	52	304	35.8
650	31	3,517	-13.8	51	308	39.6
600	31	4,124	-17.1	49	306	45.7
550	31	4,771	-20.5	46	307	53.6
500	31	5,474	-24.9	43	303	50.1
450	31	6,225	-30.0	40	306	52.3
400	31	7,064	-35.9		301	58.7
350	31	7,979	-42.3		297	61.6
300	31	[illegible],006	-49.4		291	63.5
250	31	10,183	-55.3		284	58.5
200	31	11,596	-57.3		275	55.4
175	31	12,440	-56.9		277	54.8
150	31	13,417	-57.0		273	53.4
125	31	14,567	-58.3		274	51.9
100	31	15,966	-59.3		279	45.7
80	30	17,355	-59.9		279	38.5
70	30	18,190	-60.3		276	32.4
60	29	19,155	-60.9		278	25.8
50	29	20,286	-61.6		281	25.6
40	29	21,668	-62.1		277	19.0
30	25	23,486	-60.5		290	9.7
25	24	24,640	-60.0		291	7.2
20	18	26,128	-59.5			
15						

BOISE, IDAHO
923 MB

Standard pressure surface (mb)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind Direction	Wind Speed
SURFACE	31	868	-.4	83	117	2.5
1000	31	225				
950	31	640				
900	31	1,074	1.2	69	129	2.9
850	31	1,534	.8	62	162	3.1
800	31	2,020	-.1	54	269	6.4
750	31	2,535	-1.8	49	290	13.0
700	31	3,082	-4.5	44	282	16.3
650	31	3,658	-7.6	46	281	20.6
600	31	4,282	-10.9	42	288	22.7
550	31	4,943	-14.9	39	287	26.8
500	31	5,661	-19.8	38	286	28.4
450	31	6,434	-25.1		286	30.9
400	31	7,281	-31.5		288	30.1
350	31	8,212	-38.9		291	31.5
300	31	9,252	-46.9		297	32.1
250	29	10,451	-55.4		[illegible]	33.0
200	29	11,851	-61.8		300	34.0
175	28	12,683	-61.5		303	31.7
150	28	13,638	-61.7		302	31.1
125	27	14,765	-62.0		301	29.0
100	25	16,151	-63.4		302	27.0
80	22	17,513	-63.5		309	23.1
70	22	18,333	-63.4		312	21.0
60	22	19,281	-63.5		315	19.2
50	20	20,388	-63.5		311	18.3
40	18	21,770	-63.2		316	16.9
30	17	[illegible]	-62.8		316	18.3
25	16	24,673	[illegible]		312	22.3
20	14	26,060	-61.8		320	22.5
15	9	27,937	-59.3			
10						
7						
5						

BROWNSVILLE, TEXAS
1019 MB

Standard pressure surface (mb)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind Direction	Wind Speed
SURFACE	31	7	12.7	86	335	5.8
1000	31	169	14.2	80	355	6.4
950	31	603	14.2	80	68	4.5
900	31	1,060	12.8	73	145	3.9
850	31	1,539	11.1	67	206	5.1
800	31	2,044	9.0	61	234	9.7
750	31	2,575	6.6	56	250	10.9
700	31	3,141	3.8	49	262	13.4
650	31	3,736	.5	43	263	14.6
600	31	4,378	-3.6	41	264	17.3
550	30	5,053	-7.8	38	256	22.9
500	30	5,798	-12.4		252	27.8
450	30	6,586	-17.7	36	252	33.6
400	30	7,469	-23.7	40	251	38.3
350	30	8,431	-30.7	40	253	44.1
300	30	9,506	-39.2		258	54.0
250	30	10,732	-48.0		260	66.6
200	29	12,168	-57.6		262	67.2
175	29	13,002	-61.8		258	66.3
150	29	13,950	-64.7		260	59.7
125	29	15,054	-67.7		258	52.3
100	29	16,383	-72.2		258	46.8
80	23	17,695	-72.2		260	28.2
70	21	18,489	-70.4		268	19.0
60	21	19,409	-67.4		274	13.2
50	20	20,520	-63.8		274	8.0
40	18	21,898	-59.9		268	11.3
30	17	23,710	-56.3		266	17.7
25	15	24,874	-53.9		270	23.7
20	15	26,316	-51.3		274	32.1
15	14	28,196	-49.2		276	28.2
10	12	30,880	-45.4		274	34.6
7	7	33,262	-40.6			
5						

BUFFALO, N. Y.
990 MB

Standard pressure surface (mb)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind Direction	Wind Speed
SURFACE	31	218	-5.1	75	236	4.7
1000	31	134				
950	31	535	-4.4	68	244	10.3
900	31	962	-6.2	65	259	14.8
850	31	1,407	-7.8	61	261	16.3
800	31	1,877	-9.8	58	271	17.3
750	31	2,373	-11.6	55	273	20.6
700	31	2,901	-13.4	49	277	25.1
650	31	3,461	-15.8	48	277	28.2
600	31	4,063	-19.1	48	278	29.7
550	31	4,703	-23.2	47	277	32.3
500	31	5,398	-27.2	44	274	36.7
450	31	6,146	-31.9	43	277	36.9
400	31	6,975	-37.2		274	42.2
350	31	7,888	-42.0		266	47.8
300	30	[illegible],918	-47.2		263	49.7
250	30	10,111	-51.9		263	52.8
200	30	11,551	-53.7		267	55.4
175	29	12,402	-53.6		263	49.4
150	29	13,392	-54.5		266	39.2
125	29	14,558	-55.5		268	35.0
100	25	15,959	-57.0		255	31.1
80	23	17,371	-58.4		261	26.8
70	23	18,215	-58.8		265	19.4
60	23	19,177	-58.3		253	19.8
50	19	20,319	-59.2		260	12.8
40	19	21,716	-59.4		254	10.1
30	16	23,518	-57.6		245	9.1
25	14	24,675	-56.7		226	12.4
20	13	26,082	-54.4			
15	11	27,958	-51.7			
10						
7						
5						

BURRWOOD, LA.
1020 MB

Standard pressure surface (mb)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind Direction	Wind Speed
SURFACE	31	3	12.4	88	25	6.4
1000	31	173	13.0	74	13	5.8
950	31	606	11.3	71	334	2.3
900	31	1,055	9.8	62	296	4.5
850	31	1,529	8.0	57	283	8.7
800	31	2,028	6.4	53	277	14.2
750	31	2,556	4.7	42	279	17.3
700	31	3,117	2.4	39	278	20.2
650	31	3,707	-1.3	45	275	25.3
600	31	4,345	-4.9	39	271	29.1
550	31	5,020	-8.6		268	37.1
500	31	5,757	-13.3		268	38.5
450	31	6,547	-18.8		270	42.7
400	31	7,419	-25.1		268	48.6
350	31	[illegible],375	-32.3		265	55.6
300	31	9,443	-40.4		265	63.3
250	31	10,662	-49.4		266	75.6
200	30	12,098	-57.0		265	78.9
175	30	12,938	-59.9		263	72.5
150	30	13,893	-62.9		261	67.8
125	30	15,007	-66.0		259	60.0
100	29	16,342	-69.7		262	45.5
80	27	17,668	-69.7		265	33.8
70	25	18,478	-68.3		265	27.4
60	22	19,399	-65.1		268	19.0
50	20	20,518	-62.7		274	14.4
40	20	21,904	-59.5		270	15.5
30	20	23,716	-56.4		269	17.7
25	19	24,876	-54.4		276	15.2
20	18	26,313	-51.6		272	20.0
15	15	28,191	-48.6		270	28.4
10	14	30,883	-43.7		256	28.6
7	9	33,322	-36.7			
5						

CANTON IS., PACIFIC AREA
1010 MB

Standard pressure surface (mb)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind Direction	Wind Speed
SURFACE	30	4	26.5	76	41	9.5
1000	30	93	25.8	76	47	10.3
950	30	539	22.3	80	72	12.4
900	30	1,014	18.9	78	80	12.4
850	30	1,504	16.9	57	86	10.7
800	30	2,020	15.6	38	83	9.9
750	30	2,559	13.2	32	80	7.8
700	30	3,143	10.0	32	86	7.0
650	30	3,747	6.4	31	87	6.8
600	30	4,407	3.2		92	8.5
550	30	5,106	-.4		95	6.4
500	30	[illegible],865	-4.8		101	7.2
450	30	6,680	-9.9		86	5.6
400	30	7,586	-15.8		116	4.5
350	30	[illegible],580	-22.5		139	3.3
300	30	9,693	-31.0		169	4.5
250	30	10,959	-41.3		178	9.7
200	30	12,435	-53.3		184	14.6
175	30	13,282	-60.3		187	14.0
150	30	14,225	-68.0		200	11.1
125	30	15,299	-76.1		236	12.2
100	27	16,562	-83.1		251	13.0
80	26	17,801	-81.9		256	12.4
70	24	18,561	-75.8		268	13.4
60	24	19,462	-70.6		268	9.3
50	24	20,556	-66.9		56	6.4
40	23	21,920	-61.9		89	34.8
30	21	23,725	-56.1		90	54.2
25	20	24,896	-52.6		92	59.7
20	20	26,352	-47.9		92	61.0
15	20	28,280	-42.2		99	17.5
10	19	31,031	-41.5		315	2.1
7	17	33,467	-39.0		88	8.5
5	14	35,776	-34.5			

See reference note at end of table

RAWINSONDE DATA

Average monthly values

Standard pressure surface (mb)	CAPE HATTERAS, N. C. 1016 MB Number of observations	Dynamic height	Temperature	Relative humidity	Wind Direction	Wind Speed
SURFACE	31	4	5.4	77	339	6.2
1000	31	135	5.6	72	343	10.1
950	31	553	4.6	68	338	10.9
900	31	994	3.2	59	305	11.5
850	31	1,457	1.8	54	279	15.0
800	31	1,945	1.0	53	270	20.6
750	31	2,463	-1.0	56	267	24.9
700	31	3,011	-3.3	50	268	28.2
650	31	3,591	-6.3	52	268	32.3
600	31	4,218	-9.0	46	267	36.7
550	31	4,881	-12.8	43	264	40.4
500	31	5,607	-17.4	41	263	46.6
450	31	6,383	-22.8	40	262	51.3
400	31	7,242	-28.6	40	261	57.7
350	31	8,185	-35.7	43	258	63.0
300	31	9,240	-43.2		261	64.5
250	31	10,448	-50.2		264	72.5
200	31	11,885	-55.3		266	71.7
175	31	12,735	-56.7		269	70.3
150	31	13,708	-58.5		270	64.9
125	31	14,846	-61.1		269	55.6
100	30	16,221	-62.9		266	48.4
80	30	17,591	-63.5		267	32.1
70	29	18,419	-62.9		262	28.4
60	29	19,364	-61.8		256	27.0
50	29	20,497	-60.3		255	20.6
40	28	21,893	-58.5		255	16.1
30	25	23,710	-55.7		258	13.8
25	25	24,875	-54.4		253	16.5
20	24	26,307	-53.2		250	15.3
15	19	28,174	-50.2		247	25.3
10	16	30,850	-45.8		241	38.7
7	8	33,248	-41.1			
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Standard pressure surface (mb)	CARIBOU, ME. 990 MB Number of observations	Dynamic height	Temperature	Relative humidity	Wind Direction	Wind Speed
SURFACE	31	191	-9.8	82	239	3.1
1000	31	112				
950	31	505	-7.5	72	238	9.1
900	31	928	-9.5	69	250	10.3
850	31	1,369	-10.2	63	257	12.2
800	31	1,835	-11.4	56	264	14.2
750	31	2,329	-13.1	53	261	16.3
700	31	2,852	-15.3	52	265	19.8
650	31	3,408	-17.8	50	262	21.4
600	31	4,005	-20.8	48	259	24.7
550	31	4,642	-24.1	47	255	27.0
500	31	5,333	-28.5	49	256	26.2
450	31	6,080	-33.1	47	261	32.8
400	31	6,903	-38.4		254	38.7
350	31	7,809	-44.3		260	44.1
300	31	8,830	-49.6		257	51.3
250	31	10,016	-51.6		261	49.0
200	31	11,459	-52.7		261	50.3
175	31	12,323	-51.9		261	45.5
150	31	13,321	-52.3		261	42.4
125	28	14,520	-52.4		259	37.9
100	28	15,957	-54.5		261	33.6
80	28	17,383	-55.2		256	[illegible]
70	28	18,237	-55.8		258	23.5
60	27	19,216	-56.0		250	19.6
50	27	20,374	-56.5		255	18.7
40	27	21,791	-56.1		248	16.1
30	27	[illegible]	-56.3		240	14.0
25	27	[illegible]	-55.5		236	14.6
20	27	[illegible]	-54.5		226	13.8
15	25	[illegible]	-55.1		217	10.3
10	23	30,653	-52.7		227	18.7
7	13	33,055	-48.8			
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Standard pressure surface (mb)	CHARLESTON, S. C. 1018 MB Number of observations	Dynamic height	Temperature	Relative humidity	Wind Direction	Wind Speed
SURFACE	31	13	3.8	79	315	3.3
1000	31	160	5.9	68	321	5.4
950	31	584	6.9	62	302	8.7
900	31	1,026	6.0	59	285	12.2
850	31	1,474	4.9	52	275	15.3
800	31	1,988	3.2	47	272	18.7
750	31	[illegible]	.9	46	274	23.5
700	31	3,062	-1.8	44	272	29.1
650	31	[illegible]	-4.6	41	272	32.8
600	31	4,277	-7.6	37	271	37.1
550	31	4,948	-11.6		271	42.4
500	31	5,675	-16.4		271	47.6
450	31	6,454	-21.6		270	52.5
400	31	7,320	-27.6		271	55.0
350	31	8,267	-34.8		272	58.9
300	31	9,325	-42.7		271	63.3
250	31	10,536	-50.3		271	72.1
200	31	[illegible]	-55.6		267	68.0
175	31	12,820	-57.5		266	67.8
150	31	13,788	-60.2		267	68.4
125	30	14,922	-63.1		267	60.6
100	30	16,286	-65.7		267	52.7
80	30	17,640	-66.0		266	39.2
70	30	18,463	-64.9		266	32.3
60	29	19,394	-63.1		268	21.8
50	[illegible]	20,522	-61.2		[illegible]	18.7
40	28	21,915	-58.5		264	19.2
30	28	23,733	-56.8		265	14.0
25	27	24,897	-54.6		262	12.2
20	26	26,333	-51.8		258	14.6
15	21	28,214	-48.5		246	21.8
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Standard pressure surface (mb)	COLD BAY, ALASKA 1003 MB Number of observations	Dynamic height	Temperature	Relative humidity	Wind Direction	Wind Speed
SURFACE	31	30	-1.7	84	351	7.2
1000	31	56			344	6.8
950	31	465	-3.2	71	347	13.0
900	31	890	-5.3	70	359	11.7
850	31	1,338	-6.9	62	25	12.0
800	31	1,810	-8.6	55	26	11.9
750	31	2,309	-10.8	51	23	9.1
700	31	2,836	-13.5	50	17	10.5
650	31	3,394	-16.7	50	6	9.3
600	31	3,994	-20.3	48	346	6.4
550	31	4,627	-24.7	44	312	4.5
500	31	5,319	-29.6	42	249	3.7
450	31	6,057	-34.7	43	242	6.2
400	31	6,877	-40.9		241	8.9
350	31	7,772	-47.2		222	10.7
300	31	8,778	-53.0		218	12.8
250	31	9,945	-55.3		217	14.0
200	30	11,370	-53.7		222	17.9
175	29	12,229	-52.5		221	20.6
150	29	13,228	-51.9		227	20.8
125	28	14,405	-51.7		229	24.5
100	27	15,850	-51.5		238	27.8
80	26	17,297	-51.2		245	32.8
70	25	18,164	-51.2		249	33.8
60	25	19,167	-51.5		251	37.1
50	24	20,355	-52.0		258	38.5
40	24	21,797	-53.3		268	39.4
30	22	23,646	-55.0		266	43.7
25	22	24,807	-56.2		266	40.8
20	22	26,220	-57.5		270	47.8
15	[illegible]	[illegible]	-57.9		275	41.8
10	13	30,659	-57.7		262	40.4
7	8	33,114	-55.6			
5	5	35,442	-55.5			

Standard pressure surface (mb)	COLUMBIA, MO. 992 MB Number of observations	Dynamic height	Temperature	Relative humidity	Wind Direction	Wind Speed
SURFACE	31	238	-3.2	8	245	1.0
1000	31	170				
950	31	579	-1.7	64	283	8.5
900	31	1,009	-2.0	57	290	13.0
850	31	1,464	-2.0	45	295	15.2
800	31	1,945	-2.9	40	294	17.3
750	31	2,449	-4.9	43	295	19.4
700	31	2,995	-7.4	43	296	23.9
650	31	3,563	-10.2	39	291	27.8
600	31	4,181	-13.8	41	292	30.9
550	31	4,837	-17.7	39	289	34.4
500	31	5,546	-21.9		287	40.0
450	31	6,307	-27.0		285	44.1
400	31	7,153	[illegible]		285	44.9
350	31	8,079	-39.7		284	51.9
300	31	9,117	-47.0		280	55.0
250	31	10,306	-53.4		269	53.0
200	31	11,730	-56.3		271	53.0
175	31	12,578	-56.5		279	48.2
150	31	13,553	-58.0		279	50.5
125	31	14,699	-59.5		280	42.4
100	31	16,087	-61.2		281	34.8
80	30	17,472	-62.5		[illegible]	27.0
70	30	18,296	-62.7		[illegible]	22.2
60	30	19,245	-62.7		284	20.2
50	[illegible]	20,370	-62.3		287	14.6
40	29	21,758	-61.1		280	12.8
30	27	23,550	-59.5		269	[illegible]
25	24	24,711	-57.9		262	11.7
20	21	26,129	-55.7		254	8.7
15	12	27,985	-55.8			
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Standard pressure surface (mb)	DAYTON, OHIO 983 MB Number of observations	Dynamic height	Temperature	Relative humidity	Wind Direction	Wind Speed
SURFACE	31	297	-5.4	73	259	4.5
1000	31	159				
950	31	565	-4.2	64	255	8.9
900	31	990	-4.5	56	277	14.8
850	31	1,439	-5.3	51	282	16.9
800	31	1,914	-6.0	49	282	20.4
750	31	2,418	-7.7	50	277	24.7
700	31	2,953	-9.8	52	279	27.4
650	31	3,521	-12.7	50	278	29.7
600	31	4,130	-16.3	48	278	32.8
550	31	4,775	-19.9	45	280	36.1
500	31	5,481	-24.2		279	40.6
450	31	6,237	-29.1		276	43.1
400	31	7,076	-34.4		280	43.9
350	31	7,999	-40.0		278	48.8
300	31	9,036	-46.3		276	52.5
250	31	10,230	-52.1		276	54.0
200	31	11,662	-55.0		275	49.2
175	31	12,515	-55.0		275	48.2
150	31	13,496	-56.2		277	42.4
125	31	14,649	-58.1		275	37.3
100	31	16,045	-60.4		275	29.9
80	31	17,433	-61.1		275	19.2
70	31	18,266	-61.1		274	12.8
60	29	19,227	-61.0		282	13.0
50	29	20,361	-60.5		282	11.7
40	26	21,765	-59.6		274	9.7
30	24	23,573	-58.0		275	9.1
25	23	24,725	-57.4		261	8.0
20	23	26,141	-55.5		250	9.1
15	18	27,981	-55.4		266	9.1
10	[illegible]	30,593	-51.1			

Standard pressure surface (mb)	DENVER, COLO. 839 MB Number of observations	Dynamic height	Temperature	Relative humidity	Wind Direction	Wind Speed
SURFACE	31	1,611	-4.7	64	188	2.5
1000	31	206				
950	31	618				
900	31	1,055				
850	31	1,509				
800	31	1,995	2.1	42	289	7.0
750	31	2,512	-.1	40	298	12.2
700	31	3,064	-3.2	41	307	14.2
650	31	3,642	-7.0	44	317	18.7
600	31	4,266	-10.5	41	314	24.3
550	31	4,926	-14.4	36	314	27.0
500	31	5,647	-18.9		315	29.0
450	31	6,413	-24.6		313	30.1
400	31	7,269	-31.4		313	34.2
350	31	8,200	-38.8		312	35.9
300	31	9,240	-47.0		306	35.4
250	31	10,423	-55.6		300	36.9
200	31	11,826	-60.9		298	38.1
175	31	12,656	-60.2		290	37.5
150	31	13,619	-60.0		285	35.8
125	31	14,751	-62.0		286	35.0
100	31	16,127	-63.2		283	30.3
80	31	17,499	-63.3		283	24.5
70	31	18,320	-63.2		284	22.2
60	31	19,270	-62.9		282	20.0
50	30	20,391	-63.5		281	17.3
40	29	21,776	-62.5		280	15.7
30	27	23,568	-61.0		284	17.5
25	19	24,692	-60.2		270	21.6
20	13	26,094	-59.4		271	30.3
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Standard pressure surface (mb)	DODGE CITY, KANS. 928 MB Number of observations	Dynamic height	Temperature	Relative humidity	Wind Direction	Wind Speed
SURFACE	31	792	-1.5	77	303	3.1
1000	31	193				
950	31	605				
900	31	1,039	2.9	49	305	7.2
850	31	1,503	3.2	44	304	10.7
800	31	1,993	1.5	45	307	13.2
750	31	2,507	-.9	47	300	16.5
700	31	3,059	-3.4	44	300	21.2
650	31	3,637	-6.6	41	294	24.1
600	31	4,264	-10.1	38	293	27.4
550	31	4,924	-14.1	35	290	29.1
500	31	5,647	-19.0		288	32.3
450	31	6,416	-24.4		289	35.0
400	31	7,272	-30.9		290	38.9
350	31	8,205	-38.3		289	39.2
300	31	9,246	-46.6		288	43.5
250	31	10,433	-54.6		286	45.5
200	31	11,844	-58.7		276	49.9
175	31	12,683	-58.6		273	49.4
150	31	13,649	-59.7		274	47.2
125	30	14,790	-61.3		281	41.8
100	30	16,167	-63.2		280	36.1
80	30	17,538	-63.6		275	31.5
70	30	18,361	-63.9		277	25.8
60	29	19,303	-63.2		278	21.6
50	28	20,422	-62.9		277	18.3
40	27	21,793	-62.3		273	17.5
30	26	23,577	-60.4		269	22.2
25	23	24,729	-58.8		271	26.0
20	8	26,153	-56.1			
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Standard pressure surface (mb)	EL PASO, TEXAS 886 MB Number of observations	Dynamic height	Temperature	Relative humidity	Wind Direction	Wind Speed
SURFACE	31	1,193	2.9	77	360	2.7
1000	31	197				
950	31	618				
900	31	1,066				
850	31	1,531	6.3	53	350	4.5
800	31	2,027	5.1	51	294	2.9
750	31	2,555	2.7	47	264	7.4
700	31	3,107	-.2	43	255	9.9
650	31	3,692	-3.6	38	257	11.7
600	31	4,325	-7.4	32	264	13.8
550	31	4,990	-11.7		257	16.5
500	31	5,720	-16.7		254	17.7
450	31	6,495	-22.7		248	21.0
400	31	7,356	-29.5		250	22.5
350	31	8,294	-36.8		249	24.9
300	31	9,343	-44.8		[illegible]	29.9
250	31	10,543	-52.0		248	42.0
200	31	11,968	-57.3		248	52.1
175	30	12,809	-59.3		251	50.5
150	30	13,771	-61.3		254	47.2
125	30	14,896	-63.6		260	40.2
100	30	16,258	-66.4		260	31.1
80	30	17,603	-67.8		263	23.3
70	29	18,407	-66.8		265	19.4
60	29	19,338	-65.7		272	14.8
50	28	20,449	-63.8		283	10.5
40	26	21,823	-62.1		266	12.4
30	21	23,612	-59.1		259	21.8
25	21	24,760	-57.1		261	27.6
20	19	26,177	-55.5		260	36.3
15	14	28,007	-52.8		261	47.6
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Standard pressure surface (mb)	ELY, NEV. 813 MB Number of observations	Dynamic height	Temperature	Relative humidity	Wind Direction	Wind Speed
SURFACE	31	1,908	-8.6	67	192	8.7
1000	31	271				
950	31	682				
900	31	1,111				
850	31	1,559				
800	31	2,034	-1.3	53	194	6.8
750	31	2,555	.0	41	307	1.7
700	31	3,101	-2.3	37	314	5.4
650	31	3,686	-5.2	34	315	8.2
600	31	4,312	-8.9	33	315	10.7
550	31	4,975	-13.0	30	297	12.4
500	31	5,700	-17.8		300	11.9
450	31	6,473	-23.7		299	13.6
400	31	7,329	-30.2		303	12.4
350	31	8,264	-37.8		304	11.3
300	31	9,308	-46.4		317	10.7
250	31	10,496	-54.8		306	14.0
200	31	11,898	-60.9		303	17.3
175	31	12,729	-60.3		297	20.2
150	31	13,689	-60.8		300	20.8
125	30	14,824	-61.8		293	21.0
100	30	16,199	-63.5		[illegible]	19.8
80	30	17,568	-63.9		301	19.2
70	30	18,396	-63.8		290	15.0
60	30	19,333	-63.1		298	13.6
50	30	20,455	-63.1		304	12.0
40	29	21,828	-62.6		311	11.9
30	27	23,624	-60.7		306	10.9
25	26	24,758	-60.6		304	15.0
20	24	26,154	-59.7		297	17.3
15	16	27,947	-57.8			
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Standard pressure surface (mb)	FAIRBANKS, ALASKA 1000 MB Number of observations	Dynamic height	Temperature	Relative humidity	Wind Direction	Wind Speed
SURFACE	31	135	-21.2	76	321	1.0
1000	31	132			50	1.9
950	31	515	-14.5	60	87	4.9
900	31	929	-12.9	62	90	6.6
850	31	1,365	-12.7	60	103	4.7
800	31	1,828	-12.9	60	124	4.5
750	31	2,316	-14.5	57	138	2.1
700	31	2,839	-17.3	54	204	2.1
650	31	3,383	-20.7	53	223	2.5
600	31	3,979	-24.1	49	272	4.5
550	31	4,601	-28.2	48	286	6.4
500	31	5,286	-32.8		270	8.5
450	31	6,010	-38.2		280	9.5
400	31	6,820	-44.2		277	11.7
350	31	7,704	-49.9		269	15.7
300	31	8,700	-54.3		267	17.3
250	31	9,863	-55.8		265	23.1
200	31	11,285	-54.9		260	23.9
175	31	12,140	-54.3		263	26.8
150	30	13,133	-54.6		259	29.7
125	30	14,299	-54.7		258	34.4
100	29	15,737	-54.7		262	37.7
80	28	17,157	-55.4		258	40.6
70	28	18,006	-56.1		261	41.2
60	27	19,009	-55.7		263	41.4
50	25	20,165	-56.6		267	46.6
40	22	21,611	-56.9		266	46.8
30	21	23,431	-58.5		259	49.9
25	19	24,587	-58.8		268	50.3
20	16	26,005	-58.7		264	47.8
15	9	27,957	-58.5			
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Standard pressure surface (mb)	FLINT, MICH. 989 MB Number of observations	Dynamic height	Temperature	Relative humidity	Wind Direction	Wind Speed
SURFACE	30	234	-6.7	85	264	4.5
1000	30	142				
950	30	547	-5.5	70	281	10.3
900	30	967	-7.2	66	290	13.8
850	30	1,412	-7.6	55	289	15.9
800	30	1,882	-8.9	49	285	20.2
750	30	2,379	-10.0	43	287	24.1
700	30	2,911	-12.3	44	288	27.2
650	30	3,469	-15.2	44	287	29.7
600	30	4,076	-18.3	44	284	31.1
550	30	4,718	-22.3	44	287	31.7
500	30	5,415	-26.6		289	37.5
450	30	6,163	-31.7		286	39.1
400	30	6,992	-36.8	44	283	42.7
350	30	7,905	-42.8		282	47.6
300	30	8,931	-48.8		275	50.9
250	30	10,117	-52.9		275	55.8
200	30	11,547	-54.4		280	52.5
175	30	12,403	-54.3		279	50.3
150	30	13,389	-55.0		277	45.3
125	29	14,549	-56.4		282	35.9
100	29	15,959	-57.7		279	29.9
80	28	17,360	-58.9		274	26.0
70	28	18,199	-59.2		275	22.5
60	28	19,163	-59.7		270	18.8
50	27	20,307	-59.8		269	14.8
40	27	21,704	-59.3		253	10.5
30	27	23,510	-58.5		244	11.3
25	23	24,698	-57.1		182	3.5
20	17	26,170	-56.0		203	4.1
15	12	28,005	-54.2			
10						
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5						

Standard pressure surface (mb)	FORT WORTH, TEXAS 1001 MB Number of observations	Dynamic height	Temperature	Relative humidity	Wind Direction	Wind Speed
SURFACE	31	180	5.2	79	301	1.9
1000	31	187			352	3.9
950	31	611	7.0	66	274	4.7
900	31	1,053	7.0	59	282	5.6
850	31	1,522	6.1	57	273	9.3
800	31	2,018	4.6	52	279	12.2
750	31	2,542	2.2	51	284	15.9
700	31	3,097	-.6	47	287	18.8
650	31	3,686	-3.6	39	279	21.6
600	31	4,315	-7.4	37	275	26.0
550	31	4,983	-11.3		276	29.3
500	31	5,714	-16.1		274	33.4
450	31	6,493	-22.0		271	36.9
400	31	7,355	-28.5		270	40.6
350	31	8,298	-35.6		267	42.9
300	31	9,352	-43.5		263	51.1
250	31	10,556	-52.1		259	58.3
200	31	11,977	-58.8		263	67.6
175	31	12,811	-60.3		266	60.6
150	31	13,770	-61.4		268	51.9
125	31	14,894	-63.9		268	46.2
100	30	16,253	-66.2		273	37.7
80	29	17,603	-67.3		279	26.4
70	29	18,418	-66.2		282	20.4
60	27	19,351	-64.5		281	14.8
50	26	20,464	-63.2		285	11.9
40	24	21,844	-60.7		281	10.5
30	23	23,644	-57.6		273	12.8
25	23	24,796	-56.5		269	15.3
20	21	26,228	-54.2		266	21.6
15	17	28,076	-52.3		266	26.6
10	5	30,717	-45.6			
7						
5						

Standard pressure surface (mb)	GLASGOW, MONT. 936 MB Number of observations	Dynamic height	Temperature	Relative humidity	Wind Direction	Wind Speed
SURFACE	31	696	-6.1	81	311	1.0
1000	31	168				
950	31	573				
900	31	999	-2.6	61	287	10.9
850	31	1,453	-2.3	50	295	20.6
800	31	1,933	-3.9	50	299	25.6
750	31	2,439	-6.1	53	304	29.5
700	31	2,978	-9.2	57	306	34.2
650	31	3,545	-12.1	55	304	36.5
600	31	4,156	-15.2	52	304	39.4
550	31	4,806	-19.2	50	306	41.8
500	31	5,512	-23.7	48	305	46.4
450	31	6,266	-28.9	48	304	50.9
400	31	7,106	-35.1	46	304	51.9
350	31	8,022	-42.3		303	55.8
300	31	9,046	-49.6		304	61.2
250	31	10,221	-56.0		306	63.3
200	30	11,637	-58.5		308	60.8
175	30	12,476	-58.0		305	55.2
150	30	13,447	-57.9		306	47.6
125	29	14,592	-58.9		302	40.8
100	28	16,002	-59.8		303	37.9
80	27	17,402	-60.5		299	32.1
70	26	18,225	-60.4		300	28.6
60	26	19,182	-60.9		308	27.0
50	25	20,323	-61.1		302	19.2
40	20	21,790	-60.2		312	11.5
30	18	23,615	-59.4		309	7.8
25	17	24,768	-59.3		300	7.0
20	17	26,163	-59.8		301	8.9
15	10	28,026	-60.5			
10						
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5						

Standard pressure surface (mb)	GRAND JUNCTION, COLO. 858 MB Number of observations	Dynamic height	Temperature	Relative humidity	Wind Direction	Wind Speed
SURFACE	31	1,474	-5.2	74	113	2.3
1000	31	245				
950	31	655				
900	31	1,089				
850	31	1,544	-2.8	64	121	3.1
800	31	2,028	-.9	55	124	4.7
750	31	2,543	-1.8	49	207	3.3
700	30	3,087	-4.1	47	292	7.2
650	30	3,667	-6.6	[illegible]	307	11.9
600	30	4,290	-9.6	40	307	15.5
550	30	4,954	-13.6	35	313	18.8
500	30	5,676	-18.3		310	21.2
450	30	6,446	-24.2		310	20.6
400	30	7,301	-30.9		315	24.5
350	30	8,234	-38.3		314	24.3
300	30	9,275	-46.9		310	25.3
250	30	10,459	-55.7		305	28.0
200	30	11,861	-60.7		294	30.5
175	30	12,692	-60.3		288	29.0
150	[illegible]	13,654	-60.1		285	29.3
125	29	14,780	-62.0		281	30.3
100	29	16,154	-63.6		281	27.2
80	29	17,521	-64.2		284	25.8
70	28	18,357	-63.8		286	20.4
60	28	19,291	-63.5		282	16.9
50	28	20,411	-63.2		285	15.5
40	28	21,786	-62.4		291	[illegible]
30	27	23,562	-62.0		286	17.1
25	26	24,699	-60.7		284	22.3
20	22	26,069	-60.0		274	26.8
15	22	27,874	-58.2		274	33.8
10	19	30,504	-52.6		274	35.9
7	13	32,826	-48.5		265	53.0
5	10	35,019	-44.9			

See reference note at end of table

RAWINSONDE DATA

Average monthly values

DECEMBER 1962

GREAT FALLS, MONT.
889 MB

Standard pressure surface (mb.)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind Direction	Wind Speed
SURFACE	30	1,123	-1.1	64	233	11.7
1000	30	175				
950	30	589				
900	30	1,023				
850	30	1,482	1.8	52	246	22.3
800	30	1,969	-.4	53	268	21.2
750	30	2,479	-3.4	56	282	24.7
700	30	3,025	-6.4	58	286	27.8
650	30	3,599	-9.5	54	290	32.3
600	30	4,216	-13.4	53	291	34.0
550	30	4,865	-17.5	49	291	35.4
500	30	5,582	-22.0	44	293	39.2
450	30	6,338	-27.1	43	297	41.0
400	30	7,189	-33.4		296	46.4
350	30	8,114	-40.1		296	50.1
300	30	9,149	-47.6		298	53.6
250	30	10,335	-54.4		299	57.9
200	30	11,749	-58.8		302	49.2
175	30	12,586	-59.6		299	45.3
150	30	13,553	-58.7		297	41.2
125	28	14,677	-58.7		302	38.3
100	28	16,076	-59.6		303	34.6
80	26	17,478	-60.0		302	28.8
70	25	18,316	-60.6		307	25.5
60	24	19,289	-60.9		304	26.2
50	23	20,433	-61.3		315	20.6
40	21	21,857	-60.5		323	17.1
30	21	23,652	-60.2		310	16.9
25	19	24,785	-61.0		316	20.0
20	15	26,151	-61.3		303	23.7
15	12	27,978	-60.4		325	24.9
10	10	30,579	-57.6			
7	6	33,066	-54.2			
5	5	35,230	-51.9			

GREEN BAY, WIS.
991 MB

Standard pressure surface (mb.)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind Direction	Wind Speed
SURFACE	31	210	-7.8	79	294	4.1
1000	31	141				
950	31	541	-7.4	70	286	11.3
900	31	961	-8.4	67	299	13.8
850	31	1,404	-9.1	60	299	15.3
800	31	1,873	-10.0	56	292	17.7
750	31	2,367	-11.5	56	289	21.8
700	31	2,896	-13.5	56	289	26.0
650	31	3,453	-16.2	54	289	29.3
600	31	4,057	-19.1	50	289	33.6
550	31	4,695	-23.0	49	287	35.4
500	31	5,392	-26.8	46	284	37.9
450	31	6,141	-31.5	46	282	39.1
400	31	6,969	-37.2		279	40.6
350	31	7,881	-43.0		286	47.0
300	31	8,908	-48.2		283	51.9
250	31	10,097	-52.4		280	54.6
200	31	11,532	-54.2		280	53.2
175	31	12,389	-53.8		282	52.8
150	30	13,382	-54.6		281	51.3
125	30	14,545	-56.0		282	44.7
100	30	15,960	-57.3		277	41.8
80	30	17,368	-58.3		274	34.2
70	30	18,210	-59.1		273	35.4
60	30	19,170	-60.0		273	31.9
50	30	20,307	-60.3		271	28.0
40	30	21,698	-60.3		263	26.4
30	27	23,522	-59.0		263	21.8
25	24	24,687	-57.9		275	14.2
20	17	26,141	-57.0		262	13.2

GREENSBORO, N. C.
986 MB

Standard pressure surface (mb.)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind Direction	Wind Speed
SURFACE	31	273	-1.3	76	334	1.4
1000	31	164				
950	31	576	.7	61	326	5.8
900	31	1,009	.2	57	297	8.7
850	31	1,467	-.2	55	278	13.6
800	31	1,952	-.6	45	282	19.8
750	31	2,465	-2.9	44	280	24.7
700	31	3,010	-5.3	46	276	28.8
650	31	3,597	-8.0	41	273	32.3
600	31	4,208	-11.4		272	38.3
550	31	4,867	-15.1		271	44.1
500	31	5,586	-19.5		271	48.6
450	31	6,355	-24.8		270	51.7
400	31	7,208	-31.0		268	56.9
350	31	8,142	-37.7		269	61.6
300	31	9,189	-44.6		269	66.6
250	31	10,392	-51.2		269	68.6
200	31	11,827	-55.3		265	67.2
175	31	12,677	-56.5		264	61.0
150	30	13,654	-58.2		267	61.6
125	29	14,797	-61.0		269	44.9
100	29	16,175	-63.4		270	38.7
80	28	17,545	-63.1		268	25.6
70	28	18,375	-63.5		265	20.8
60	26	19,318	-62.6		260	13.2
50	26	20,447	-61.2		270	11.7
40	26	21,841	-59.1		259	10.9
30	26	23,654	-56.9		265	11.7
25	26	24,813	-55.7		271	10.3
20	26	26,241	-54.1		258	11.1
15	24	28,098	-51.2		264	15.7
10	12	30,801	-45.0			

GUAM, MARIANA IS.
998 MB

Standard pressure surface (mb.)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind Direction	Wind Speed
SURFACE	31	111	24.8	86	66	7.0
1000	31	91			68	8.4
950	31	546	22.7	80	73	16.5
900	31	1,012	19.8	79	80	16.1
850	31	1,503	17.6	68	85	13.2
800	31	2,021	15.7	55	90	9.5
750	31	2,568	13.5	46	91	8.5
700	31	3,145	10.6	39	101	8.4
650	31	3,759	7.2	43	101	8.2
600	31	4,413	3.6	40	100	7.4
550	31	5,110	-.7	40	115	6.6
500	31	5,870	-4.6		109	8.4
450	31	6,690	-9.3		112	10.5
400	31	7,595	-15.0		112	10.5
350	31	8,591	-21.8		111	5.4
300	31	9,707	-30.2		116	3.3
250	31	10,976	-40.5		178	3.1
200	30	12,455	-52.8		181	6.2
175	30	13,302	-59.9		170	6.8
150	30	14,246	-67.7		176	6.2
125	29	15,317	-75.9		176	5.8
100	23	16,583	-82.6		128	9.5
80	20	17,825	-81.9		111	12.0
70	20	18,577	-78.9		101	11.9
60	20	19,470	-71.7		96	11.5
50	19	20,568	-64.0		102	11.5
40	17	21,948	-60.2		84	20.2
30	15	23,763	-55.7		84	31.5
25	15	24,930	-53.2		88	32.6
20	15	26,381	-49.6		94	28.8
15	13	28,273	-47.3		80	22.3
10	6	30,975	-43.0			

HILO, HAWAII
1015 MB

Standard pressure surface (mb.)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind Direction	Wind Speed
SURFACE	31	11	19.1	84	235	4.3
1000	31	136	20.8	77	229	3.9
950	31	578	18.1	80	136	3.9
900	31	1,041	15.2	81	135	4.3
850	31	1,524	12.6	77	179	4.7
800	31	2,032	11.0	63	207	2.7
750	31	2,570	9.1	45	267	3.1
700	31	3,139	6.8	32	293	5.1
650	31	3,742	3.4		300	8.4
600	31	4,389	.0		299	11.1
550	31	5,076	-4.2		293	15.0
500	31	5,826	-8.9		292	19.8
450	31	6,629	-14.7		283	25.5
400	31	7,515	-21.0		282	30.9
350	31	8,488	-28.0		284	34.4
300	31	9,576	-36.0		285	42.6
250	31	10,819	-44.8		285	52.1
200	31	12,275	-55.3		287	57.1
175	31	13,116	-60.8		292	51.5
150	31	14,061	-66.8		288	52.8
125	31	15,144	-72.4		289	48.2
100	31	16,443	-76.4		290	33.4
80	31	17,728	-75.2		293	21.2
70	30	18,506	-71.4		303	10.3
60	30	19,424	-67.5		333	4.9
50	30	20,534	-62.9		87	4.7
40	30	21,922	-58.9		104	3.5
30	28	23,739	-55.2		57	4.1
25	27	24,913	-53.2		67	3.9
20	25	26,355	-51.8		54	2.9
15	24	28,224	-50.7		93	3.5
10	19	30,889	-50.0		229	8.4
7	11	33,290	-42.7		264	37.1
5	7	35,566	-33.0			

HUNTINGTON, W. VA.
990 MB

Standard pressure surface (mb.)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind Direction	Wind Speed
SURFACE	29	246	-2.8	79	245	2.5
1000	29	161				
950	29	568	-1.6	66	249	8.9
900	29	999	-2.4	61	261	14.2
850	29	1,452	-3.2	58	274	21.4
800	29	1,931	-4.6	53	276	24.3
750	29	2,437	-6.1	51	280	29.5
700	29	2,976	-8.2	53	280	34.0
650	29	3,543	-11.3	51	282	35.4
600	29	4,160	-14.5	48	281	37.9
550	29	4,808	-18.2	44	279	41.0
500	29	5,521	-22.5	39	276	48.0
450	29	6,277	-27.5	36	274	49.9
400	29	7,125	-32.8		272	57.5
350	29	8,053	-39.1		274	56.9
300	29	9,095	-45.8		276	60.0
250	29	10,292	-51.9		276	57.1
200	29	11,725	-55.2		274	54.6
175	29	12,576	-56.0		279	48.2
150	29	13,555	-57.1		280	39.8
125	29	14,703	-59.5		279	34.2
100	29	16,093	-61.6		281	31.1
80	27	17,472	-62.5		282	23.7
70	27	18,292	-62.0		280	20.8
60	27	19,251	-61.8		273	16.5
50	27	20,381	-61.1		268	12.8
40	26	21,776	-59.6		274	10.3
30	25	23,593	-57.2		266	11.5
25	24	24,750	-56.3		268	11.1
20	23	26,168	-54.8		258	13.8
15	15	28,002	-51.1			
10	7	30,673	-46.6			
7						

INTERNAT. FALLS, MINN.
974 MB

Standard pressure surface (mb.)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind Direction	Wind Speed
SURFACE	31	360	-13.2	69	299	2.9
1000	31	154				
950	31	542	-12.9	71	279	6.6
900	31	958	-12.8	69	286	12.6
850	31	1,394	-12.3	63	297	15.7
800	31	1,858	-12.2	59	302	17.9
750	31	2,351	-13.7	54	306	21.0
700	31	2,873	-15.4	45	304	22.7
650	31	3,425	-18.1	43	303	25.5
600	31	4,025	-21.1	42	302	29.0
550	31	4,659	-24.7	44	302	31.3
500	31	5,351	-28.9	44	302	32.6
450	31	6,092	-33.9		293	38.3
400	31	6,914	-39.3		292	42.7
350	31	7,819	-44.5		294	49.9
300	31	8,839	-50.0		294	53.8
250	31	10,021	-53.3		288	52.7
200	31	11,455	-53.9		286	52.3
175	31	12,313	-53.8		286	47.4
150	31	13,302	-54.7		286	46.4
125	30	14,477	-55.8		283	41.6
100	30	15,894	-57.0		283	38.9
80	29	17,322	-57.4		287	31.7
70	28	18,166	-57.8		287	29.9
60	25	19,124	-58.2		282	22.2
50	25	20,270	-59.1		281	20.8
40	23	21,705	-58.9		277	19.0
30	21	23,525	-59.3		281	17.9
25	20	24,660	-58.9		268	16.9
20	19	26,087	-58.2		253	9.3
15	16	28,001	-57.2		267	7.0
10	9	30,537	-54.3			

JACKSON, MISS.
1010 MB

Standard pressure surface (mb.)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind Direction	Wind Speed
SURFACE	31	94	4.6	88	357	1.0
1000	31	176	5.7	79	339	1.7
950	31	599	6.7	64	307	7.4
900	31	1,041	5.8	56	303	9.9
850	31	1,508	4.3	52	291	13.0
800	31	2,001	3.1	45	285	16.1
750	31	2,525	1.6	42	282	19.8
700	31	3,076	-.9	39	275	22.3
650	31	3,665	-3.9	37	280	26.8
600	31	4,293	-7.3	38	281	30.3
550	31	4,961	-11.5		285	34.0
500	31	5,690	-16.1		279	41.6
450	31	6,466	-21.5		274	39.2
400	31	7,333	-27.9		273	41.8
350	31	8,278	-35.0		265	45.9
300	31	9,336	-43.1		267	51.7
250	31	10,542	-51.5		268	58.3
200	31	11,971	-57.3		267	63.9
175	31	12,812	-59.2		270	52.8
150	31	13,773	-61.5		269	52.8
125	30	14,898	-64.3		273	43.5
100	29	16,256	-66.5		278	33.0
80	29	17,603	-66.4		275	21.2
70	29	18,420	-65.9		280	16.9
60	28	19,349	-64.6		282	12.8
50	27	20,469	-62.7		308	9.5
40	25	21,853	-60.2		292	6.8
30	25	23,660	-57.0		274	11.1
25	24	24,818	-55.6		274	11.3
20	23	26,246	-53.9		269	19.0
15	21	28,101	-51.2		270	27.6
10	14	30,756	-48.4			

JACKSONVILLE, FLA.
1020 MB

Standard pressure surface (mb.)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind Direction	Wind Speed
SURFACE	31	5	6.6	86	313	3.3
1000	31	171	8.9	72	312	6.0
950	31	596	8.9	59	311	[illegible].2
900	31	1,044	7.9	54	288	9.3
850	31	1,516	6.9	56	281	13.8
800	31	2,013	5.0	47	280	17.1
750	31	2,537	2.9	41	280	19.4
700	31	3,095	.3	40	272	24.3
650	31	3,686	-2.3	35	374	29.7
600	31	4,318	-5.5		273	35.6
550	31	4,992	-9.4		270	41.0
500	31	5,727	-14.2		270	44.7
450	31	6,514	-19.7		269	46.6
400	31	7,382	-26.1	37	272	56.0
350	31	[illegible],334	-33.1		274	56.7
300	31	9,400	-41.2		268	65.1
250	30	10,616	-49.8		270	68.4
200	30	12,052	-56.2		269	66.6
175	29	12,891	-59.3		272	62.6
150	29	13,850	-62.2		267	67.4
125	29	14,969	-65.0		270	53.4
100	29	16,317	-68.7		267	46.6
80	28	17,654	-68.7		267	28.2
70	28	18,459	-67.2		266	21.8
60	28	19,390	-64.6		268	16.7
50	28	20,510	-62.0		262	15.5
40	28	21,900	-58.8		259	13.6
30	26	23,716	-55.7		258	14.[illegible]
25	25	24,881	-53.9		260	14.2
20	23	26,320	-51.3		261	21.6
15	21	28,204	-47.9		256	30.1
10	17	30,909	-42.5		250	35.9
7	7	33,356	-37.3			

JOHNSTON IS., PACIFIC AREA
1015 MB

Standard pressure surface (mb.)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind Direction	Wind Speed
SURFACE	31	3	24.5	76	75	10.9
1000	31	129	23.5	77	76	13.2
950	31	579	19.9	81	80	15.0
900	31	1,041	16.8	79	83	12.4
850	31	1,526	14.1	71	84	11.1
800	31	2,038	13.9	38	78	9.5
750	31	2,583	11.6	29	61	7.6
700	31	3,155	9.1	21	46	6.0
650	31	3,765	5.9	20	34	4.7
600	31	4,416	2.2	20	359	5.2
550	31	5,105	-1.9	17	332	7.0
500	31	5,866	-6.6	18	333	7.2
450	31	6,680	-11.9	21	318	11.5
400	31	7,574	-18.0	21	316	15.2
350	31	8,558	-25.2	20	307	19.4
300	31	9,660	-33.4	20	292	22.2
250	30	10,914	-43.3		282	25.1
200	30	12,381	-54.5		282	29.9
175	30	13,224	-60.7		280	29.0
150	29	14,171	-67.5		284	27.4
125	28	15,250	-74.2		291	27.0
100	26	16,532	-79.1		303	22.3
80	21	17,787	-79.0		318	14.0
70	20	18,547	-75.8		332	8.2
60	19	19,454	-69.4		54	4.7
50	17	20,554	-64.3		82	8.7
40	16	21,929	-61.1		91	11.1
30	16	23,736	-56.2		85	15.3
25	15	24,906	-52.9		86	16.1
20	12	26,365	-51.6		76	16.3
15	8	28,254	-50.9			

KING SALMON, ALASKA
1006 MB

Standard pressure surface (mb.)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind Direction	Wind Speed
SURFACE	31	15	-11.5	70	28	5.6
1000	31	61			35	6.8
950	31	468	-6.7	62	51	8.4
900	31	883	-6.3	58	48	6.2
850	31	1,330	-7.1	55	47	2.9
800	31	1,801	-9.1	51	71	2.1
750	31	2,299	-11.7	53	56	2.7
700	31	2,824	-14.7	51	48	2.5
650	31	3,379	-17.9	45	26	2.3
600	31	3,976	-21.7	40	4	2.1
550	31	4,608	-26.0		314	1.4
500	31	5,295	-30.7		318	2.5
450	31	6,032	-35.9		288	3.7
400	31	6,844	-41.6		271	6.0
350	31	7,739	-47.0		241	9.7
300	31	8,748	-51.6		235	15.2
250	31	9,924	-53.9		235	16.7
200	29	11,358	-52.4		231	20.0
175	28	12,213	-51.6		236	21.0
150	28	13,212	-51.8		232	22.2
125	25	14,385	-51.4		236	24.5
100	24	15,839	-51.2		233	26.0
80	23	17,297	-51.9		236	29.3
70	23	18,167	-52.1		238	30.7
60	22	19,152	-52.4		239	28.8
50	18	20,323	-52.1		238	29.1
40	18	21,763	-53.6		234	28.0
30	17	23,605	-56.7		232	28.8
25	15	24,742	-57.7		240	29.9
20	10	26,120	-60.1		236	34.8
15						
10						

KOTZEBUE, ALASKA
1018 MB

Standard pressure surface (mb.)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind Direction	Wind Speed
SURFACE	31	5	-19.5	77	88	4.7
1000	31	140	-16.4	71	86	3.9
950	31	533	-12.4	66	85	2.9
900	31	943	-11.9	60	33	1.2
850	31	1,380	-12.0	57	14	1.7
800	31	1,843	-13.4	53	348	2.3
750	31	2,328	-15.1	48	337	2.9
700	31	2,851	-17.8	44	322	2.7
650	31	3,393	-20.7	43	312	6.2
600	31	3,989	-24.7	41	311	7.0
550	31	4,612	-28.8	40	305	8.5
500	31	5,293	-33.4		289	9.3
450	31	6,016	-38.9		285	10.5
400	31	6,822	-44.7		273	12.4
350	31	7,704	-50.7		269	13.4
300	31	8,695	-56.0		262	16.1
250	31	9,844	-59.4		262	15.7
200	31	11,242	-58.2		244	21.2
175	31	12,084	-57.4		238	25.3
150	30	13,063	-56.9		245	28.0
125	29	14,219	-56.8		240	31.1
100	28	15,631	-57.8		242	37.3
80	28	17,036	-58.3		239	44.7
70	28	17,880	-58.9		242	47.0
60	28	18,842	-59.5		240	51.1
50	26	19,970	-60.7		245	55.2
40	24	21,355	-61.4		250	59.8
30	18	23,133	-61.4		259	76.7
25	17	24,241	-62.4		265	82.0
20	12	25,681	-62.3		266	92.9

LAKE CHARLES, LA.
1021 MB

Standard pressure surface (mb.)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind Direction	Wind Speed
SURFACE	28	5	8.4	92	41	4.1
1000	28	178	9.8	74	40	3.9
950	28	606	9.3	66	302	3.3
900	28	1,053	8.8	62	286	6.8
850	28	1,526	7.6	61	278	10.3
800	28	2,024	5.7	56	271	14.6
750	28	2,551	4.1	45	276	17.1
700	28	3,109	1.6	41	278	19.6
650	28	3,704	-1.4	36	276	24.3
600	28	4,338	-5.0		273	28.6
550	28	5,011	-9.4		273	31.5
500	28	5,748	-14.1		270	35.6
450	28	6,538	-19.7		269	40.4
400	28	7,403	-26.5		269	45.7
350	28	8,353	-33.8		264	51.3
300	28	9,416	-41.8		266	59.8
250	28	10,628	-50.4		266	69.4
200	28	12,055	-58.2		266	74.8
175	28	12,890	-60.7		266	69.0
150	28	13,845	-62.5		265	61.0
125	28	14,961	-65.4		264	53.4
100	28	16,307	-68.8		264	43.5
80	26	17,642	-69.5		272	22.9
70	25	18,454	-67.7		274	16.5
60	25	19,374	-65.9		272	12.6
50	25	20,489	-62.9		279	11.1
40	24	21,872	-60.3		272	10.1
30	22	23,678	-57.4		262	12.6
25	19	24,846	-55.4		267	18.1
20	14	26,276	-52.8		269	25.5
15	9	28,133	-50.3			
10	5	30,815	-45.8			

LANDER, WYO.
830 MB

Standard pressure surface (mb.)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind Direction	Wind Speed
SURFACE	31	1,696	-5.9	68	228	1.0
1000	31	215				
950	31	623				
900	31	1,056				
850	31	1,510				
800	31	1,991	-.4	45	278	.6
750	31	2,502	-1.4	41	314	5.2
700	31	3,054	-4.0	41	306	13.8
650	31	3,627	-7.3	40	308	19.4
600	31	4,255	-10.7	38	308	26.6
550	31	4,913	-14.8	37	308	33.0
500	31	5,635	-19.3	33	295	36.7
450	31	6,402	-24.9	32	300	39.8
400	31	7,257	-31.4	29	301	42.2
350	31	8,188	-38.9		304	45.9
300	31	9,227	-47.0		302	51.5
250	31	10,412	-55.3		305	47.8
200	31	11,815	-61.0		305	47.6
175	31	12,645	-60.7		300	44.5
150	31	13,608	-60.0		295	42.9
125	31	14,745	-60.2		298	38.1
100	30	16,130	-61.9		295	29.0
80	29	17,518	-62.2		288	26.8
70	29	18,344	-62.2		292	26.4
60	28	19,303	-62.3		298	22.2
50	27	20,435	-62.0		298	17.3
40	22	21,863	-61.0		326	5.8
30	21	23,670	-60.0		8	2.5
25	17	24,799	-60.2		355	1.9
20	9	26,243	-59.6			
15	5	28,048	-60.2			

LAS VEGAS, NEV.
945 MB

Standard pressure surface (mb.)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind Direction	Wind Speed
SURFACE	31	660	3.0	56	254	3.1
1000	31	194				
950	31	613				
900	31	1,059	8.8	34	359	4.3
850	31	1,530	6.8	33	6	9.3
800	31	2,026	4.5	35	15	7.0
750	31	2,549	2.3	31	11	4.9
700	31	[illegible],104	-.4	29	2	3.7
650	31	[illegible],687	-3.7		346	3.3
600	31	4,321	-7.5		329	4.1
550	31	4,985	-12.3		313	5.1
500	31	5,715	-17.4		314	7.2
450	31	6,486	-23.4		318	7.6
400	31	7,346	-30.0		325	8.7
350	31	8,282	-37.5		329	8.5
300	31	9,327	-45.8		340	11.1
250	31	10,518	-53.5		325	13.4
200	31	11,930	-58.8		310	21.2
175	31	12,767	-59.1		304	20.2
150	31	13,731	-60.2		285	20.2
125	31	14,862	-62.4		280	20.2
100	31	16,233	-63.9		284	20.8
80	31	17,599	-64.2		282	16.7
70	30	18,417	-64.4		280	14.0
60	29	19,361	-64.1		289	13.8
50	28	20,475	-62.9		294	12.0
40	28	21,853	-61.9		299	10.5
30	28	23,638	-60.3		299	13.8
25	28	24,777	-59.2		298	14.4
20	25	26,184	-57.9		281	20.4
15	17	28,015	-55.5		277	30.3

See reference note at end of table

RAWINSONDE DATA

Average monthly values

DECEMBER 1962

LIHUE, HAWAII
1012 MB

Standard pressure surface (mb.)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind	
					Direction	Speed
SURFACE	31	36	19.8	81	286	1.4
1000	31	137	21.0	73	315	1.0
950	31	582	18.0	73	288	.8
900	31	1,041	14.7	75	258	6.0
850	31	1,523	12.2	70	279	4.9
800	31	2,030	10.5	54	269	5.4
750	31	2,563	8.8	33	287	10.7
700	31	3,134	6.3	31	281	14.0
650	31	3,735	2.8	29	279	16.5
600	31	4,382	- .8		281	18.1
550	31	5,065	- 4.8		281	21.2
500	31	5,815	- 9.7		280	24.5
450	31	6,616	-15.3		287	28.4
400	31	7,499	-21.7		286	32.3
350	31	8,468	-28.8		287	35.8
300	31	9,554	-36.4		288	45.3
250	31	10,794	-45.6		287	50.9
200	31	12,248	-55.2		287	59.7
175	31	13,090	-60.6		287	56.5
150	31	14,039	-65.3		287	49.2
125	31	15,136	-70.1		287	37.7
100	29	16,448	-74.9		284	27.2
80	28	17,746	-74.3		295	15.2
70	28	18,528	-70.9		300	5.6
60	27	19,449	-67.1		360	2.1
50	27	20,561	-62.8		96	3.9
40	27	21,949	-58.9		81	1.4
30	26	23,774	-55.2		14	3.3
25	25	24,942	-52.8		20	4.5
20	24	26,390	-51.7		59	3.3
15	22	28,255	-51.2		70	2.5
10	22	30,896	-50.5		213	9.3
7	16	33,253	-43.3		255	24.3
5	12	35,555	-35.2			

LITTLE ROCK, ARK.
1013 MB

Standard pressure surface (mb.)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind	
					Direction	Speed
SURFACE	31	79	2.3	77	333	2.5
1000	31	181	3.2	68	316	3.1
950	31	599	3.6	59	297	8.4
900	31	1,038	2.9	56	295	11.1
850	31	1,500	2.0	49	295	15.0
800	31	1,989	1.1	44	292	19.0
750	31	2,505	- 1.1	41	288	22.2
700	31	3,055	- 3.6	38	286	24.9
650	31	3,631	- 6.2	36	285	30.5
600	31	4,262	- 9.5	35	292	36.3
550	31	4,922	-13.5		287	40.6
500	31	5,650	-18.0		292	45.3
450	31	6,419	-23.5		283	35.9
400	31	7,280	-29.9		278	41.2
350	31	8,217	-36.8		279	36.5
300	31	9,267	-44.6		271	45.9
250	31	10,467	-51.8		267	57.3
200	31	11,891	-57.3		266	61.0
175	31	12,733	-57.9		265	60.2
150	31	13,701	-59.8		264	55.4
125	31	14,833	-62.4		275	42.2
100	29	16,206	-64.1		275	34.8
80	28	17,573	-64.3		277	25.8
70	28	18,384	-64.0		273	22.3
60	28	19,337	-63.2		276	17.1
50	28	20,458	-62.3		271	13.4
40	28	21,846	-60.3		266	13.2
30	22	23,646	-58.3		260	15.7
25	21	24,797	-56.5		259	16.1
20	15	26,219	-54.6			
15	7	28,069	-50.9			
10						
7						
5						

MCGRATH, ALASKA
1003 MB

Standard pressure surface (mb.)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind	
					Direction	Speed
SURFACE	31	103	-21.9	67	349	1.4
1000	31	122			27	3.5
950	31	509	-13.8	64	27	11.9
900	31	921	-12.0	61	48	11.9
850	31	1,360	-10.8	60	58	12.0
800	31	1,826	-11.6	56	53	8.7
750	31	2,315	-13.3	53	53	7.2
700	31	2,842	-16.0	53	42	5.8
650	31	3,388	-19.3	51	31	5.1
600	31	3,987	-23.0	50	29	4.3
550	31	4,609	-27.1	50	26	4.3
500	31	5,300	-31.8	48	359	4.9
450	31	6,026	-36.8		356	2.7
400	31	6,842	-42.6		335	4.5
350	31	7,732	-48.4		309	3.9
300	31	8,733	-54.1		276	4.9
250	31	9,896	-56.0		253	9.9
200	31	11,321	-54.2		246	17.7
175	31	12,177	-54.1		245	22.2
150	31	13,167	-53.7		243	25.5
125	29	14,340	-54.0		245	30.7
100	29	15,771	-53.7		249	33.8
80	27	17,210	-54.6		250	39.4
70	27	18,061	-55.1		254	41.8
60	25	19,032	-55.6		253	45.7
50	23	20,213	-56.5		257	50.5
40	21	21,632	-57.4		264	54.6
30	17	23,475	-59.0		260	60.2
25	15	24,594	-59.9		255	60.0
20	13	26,015	-60.2		244	56.0
15	5	27,935	-58.8			
10						
7						
5						

MAJURO, MARSHALL IS.
1010 MB

Standard pressure surface (mb.)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind	
					Direction	Speed
SURFACE	31	3	27.2	81	79	10.7
1000	31	89	26.5	81	75	12.6
950	31	536	23.2	81	74	16.5
900	31	1,013	20.0	79	81	18.3
850	31	1,505	17.1	77	86	17.3
800	31	2,023	15.6	64	88	15.7
750	31	2,570	13.2	56	90	15.3
700	31	3,149	10.2	53	89	14.4
650	31	3,764	6.7	51	86	14.8
600	31	4,417	2.9	51	94	15.2
550	31	5,110	- .9	48	92	16.9
500	31	5,874	- 5.1	47	91	18.7
450	31	6,695	- 9.8	39	84	18.8
400	31	7,597	-15.4		85	18.3
350	31	8,591	-22.4		76	12.2
300	31	9,704	-30.9		98	8.0
250	31	10,971	-41.1		146	7.0
200	31	12,448	-53.5		188	5.1
175	31	13,294	-60.5		190	3.7
150	31	14,237	-67.9		136	.6
125	31	15,313	-75.6		65	2.5
100	31	16,580	-82.6		75	9.3
80	28	17,821	-82.3		87	11.7
70	26	18,572	-77.2		83	4.7
60	26	19,470	-70.9		87	1.9
50	26	20,566	-66.1		79	14.4
40	26	21,935	-61.1		88	37.3
30	26	23,746	-55.8		90	51.1
25	25	24,913	-52.3		89	52.3
20	22	26,370	-48.9		93	51.9
15	18	28,278	-45.4		139	4.9
10	13	31,021	-40.4		262	43.5
7	7	33,473	-37.8			
5						

MEDFORD, OREG.
975 MB

Standard pressure surface (mb.)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind	
					Direction	Speed
SURFACE	30	401	2.0	93		.0
1000	30	196				
950	30	614	3.2	80	195	.6
900	30	1,054	5.7	65	148	5.6
850	30	1,521	5.4	47	182	6.6
800	30	2,015	3.3	49	219	8.7
750	30	2,534	.9	44	242	12.0
700	30	3,089	- 1.9	42	258	12.6
650	30	3,672	- 5.2	41	268	14.2
600	30	4,300	- 8.9	39	264	15.9
550	30	4,963	-13.5	39	263	17.1
500	30	5,688	-18.2	36	260	20.0
450	30	6,461	-23.8		259	20.4
400	30	7,317	-30.3	37	261	20.8
350	30	8,253	-37.8		262	22.5
300	30	9,298	-46.0		264	24.7
250	30	10,490	-54.2		284	23.3
200	30	11,896	-60.9		286	23.7
175	29	12,732	-60.8		286	26.4
150	29	13,692	-60.4		287	25.5
125	29	14,825	-61.2		287	22.3
100	28	16,212	-62.4		286	19.8
80	28	17,589	-62.7		299	16.3
70	28	18,417	-62.6		297	12.6
60	28	19,364	-62.4		309	12.0
50	27	20,486	-62.0		314	11.5
40	27	21,868	-61.4		329	12.2
30	26	23,664	-60.9		330	13.4
25	26	24,800	-60.8		332	14.6
20	25	26,187	-60.6		328	19.6
15	23	27,980	-59.0		320	22.5
10	20	30,542	-55.5		314	28.2
7	13	32,843	-50.4		290	39.4
5	6	34,993	-47.7			

MIAMI, FLA.
1019 MB

Standard pressure surface (mb.)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind	
					Direction	Speed
SURFACE	31	4	13.9	86	335	3.1
1000	31	166	15.8	73	356	5.1
950	31	602	14.3	68	350	2.9
900	31	1,058	12.5	64	275	3.7
850	31	1,536	10.5	61	268	5.8
800	31	2,039	8.5	52	271	8.9
750	31	2,571	7.0	37	275	12.6
700	31	3,137	4.9	29	269	17.1
650	31	3,736	1.9		271	20.8
600	31	4,380	- 2.0		271	25.1
550	31	5,056	- 6.1		268	27.0
500	31	5,807	-11.0		266	31.9
450	31	6,600	-16.6		266	37.7
400	31	7,485	-22.9		266	43.9
350	31	8,450	-30.0		262	50.5
300	31	9,528	-38.4		264	54.6
250	31	10,760	-46.8		264	62.8
200	31	12,208	-56.1		264	63.9
175	31	13,048	-60.8		264	63.1
150	31	13,998	-65.0		263	58.3
125	31	15,098	-69.4		260	53.6
100	31	16,418	-73.0		262	43.3
80	30	17,720	-73.3		259	29.9
70	30	18,517	-71.2		261	17.5
60	29	19,424	-67.3		248	11.5
50	29	20,535	-62.8		253	8.5
40	29	21,924	-58.4		272	8.5
30	29	23,748	-55.0		271	10.3
25	26	24,922	-52.5		271	13.8
20	24	26,370	-49.9		276	14.6
15	22	28,261	-47.0		266	15.7
10	15	30,992	-43.3			
7						
5						

MIDLAND, TEXAS
920 MB

Standard pressure surface (mb.)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind	
					Direction	Speed
SURFACE	31	874	2.2	80		.0
1000	31	188				
950	31	608				
900	31	1,048	5.7	61	246	.6
850	31	1,518	7.1	50	266	2.7
800	31	2,016	6.0	45	255	5.2
750	31	2,541	3.5	45	261	9.7
700	31	3,100	.8	38	260	14.4
650	31	3,690	- 2.8	36	260	15.9
600	31	4,322	- 6.6		263	18.3
550	31	4,990	-10.8		265	22.9
500	31	5,722	-15.8		265	23.7
450	31	6,498	-21.8		265	27.0
400	31	7,363	-28.4		262	29.7
350	31	8,306	-35.4		263	33.2
300	31	9,361	-43.3		258	42.4
250	31	10,567	-51.3		254	58.7
200	30	11,991	-58.4		252	66.3
175	30	12,827	-60.1		257	66.6
150	29	13,782	-61.3		259	58.3
125	29	14,908	-63.5		258	46.8
100	28	16,272	-66.3		260	38.5
80	28	17,618	-67.3		266	29.9
70	28	18,431	-66.4		265	25.6
60	28	19,361	-65.3		266	21.2
50	28	20,475	-63.5		265	16.9
40	27	21,849	-61.5		264	19.2
30	27	23,644	-58.6		261	23.1
25	27	24,795	-56.9		259	29.1
20	26	26,214	-55.4		261	35.8
15	25	28,059	-53.0		259	49.0
10	24	30,694	-48.0		256	65.5
7	11	33,105	-43.2			
5						

MONTGOMERY, ALA.
1014 MB

Standard pressure surface (mb.)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind	
					Direction	Speed
SURFACE	31	61	3.1	76	328	1.7
1000	31	175	5.3	66	323	1.9
950	31	596	6.8	55	295	7.4
900	31	1,041	6.2	51	294	11.9
850	31	1,509	5.1	46	281	17.5
800	31	2,003	3.3	44	280	22.9
750	31	2,525	1.3	43	278	28.0
700	31	3,078	- 1.0	39	277	31.9
650	31	3,664	- 3.6	34	275	36.5
600	31	4,295	- 7.2	33	268	37.7
550	31	4,964	-11.3		271	49.7
500	31	5,694	-15.5		271	54.8
450	31	6,476	-21.1		272	60.4
400	31	7,341	-27.7		269	57.5
350	31	8,289	-34.5		268	67.0
300	31	9,350	-42.2		268	74.0
250	31	10,561	-50.1		268	77.1
200	31	11,997	-56.6		268	82.8
175	31	12,841	-58.2		266	81.0
150	31	13,807	-61.0		268	72.7
125	31	14,934	-63.8		270	65.1
100	31	16,295	-66.3		267	49.7
80	29	17,639	-66.9		263	33.6
70	29	18,454	-65.8		265	26.4
60	29	19,387	-64.1		265	21.2
50	28	20,507	-62.3		265	18.5
40	27	21,891	-59.5		263	18.3
30	26	23,703	-56.4		259	16.5
25	24	24,861	-54.8		259	18.7
20	23	26,292	-52.9		261	23.9
15	14	28,141	-50.5			
10						
7						
5						

NANTUCKET, MASS.
1014 MB

Standard pressure surface (mb.)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind	
					Direction	Speed
SURFACE	31	14	.0	80	305	3.5
1000	31	122			300	4.1
950	31	528	- 1.3	70	276	8.0
900	31	961	- 3.3	65	254	9.3
850	31	1,412	- 4.9	61	258	13.6
800	31	1,888	- 6.0	54	259	18.3
750	31	2,393	- 8.0	50	261	22.2
700	31	2,926	-10.2	42	261	25.8
650	31	3,514	-12.5	41	263	30.5
600	31	4,103	-15.4	39	261	35.9
550	31	4,753	-18.9	37	261	41.2
500	31	5,459	-23.5		261	48.0
450	31	6,217	-28.7		259	50.3
400	31	7,056	-34.2		257	55.6
350	31	7,979	-40.1		259	61.0
300	30	9,017	-46.3		262	65.1
250	30	10,214	-52.0		263	60.6
200	30	11,648	-54.9		265	57.7
175	29	12,515	-54.7		261	55.4
150	29	13,503	-55.3		263	51.9
125	26	14,673	-57.4		268	39.1
100	26	16,079	-58.4		263	31.7
80	25	17,480	-58.6		262	23.3
70	25	18,321	-58.9		260	18.5
60	25	19,288	-58.4		261	15.3
50	25	20,435	-58.3		257	10.7
40	24	21,840	-57.9		243	7.8
30	24	23,660	-56.6		214	4.5
25	24	24,816	-56.0		212	5.1
20	23	26,235	-55.2		206	4.3
15	19	28,070	-53.5		227	9.7
10	19	30,696	-50.3		254	23.3
7	14	33,058	-44.2			
5	7	35,473	-35.6			

NASHVILLE, TENN.
1000 MB

Standard pressure surface (mb.)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind	
					Direction	Speed
SURFACE	31	177	- 1.3	88	267	1.7
1000	31	173			354	1.9
950	31	587	1.0	62	281	7.8
900	31	1,019		58	287	11.5
850	31	1,477	- .7	52	287	17.3
800	31	1,961	- 1.6	45	285	20.8
750	31	2,475	- 3.7	42	283	24.5
700	31	3,016	- 6.2	43	281	27.4
650	31	3,593	- 9.0	44	280	30.3
600	31	4,209	-12.1	43	279	36.5
550	31	4,868	-15.8	37	279	41.4
500	31	5,584	-20.1	35	275	45.7
450	31	6,357	-25.1		274	47.0
400	31	7,204	-30.6		276	51.7
350	31	8,140	-37.3		275	50.3
300	31	9,189	-44.7		272	59.1
250	31	10,390	-51.6		271	56.3
200	31	11,822	-56.2		276	56.0
175	31	12,669	-57.3		271	55.8
150	30	13,635	-58.8		282	51.9
125	29	14,785	-60.8		278	43.7
100	28	16,163	-63.0		283	32.6
80	27	17,522	-64.0		283	23.9
70	27	18,343	-63.5		287	19.0
60	25	19,286	-62.9		286	14.4
50	25	20,411	-61.7		293	10.9
40	24	21,795	-60.0		294	5.2
30	23	23,605	-57.8		265	5.6
25	23	24,758	-56.3		253	6.6
20	23	26,182	-54.3		268	10.1
15	22	28,038	-52.1		271	12.6
10	19	30,703	-47.2		272	24.5
7	18	33,089	-43.5		263	36.5
5	14	35,378	-38.9			

N. Y. INT. AP, IDLEWILD
1017 MB

Standard pressure surface (mb.)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind	
					Direction	Speed
SURFACE	31	5	- 1.7	64	317	7.6
1000	31	140	- 2.0	58	327	7.8
950	31	549	- 3.3	56	310	8.0
900	31	974	- 4.3	55	296	10.9
850	31	1,424	- 5.5	50	287	13.4
800	31	1,898	- 6.7	47	278	15.7
750	31	2,404	- 8.5	47	271	20.2
700	31	2,934	-10.5	45	272	23.5
650	31	3,502	-12.8	44	271	27.2
600	31	4,110	-16.0	41	268	34.2
550	31	4,762	-19.1	42	266	38.3
500	31	5,466	-23.5	38	264	42.7
450	31	6,226	-28.6		261	49.9
400	31	7,063	-34.6		261	54.0
350	31	7,983	-40.6		262	56.7
300	31	9,020	-46.3		265	59.5
250	31	10,217	-51.3		263	62.4
200	31	11,655	-54.1		266	59.3
175	30	12,518	-54.6		265	61.8
150	29	13,499	-55.7		264	58.9
125	28	14,648	-57.2		265	48.2
100	28	16,053	-58.9		264	35.4
80	27	17,449	-59.7		259	29.5
70	27	18,290	-59.6		260	25.1
60	26	19,250	-59.0		260	20.0
50	25	20,397	-58.3		257	15.0
40	25	21,804	-57.4		250	8.4
30	23	23,631	-55.3		241	7.8
25	21	24,790	-55.8		242	5.1
20	19	26,210	-54.5		81	3.9
15	11	28,056	-53.8			
10						
7						
5						

NOME, ALASKA
1017 MB

Standard pressure surface (mb.)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind	
					Direction	Speed
SURFACE	31	7	-17.0	76	46	4.3
1000	31	134	-12.1	64	58	4.9
950	31	535	-10.2	59	59	5.2
900	31	946	-10.1	51	34	5.4
850	31	1,386	-10.5	46	2	5.4
800	31	1,852	-12.0	44	343	7.0
750	31	2,338	-14.2	41	346	8.2
700	31	2,864	-17.0	41	334	6.8
650	31	3,410	-19.9		324	5.8
600	31	4,006	-23.7	38	315	6.4
550	31	4,634	-28.0		314	7.2
500	31	5,313	-32.9		298	8.2
450	31	6,042	-38.3		305	8.2
400	31	6,847	-44.2		317	8.0
350	31	7,730	-50.3		293	5.4
300	31	8,724	-55.6		269	9.9
250	31	9,877	-58.5		254	13.0
200	30	11,291	-57.4		239	18.8
175	30	12,140	-56.3		236	23.3
150	30	13,117	-55.7		243	27.4
125	29	14,275	-55.8		243	30.5
100	29	15,692	-56.2		242	35.8
80	29	17,106	-57.2		245	42.0
70	29	17,956	-57.3		250	45.7
60	28	18,923	-57.4		250	51.9
50	28	20,075	-57.4		257	54.2
40	26	21,486	-58.1		261	64.3
30	21	23,298	-58.9		266	72.9
25	21	24,442	-58.7		269	81.8
20	19	25,868	-58.5		274	102.8
15	11	27,777	-58.2			
10						
7						
5						

NORFOLK, VA.
1018 MB

Standard pressure surface (mb.)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind	
					Direction	Speed
SURFACE	31	9	1.0	76	320	4.7
1000	31	149	1.0	66	349	5.8
950	31	558	.8	66	328	8.9
900	31	996	.1	63	307	11.1
850	31	1,453	- 1.3	57	288	15.0
800	31	1,936	- 2.1	51	279	19.0
750	31	2,448	- 3.5	42	272	23.3
700	31	2,992	- 5.5	39	270	27.4
650	31	3,567	- 8.1	41	270	34.0
600	31	4,189	-11.5	41	268	35.8
550	31	4,846	-15.3	40	270	40.8
500	31	5,565	-19.7	39	267	46.0
450	31	6,333	-25.0	39	262	49.4
400	31	7,186	-31.1	39	261	53.2
350	31	8,119	-37.7		260	57.5
300	31	9,165	-44.8		262	61.6
250	31	10,368	-51.0		271	60.6
200	31	11,805	-54.6		269	66.8
175	31	12,658	-55.6		271	64.5
150	31	13,636	-57.4		267	61.8
125	31	14,781	-59.8		268	54.2
100	31	16,168	-61.9		268	47.4
80	31	17,548	-62.6		265	34.4
70	31	18,377	-62.1		262	29.0
60	30	19,327	-61.0		265	23.1
50	30	20,464	-59.7		260	19.6
40	30	21,863	-58.1		245	15.5
30	30	23,684	-56.0		252	12.0
25	29	24,846	-54.7		257	8.9
20	26	26,280	-52.8		258	8.0
15	20	28,166	-50.7		232	15.5
10						
7						
5						

NORTH PLATTE, NEBR.
920 MB

Standard pressure surface (mb.)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind	
					Direction	Speed
SURFACE	31	848	- 6.4	77	319	4.1
1000	31	188				
950	31	595				
900	31	1,018	- 2.3	64	317	6.8
850	31	1,476	- .1	47	310	12.8
800	31	1,960	- 1.4	42	311	18.3
750	31	2,471	- 3.7	43	309	21.0
700	31	3,015	- 6.7	44	308	24.9
650	31	3,584	-10.1	47	304	27.8
600	31	4,203	-13.3	44	306	29.9
550	31	4,855	-16.9	40	303	31.9
500	31	5,570	-21.4	38	302	33.4
450	31	6,333	-27.0	37	303	37.3
400	31	7,178	-33.2		299	42.2
350	31	8,103	-40.1		293	35.9
300	31	9,137	-48.0		283	33.4
250	31	10,320	-55.3		278	38.7
200	31	11,726	-59.3		276	41.2
175	31	12,564	-58.6		273	40.6
150	31	13,532	-59.3		268	40.6
125	31	14,671	-60.9		272	36.1
100	31	16,051	-62.3		271	32.3
80	31	17,430	-62.2		273	29.0
70	31	18,252	-62.3		277	22.3
60	31	19,206	-62.4		275	22.7
50	31	20,330	-63.0		278	21.0
40	31	21,705	-62.6		276	16.3
30	30	23,492	-61.4		272	16.1
25	29	24,624	-60.4		266	15.9
20	29	26,018	-59.6		265	14.0
15	26	27,813	-57.8		265	17.9
10	22	30,397	-53.0		262	17.5
7	15	32,865	-48.4		251	15.2
5	12	35,145	-43.6			

OAKLAND, CALIF.
1020 MB

Standard pressure surface (mb.)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind	
					Direction	Speed
SURFACE	31	6	8.2	87	120	2.1
1000	31	169	9.5	78	104	3.3
950	31	598	10.6	64	74	4.1
900	31	1,047	10.7	48	82	1.2
850	31	1,523	9.0	43	266	1.6
800	31	2,023	6.5	40	244	3.1
750	31	2,548	3.9	38	256	4.1
700	31	3,107	.5	38	259	4.5
650	31	3,694	- 3.3	37	258	5.2
600	31	4,327	- 7.4	35	269	6.2
550	31	4,991	-12.0	34	273	7.8
500	31	5,722	-17.0		273	8.4
450	31	6,495	-22.8		262	9.7
400	31	7,358	-29.5		270	11.1
350	31	8,296	-36.9		279	13.2
300	31	9,344	-45.4		284	13.6
250	31	10,537	-53.8		300	17.1
200	31	11,949	-59.8		297	23.5
175	31	12,783	-60.3		295	23.9
150	31	13,743	-60.7		289	22.0
125	31	14,874	-62.5		282	19.8
100	30	16,244	-63.5		282	18.1
80	29	17,615	-63.6		288	14.2
70	29	18,441	-63.4		277	12.0
60	28	19,379	-63.0		305	9.7
50	28	20,503	-62.3		309	8.2
40	28	21,883	-61.4		321	8.5
30	26	23,674	-59.8		316	13.0
25	23	24,816	-59.5		318	15.2
20	22	26,214	-59.2		313	19.0
15	22	28,024	-57.0		297	21.2
10	21	30,630	-52.0		283	29.9
7	19	32,966	-47.5		270	42.4
5	6	35,278	-41.6			

See reference note at end of table

RAWINSONDE DATA

Average monthly values

DECEMBER 1962

Standard pressure surface (mb)	OKLAHOMA CITY, OKLA. 976 MB						OLYMPIA, WASH. 1014 MB						OMAHA, NEBR. 972 MB						PEORIA, ILL. 996 MB						PITTSBURGH, PA. 976 MB					
	Number of observations	Dynamic height	Temperature	Relative humidity	Wind Direction	Wind Speed	Number of observations	Dynamic height	Temperature	Relative humidity	Wind Direction	Wind Speed	Number of observations	Dynamic height	Temperature	Relative humidity	Wind Direction	Wind Speed	Number of observations	Dynamic height	Temperature	Relative humidity	Wind Direction	Wind Speed	Number of observations	Dynamic height	Temperature	Relative humidity	Wind Direction	Wind Speed
SURFACE	31	[illegible]	[illegible]	83	208	1.2	31	58	4.2	90	219	3.3	31	403	- 5.1	76	303	3.1	31	200	- 6.9	78	286	2.3	31	353	- 6.0	84	246	5.1
1000	31	188					31	173	5.0	82	192	4.3	31	174					31	170					31	156				
950	31	604	3.5	66	252	4.5	31	593	5.0	74	195	9.3	31	580	- 3.9	67	299	7.2	31	575	- 4.3	62	284	10.1	31	560	- 4.2	74	250	9.3
900	31	1,043	3.9	51	281	8.4	31	1,033	4.2	67	217	11.7	31	1,007	- 2.2	55	307	14.0	31	1,000	- 3.8	53	289	14.2	31	985	- 5.5	70	270	16.3
850	31	1,509	3.5	46	286	10.7	31	1,496	2.3	64	236	14.0	31	1,461	- 1.9	48	312	18.7	31	1,452	- 3.9	46	291	17.5	31	1,434	- 6.2	62	276	22.0
800	31	1,999	1.7	48	282	15.2	31	1,984	- .1	60	247	16.1	31	1,942	- 3.6	44	308	21.2	31	1,929	- 5.1	43	292	19.0	31	1,907	- 7.6	58	276	25.1
750	31	2,514	- .6	50	286	17.3	31	2,499	- 2.6	50	256	17.1	31	2,448	- 5.8	44	305	24.1	31	2,435	- 6.7	42	292	21.0	31	2,409	- 9.3	53	278	26.4
700	31	3,067	- 2.9	47	284	22.9	31	3,044	- 5.5	44	264	18.8	31	2,989	- 8.4	44	303	27.4	31	2,971	- 9.4	44	289	25.1	31	2,940	-11.3	54	280	29.7
650	31	3,646	- 6.0	44	292	26.8	31	3,616	- 8.7	39	264	21.8	31	3,557	-11.3	41	301	29.3	31	3,538	-12.4	46	288	28.2	31	3,504	-13.6	54	279	33.2
600	31	4,274	- 9.4	37	290	28.8	31	4,239	-12.2		268	24.1	31	4,172	-14.3	38	300	32.1	31	4,149	-15.5	44	288	32.8	31	4,112	-17.0	50	277	36.5
550	31	4,936	-13.2		284	33.2	31	4,892	-15.7		273	26.8	31	4,822	-18.3	39	299	35.4	31	4,799	-19.4	40	285	36.1	31	4,754	-21.0	48	276	41.4
500	31	5,662	-18.2		282	35.8	31	5,613	-20.2		276	29.3	31	5,532	-22.8	38	298	37.1	31	5,503	-23.8	38	284	39.1	31	5,458	-25.3	44	274	46.0
450	31	6,433	-23.9		280	38.1	31	6,377	-25.5	36	276	33.2	31	6,291	-27.9	34	297	41.6	31	6,261	-28.8	36	285	44.7	31	6,215	-30.0		274	50.3
400	31	7,289	-30.5		277	36.9	31	7,230	-31.9	40	273	37.3	31	7,134	-34.2		297	45.7	31	7,099	-34.2		285	47.4	31	7,047	-35.2		269	56.9
350	31	8,224	-37.8		277	44.3	31	8,159	-39.2		281	35.2	31	8,055	-41.0		292	48.2	31	8,020	-40.7		282	53.2	31	7,967	-40.8		261	55.6
300	31	9,268	-45.8		274	48.0	31	9,196	-47.4		296	35.6	31	9,087	-48.4		287	47.8	31	9,055	-47.4		277	56.0	31	9,003	-46.8		260	57.5
250	31	10,460	-53.5		273	55.5	31	10,379	-55.1		296	34.0	31	10,270	-54.6		285	52.7	31	10,243	-53.5		274	56.9	31	10,199	-51.4		259	60.4
200	31	11,877	-58.2		266	64.1	31	11,784	-60.4		299	34.8	31	11,685	-57.0		283	50.9	31	11,668	-55.9		278	56.3	31	11,638	-54.2		261	54.8
175	30	12,721	-58.7		266	61.4	31	12,616	-59.9		293	33.2	31	12,533	-56.7		282	51.1	30	12,518	-55.6		281	49.0	31	12,493	-54.9		263	55.0
150	30	13,685	-60.4		266	57.1	31	13,580	-59.5		294	29.7	31	13,509	-57.7		280	44.1	30	13,498	-56.5		280	48.0	31	13,477	-55.8		266	49.0
125	28	14,822	-62.6		270	46.4	31	14,718	-60.2		295	29.5	31	14,651	-59.5		280	42.6	30	14,650	-58.4		281	43.9	31	14,633	-57.7		265	41.8
100	25	16,195	-64.8		275	39.6	31	16,109	-60.3		296	26.4	30	16,050	-60.7		281	37.5	30	16,047	-59.7		281	34.0	30	16,027	-59.8		267	31.1
80	24	17,550	-64.7		277	32.6	31	17,498	-61.1		304	21.6	29	17,440	-61.3		277	30.3	29	17,439	-61.1		281	27.6	29	17,420	-60.1		274	16.7
70	23	18,367	-64.7		273	25.3	28	18,238	-61.1		303	20.2	28	18,270	-62.0		276	28.4	29	18,265	-61.5		282	24.7	28	18,260	-59.3		270	12.6
60	22	19,312	-64.5		275	20.6	27	19,283	-61.0		310	19.2	27	19,209	-62.9		276	24.3	29	19,224	-61.9		278	19.4	27	19,227	-59.5		271	9.9
50	22	20,431	-63.3		276	15.3	26	20,426	-61.1		317	17.5	24	20,350	-62.2		277	23.1	28	20,360	-61.7		285	15.0	27	20,365	-60.2		291	5.6
40	20	21,806	-61.2		270	18.5	25	21,806	-61.4		319	19.4	21	21,721	-62.3		277	24.5	28	21,746	-60.6		275	13.6	26	21,755	-59.2		287	6.8
30	17	23,612	-59.3		262	20.4	23	23,588	-61.5		331	22.2	12	23,446	-61.6		267	30.5	27	23,552	-59.5		258	13.2	24	23,571	-56.8		310	2.5
25	17	24,759	-57.8		261	24.1	16	24,713	-61.2		339	24.5	8	24,594	-61.2				27	24,696	-58.7		260	13.0	21	24,739	-55.7		144	5.8
20	15	26,179	-56.6		26[illegible]	21.4	9	26,084	-61.2										26	26,100	-56.8		259	18.5	20	26,165	-54.3		163	5.6
15							7	27,910	-59.8										25	27,935	-55.5		256	17.3	19	28,018	-53.4		225	6.8
10																			21	30,555	-51.3		249	25.3	18	30,643	-49.7		254	17.3
7																			18	32,899	-46.6		246	33.4	13	33,004	-45.7		252	42.7
5																			14	35,185	-41.8				7	35,226	-42.2			

Standard pressure surface (mb)	PONAPE, CAROLINE IS. 1004 MB						PORTLAND, ME. 1013 MB						RAPID CITY, S. DAK. 906 MB						ST. CLOUD, MINN. 981 MB						ST. PAUL IS., ALASKA 1009 MB					
	Number of observations	Dynamic height	Temperature	Relative humidity	Wind Direction	Wind Speed	Number of observations	Dynamic height	Temperature	Relative humidity	Wind Direction	Wind Speed	Number of observations	Dynamic height	Temperature	Relative humidity	Wind Direction	Wind Speed	Number of observations	Dynamic height	Temperature	Relative humidity	Wind Direction	Wind Speed	Number of observations	Dynamic height	Temperature	Relative humidity	Wind Direction	Wind Speed
SURFACE	31	39	25.8	88	67	4.7	31	20	- 7.4	82	308	4.7	31	966	- 3.9	69	311	3.7	31	316	- 9.0	76	294	3.5	29	10	- 2.2	77	41	7.6
1000	31	75	25.4	86	71	5.8	31	122			322	7.0	31	177					31	163					29	79			52	8.2
950	31	521	23.7	82	78	11.3	31	525	- 5.7	64	299	7.0	31	586					31	564	- 9.4	73	296	7.4	29	483	- 4.8	69	55	9.9
900	31	1,000	20.7	83	81	12.2	31	948	- 7.2	61	288	7.0	31	1,016			313	5.4	31	979	- 8.6	66	304	13.6	29	909	- 6.3	60	63	9.3
850	31	1,493	18.1	81	85	12.2	31	1,392	- 8.7	61	268	11.3	31	1,473	- .5	45	303	13.6	31	1,423	- 8.2	58	306	18.3	29	1,354	- 8.1	51	64	11.5
800	31	2,012	16.0	71	88	11.7	31	1,861	- 9.4	53	270	14.0	31	1,956	- 2.2	44	315	19.8	31	1,893	- 9.1	54	303	21.4	29	1,824	- 9.9		64	8.0
750	31	2,556	13.1	70	92	12.0	31	2,357	-11.2	49	267	19.6	31	2,464	- 4.9	46	316	23.9	31	2,392	-10.6	47	304	25.8	29	2,319	-12.3		63	7.2
700	31	3,138	10.0	66	96	13.0	31	2,886	-13.2	48	258	22.2	31	3,006	- 7.9	47	315	25.5	31	2,919	-12.9	47	306	29.7	29	2,844	-15.3		50	5.2
650	31	3,748	6.5	64	96	13.6	31	3,446	-15.7	48	260	25.5	31	3,575	-11.3	47	312	28.0	31	3,483	-15.6	49	305	34.8	29	3,400	-18.5		45	3.7
600	31	4,405	2.7	63	90	16.3	31	4,049	-18.4	43	261	28.2	31	4,189	-14.4	48	308	29.5	31	4,083	-18.8	49	305	39.4	29	3,994	-22.4		34	3.1
550	31	5,101	- 1.1	64	96	16.9	31	4,690	-22.1	40	261	32.3	31	4,842	-18.1	44	309	35.9	31	4,724	-22.5	50	304	43.3	29	4,623	-26.8		59	2.1
500	31	5,860	- 5.3	60	95	17.5	31	5,389	-26.2	38	256	38.1	31	5,549	-22.7	40	311	38.5	31	5,420	-26.8	48	304	46.2	29	5,309	-31.6		77	1.9
450	31	6,679	[illegible]	[illegible]	90	19.0	31	6,139	-31.0		260	45.5	31	6,309	-28.0	39	309	42.9	31	6,168	-31.5		306	50.3	29	6,042	-36.9		312	2.3
400	30	7,582	-15.1	45	88	16.9	31	6,971	-36.4		261	49.5	31	7,149	-34.1	36	306	46.8	31	6,998	-37.0		302	55.2	29	6,852	-42.6		138	1.9
350	30	8,577	-22.4		84	13.4	31	7,887	-41.6		261	58.3	31	8,070	-41.4		306	49.7	31	7,910	-43.3		294	54.0	29	7,742	-48.6		214	1.4
300	30	9,691	-30.7		90	9.7	31	8,920	-47.3		261	62.6	31	9,100	-48.9		307	52.7	31	8,934	-49.7		291	53.6	29	8,741	-55.0		220	4.3
250	30	10,960	-41.1		100	8.4	31	10,115	-51.6		262	58.7	31	10,278	-56.2		305	52.3	31	10,113	-54.3		293	57.5	28	9,897	-58.0		233	8.0
200	30	12,436	-53.7		108	7.4	31	11,556	-53.1		263	58.7	30	11,678	-59.5		302	51.5	30	11,532	-54.7		293	52.3	28	11,310	-55.1		232	14.6
175	30	13,281	-60.7		98	5.8	31	12,416	-53.1		262	55.0	30	12,516	-58.5		301	46.0	30	12,386	-55.2		291	46.8	28	12,165	-53.7		231	20.6
150	30	14,224	-68.4		79	5.1	31	13,410	-53.1		264	44.5	30	13,485	-59.1		296	42.4	30	13,368	-56.0		289	43.9	28	13,157	-53.1		241	24.3
125	30	15,296	-76.4		86	8.7	31	14,581	-54.4		262	38.7	30	14,624	-60.6		292	39.2	30	14,524	-57.5		287	41.4	28	14,332	-52.7		237	25.8
100	28	16,558	-83.5		93	13.2	31	16,007	-56.2		262	34.2	30	16,012	-61.0		292	36.3	30	15,931	-58.3		285	39.2	25	15,749	-52.5		239	31.5
80	24	17,793	-82.5		96	13.2	30	17,422	-56.8		257	26.0	30	17,395	-62.0		291	30.1	30	17,232	-59.1		286	32.3	23	17,189	-52.0		242	38.5
70	21	18,545	-77.4		93	7.6	30	18,266	-57.0		258	22.5	30	18,227	-61.7		290	27.6	30	18,169	-60.2		285	28.2	23	18,061	-51.7		244	39.6
60	18	19,446	-71.1		15	.8	30	19,245	-57.0		260	20.8	30	19,176	-62.2		288	24.5	29	19,119	-61.2		283	25.3	20	19,060	-51.2		244	40.6
50	17	20,535	-66.7		85	12.2	30	20,399	-57.2		256	15.3	30	20,303	-62.4		286	23.1	29	20,252	-61.4		281	22.9	20	20,244	-51.4		246	45.1
40	16	21,894	-62.9		86	33.0	29	21,819	-56.9		245	11.3	29	21,688	-62.2		290	17.3	28	21,633	-61.8		276	20.2	20	21,687	-52.5		246	50.7
30	13	23,696	-55.5		89	50.3	28	23,654	-55.8		232	4.9	24	23,496	-61.6		286	13.8	26	23,468	-60.3		269	18.3	18	23,562	-52.9		253	49.9
25	9	24,880	-53.2				23	24,828	-55.1		195	6.2	17	24,683	-60.0		288	9.3	26	24,605	-60.2		265	22.0	18	24,735	-53.6		255	53.8
20	8	26,335	-49.4				19	26,258	-54.1		197	9.1	7	26,109	-59.7				24	26,045	-59.4		263	10.9	18	26,166	-54.7		261	54.2
15	6	28,242	-45.5				8	28,139	-53.2										21	27,901	-57.8		251	15.7	13	28,005	-55.4		258	46.4
10	5	30,947	-39.0																15	30,542	-53.6		246	13.2	7	30,642	-55.2			
7																			13	32,846	-50.4		259	27.2						
5																			8	35,113	-44.3									

Standard pressure surface (mb)	SALEM, OREG. 1015 MB						SALT LAKE CITY, UTAH 879 MB						SAN ANTONIO, TEXAS 993 MB						SAN DIEGO, CALIF. 1004 MB						SAN JUAN, P. R. 1015 MB					
	Number of observations	Dynamic height	Temperature	Relative humidity	Wind Direction	Wind Speed	Number of observations	Dynamic height	Temperature	Relative humidity	Wind Direction	Wind Speed	Number of observations	Dynamic height	Temperature	Relative humidity	Wind Direction	Wind Speed	Number of observations	Dynamic height	Temperature	Relative humidity	Wind Direction	Wind Speed	Number of observations	Dynamic height	Temperature	Relative humidity	Wind Direction	Wind Speed
SURFACE	31	61	4.4	90	189	2.3	31	1,288	- 5.0	87	171	3.5	31	243	7.3	82	6	3.9	31	124	9.4	85	64	2.3	31	6	22.8	86	101	2.3
1000	31	179	4.9	80	185	2.9	31	258					31	180					31	155	10.2	80	49	2.1	31	137	23.9	78	93	9.1
950	31	599	6.1	71	200	7.0	31	664					31	606	9.4	64	354	1.6	31	586	12.7	53	58	1.0	31	584	21.2	76	83	11.1
900	31	1,042	6.1	59	225	10.5	31	1,095					31	1,054	9.5	57	233	4.1	31	1,039	12.4	38	22	1.6	31	1,052	18.1	73	84	11.9
850	31	1,509	3.7	54	231	15.5	31	1,551	- 1.3	68	185	2.7	31	1,528	8.7	54	249	8.2	31	1,516	9.8	38		.0	31	1,539	15.1	71	84	12.2
800	31	2,000	1.4	54	239	14.4	31	2,036	- .4	52	224	4.1	31	2,028	6.8	46	261	9.7	31	2,017	7.1	35	96	1.4	31	2,052	12.9	60	79	10.5
750	31	2,513	- 1.1	48	245	15.2	31	2,554	- 2.1	47	270	6.0	31	2,556	5.0	40	262	12.2	31	2,539	4.2	33	53	2.1	31	2,591	10.8	39	75	8.9
700	31	3,065	- 3.8	44	251	17.1	31	3,099	- 4.5	45	297	10.9	31	3,117	2.1	35	266	16.7	31	3,103	.9	33	15	1.9	31	3,165	8.5	30	81	6.4
650	31	3,642	- 6.8	42	258	20.2	31	3,679	- 7.0	40	303	14.6	31	3,710	- 1.4	35	265	22.3	31	3,691	- 2.6		14	2.7	31	3,769	5.3	29	74	3.9
600	31	4,268	-10.4	40	264	22.5	31	4,301	-10.2	35	303	16.9	31	4,345	- 5.2	36	263	25.1	31	4,326	- 6.9	29	352	4.3	31	4,424	1.8		88	1.6
550	31	4,925	-14.8	40	265	25.1	31	4,963	-14.2		302	20.4	31	5,017	- 9.4		259	26.4	31	4,990	-11.6		337	5.1	30	5,115	- 2.6		318	.6
500	31	5,648	-19.5	39	265	26.6	31	5,683	-19.0		300	23.9	31	5,754	-14.4		258	30.5	31	5,724	-16.7		342	5.8	30	5,870	- 7.7		227	2.7
450	31	6,417	-24.8	39	263	28.8	31	6,456	-24.5		298	23.9	31	6,537	-20.2		257	35.8	31	6,498	-22.7		342	6.8	30	6,679	-13.2		265	4.3
400	31	7,270	-31.1	38	263	29.5	31	7,306	-31.0		298	22.3	31	7,407	-26.6		255	41.4	31	7,361	-29.6		334	8.0	30	7,570	-19.5		284	8.4
350	31	[illegible]	-38.6		265	31.7	31	8,238	-38.5		300	22.3	31	8,357	-33.8		253	48.6	31	8,299	-36.9		329	10.3	29	8,548	-26.3		283	14.4
300	31	9,244	-46.6		270	32.3	31	9,278	-47.0		306	23.3	31	9,420	-41.5		254	57.7	31	9,348	-44.8		324	12.6	29	9,645	-34.3		279	20.4
250	31	10,431	-54.9		285	29.5	30	10,464	-55.6		304	25.1	31	10,633	-50.4		255	70.5	31	10,547	-52.1		315	16.7	29	10,894	-43.8		271	27.8
200	31	11,835	-60.9		288	31.5	30	11,861	-61.9		304	27.4	31	12,059	-58.7		255	79.3	31	11,973	-56.7		291	20.6	28	12,356	-55.1		263	37.9
175	31	12,666	-60.3		286	29.9	30	12,686	-61.6		298	27.8	31	12,893	-61.2		257	76.2	31	12,818	-58.0		290	22.3	28	13,197	-61.1		261	40.2
150	31	13,628	-60.1		286	30.7	30	13,643	-61.0		299	27.2	31	13,845	-63.1		258	64.7	31	13,785	-59.6		281	24.3	28	14,140	-67.1		272	36.3
125	31	14,763	-60.8		290	27.0	30	14,772	-62.4		293	25.1	31	14,958	-65.8		260	50.7	31	14,919	-62.1		280	24.5	27	15,225	-71.6		279	25.1
100	31	16,150	-61.2		291	23.5	30	16,144	-63.5		293	23.3	30	16,301	-68.9		263	39.4	31	16,288	-65.1		274	22.5	27	16,525	-77.2		280	16.3
80	31	17,536	-61.5		301	17.7	30	17,518	-63.0		295	21.0	30	17,630	-70.4		264	28.6	31	17,646	-65.0		276	15.9	27	17,796	-79.1		288	3.3
70	31	18,365	-61.4		304	16.1	30	18,344	-63.3		299	18.5	30	18,436	-68.5		269	20.8	30	18,461	-64.8		275	15.0	27	18,575	-77.1		100	1.6
60	31	19,316	-61.6		312	16.9	30	19,287	-63.3		297	16.9	30	19,357	-66.3		268	16.5	30	19,400	-64.4		282	10.9	26	19,456	-70.9		76	5.1
50	30	20,456	-61.2		322	14.6	30	20,408	-63.2		296	14.4	30	20,468	-64.1		265	13.6	30	20,517	-62.9		292	7.6	26	20,559	-62.8		79	3.3
40	28	21,852	- 1.1		329	14.4	30	21,784	-62.6		293	14.8	29	21,847	-60.7		266	14.6	29	21,893	-62.0		297	10.1	25	21,954	-57.5		52	5.2
30	25	23,647	-61.1		333	16.7	28	23,572	-61.9		293	16.7	28	23,652	-57.1		255	22.2	29	23,686	-59.3		292	12.2	24	23,788	-53.4		74	11.9
25	23	24,787	-60.9		336	18.3	27	24,716	-60.8		293	16.1	26	24,811	-55.6		258	28.4	29	24,832	-57.9		285	15.2	24	24,969	-50.6		83	13.4
20	22	26,171	-60.9		339	20.2	26	26,107	-60.4		280	15.7	24	26,243	-53.8		264	33.8	29	26,243	-56.5		280	22.0	24	26,431	-48.8		104	11.9
15	15	28,020	-58.6		345	18.7	18	27,955	-58.2		293	9.1	22	28,097	-51.3		268	41.6	26	28,081	-54.0		271	33.0	21	28,338	-45.8		96	4.5
10													7	30,728	-49.3				9	30,740	-50.4				16	31,080	-41.4		257	14.0
7																									8	33,531	-34.5			
5																									5	35,899	-30.8			

See reference note at end of table

RAWINSONDE DATA

Average monthly values

SANTA MONICA, CALIF.
1015 MB

Standard pressure surface (mb.)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind Direction	Wind Speed
SURFACE	31	38	11.5	73	33	3.9
1000	31	161	12.7	65	46	3.1
950	31	593	13.6	45	55	2.5
900	31	1,047	12.9	34	72	1.6
850	31	1,525	10.2	31	102	1.6
800	31	2,027	7.4	30	99	1.7
750	31	2,549	4.3	30	68	2.1
700	31	3,113	1.0	28	49	2.1
650	31	3,701	- 2.8		338	2.7
600	31	4,334	- 7.1		332	3.7
550	31	4,998	-11.7		323	5.2
500	31	5,731	-16.7		336	5.6
450	31	6,503	-22.7		338	5.8
400	31	7,367	-29.5		346	6.6
350	31	8,305	-36.9		334	9.9
300	31	9,353	-45.2		332	11.5
250	31	10,548	-53.3		319	14.8
200	31	11,969	-57.6		309	20.8
175	31	12,809	-59.1		291	20.0
150	31	13,773	-60.2		290	23.1
125	31	14,904	-62.9		285	21.2
100	31	16,272	-65.0		276	18.8
80	31	17,631	-65.2		278	15.5
70	31	18,446	-65.1		284	12.2
60	31	19,385	-64.4		293	9.9
50	31	20,503	-63.1		297	8.2
40	31	21,880	-61.9		304	8.0
30	30	23,669	-59.4		307	10.5
25	30	24,813	-58.3		298	13.2
20	30	26,220	-57.4		288	20.4
15	24	28,081	-54.0		276	29.7
10	10	30,667	-51.2			
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SAULT STE. MARIE, MICH.
987 MB

Standard pressure surface (mb.)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind Direction	Wind Speed
SURFACE	31	221	- 7.9	80	352	2.1
1000	31	118				
950	31	516	- 7.7	75	287	7.6
900	31	936	- 9.6	72	290	13.4
850	31	1,376	-11.1	66	291	16.3
800	31	1,840	-12.4	58	292	17.9
750	31	2,331	-13.8	52	289	19.4
700	31	2,854	-15.8	46	285	22.5
650	31	3,408	-18.1	43	283	25.1
600	31	4,005	-20.9	44	285	26.8
550	31	4,642	-24.6	43	286	29.9
500	31	5,331	-29.0	40	285	34.0
450	31	6,075	-34.0		291	36.3
400	31	6,893	-39.1		284	39.6
350	31	7,797	-44.9		277	44.7
300	31	8,816	-50.4		277	42.7
250	31	9,996	-53.4		281	41.8
200	31	11,432	-53.4		273	36.5
175	31	12,293	-53.2		274	32.1
150	31	13,284	-54.1		271	28.2
125	31	14,451	-55.3		274	28.4
100	31	15,872	-56.1		273	25.6
80	31	17,285	-57.7		270	19.8
70	31	18,131	-58.3		268	18.3
60	31	19,095	-59.0		267	16.9
50	31	20,237	-59.7		261	12.4
40	30	21,628	-59.7		248	12.0
30	28	23,471	-58.6		241	10.7
25	28	24,617	-58.5		248	12.0
20	23	26,023	-58.1		229	5.8
15	21	27,837	-55.9		227	11.5
10	17	30,449	-51.3			
7	15	32,786	-46.8			
5	10	35,055	-40.9			

SHEMYA, ALASKA
1003 MB

Standard pressure surface (mb.)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind Direction	Wind Speed
SURFACE	31	38	1.4	83	122	3.5
1000	31	65			132	4.5
950	31	475	- 2.0	75	147	7.8
900	31	904	- 5.1	79	163	8.2
850	31	1,352	- 7.7	74	177	7.8
800	31	1,822	-10.0	63	184	7.4
750	31	2,317	-13.0	62	178	7.6
700	31	2,840	-15.9	56	192	8.7
650	31	3,392	-19.7	53	192	10.7
600	31	3,986	-23.6	51	195	13.0
550	31	4,614	-27.6	50	203	14.2
500	31	5,297	-32.4	49	211	15.7
450	31	6,026	-37.5		213	16.5
400	31	6,836	-43.3		214	18.5
350	31	7,723	-49.1		215	21.4
300	31	8,722	-54.8		217	26.2
250	31	9,879	-57.1		215	25.8
200	31	11,301	-53.7		231	29.3
175	31	12,161	-52.7		238	30.7
150	31	13,157	-52.7		236	33.6
125	31	14,334	-52.6		237	35.9
100	31	15,777	-52.4		238	38.3
80	31	17,221	-51.9		235	40.4
70	29	18,101	-51.6		236	44.5
60	29	19,097	-51.0		236	45.9
50	29	20,288	-49.7		235	49.0
40	28	21,759	-49.5		233	48.8
30	27	23,647	-50.7		238	52.3
25	27	24,832	-52.0		236	50.9
20	24	26,288	-53.2		238	47.4
15	16	28,273	-50.7		250	48.6
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SHREVEPORT, LA.
1013 MB

Standard pressure surface (mb.)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind Direction	Wind Speed
SURFACE	31	79	6.0	83		.0
1000	31	188	6.1	73	335	.6
950	31	612	6.2	64	290	5.6
900	31	1,052	5.6	58	286	8.9
850	31	1,519	5.0	52	287	13.8
800	31	2,012	3.1	50	286	17.3
750	31	2,535	.9	44	283	18.3
700	31	3,086	- 1.2	44	281	21.8
650	31	3,669	- 4.2	39	280	26.2
600	31	4,301	- 7.6	37	279	31.1
550	31	4,968	-11.4		277	35.0
500	31	5,698	-16.2		275	40.2
450	31	6,476	-22.1		273	44.7
400	31	7,338	-28.4		270	50.1
350	31	8,281	-35.6		268	56.2
300	31	9,335	-43.8		264	60.4
250	31	10,537	-52.1		262	70.9
200	30	11,965	-58.5		264	76.4
175	29	12,802	-59.8		263	69.0
150	28	13,767	-61.4		262	63.7
125	28	14,890	-64.5		264	51.3
100	28	16,244	-67.4		265	45.3
80	27	17,590	-67.0		269	28.0
70	27	18,406	-66.4		273	22.3
60	27	19,333	-65.2		269	19.0
50	26	20,452	-63.1		274	14.0
40	24	21,834	-61.1		268	13.8
30	23	23,633	-57.8		261	17.7
25	23	24,786	-56.5		260	22.0
20	22	26,208	-55.0		261	29.7
15	21	28,062	-52.1		259	33.6
10	20	30,718	-46.9		264	48.6
7	12	33,113	-44.3		246	52.7
5	6	35,405	-40.0			

SPOKANE, WASH.
937 MB

Standard pressure surface (mb.)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind Direction	Wind Speed
SURFACE	31	722	- .2	90	178	2.9
1000	31	194				
950	31	612				
900	31	1,042	.3	82	204	7.2
850	31	1,500	- .3	76	235	12.8
800	31	1,985	- 1.2	66	250	17.1
750	31	2,496	- 3.8	60	262	19.0
700	31	3,040	- 6.4	55	272	21.4
650	31	3,611	- 9.4	49	277	27.8
600	31	4,231	-13.2	49	278	27.6
550	31	4,882	-17.0	43	284	31.5
500	31	5,598	-21.4	45	283	35.6
450	31	6,359	-26.7	45	287	40.6
400	31	7,207	-32.9	46	289	43.1
350	31	8,133	-39.6		290	49.5
300	31	9,171	-47.1		291	53.8
250	31	10,357	-55.0		294	54.8
200	31	11,763	-60.0		295	47.0
175	31	12,598	-59.1		292	44.1
150	31	13,566	-58.9		289	39.6
125	31	14,710	-59.3		295	33.0
100	29	16,115	-60.8		297	31.7
80	27	17,499	-60.3		297	27.4
70	27	18,330	-61.5		299	19.2
60	27	19,283	-62.0		310	23.1
50	26	20,424	-61.3		317	20.4
40	24	21,817	-61.2		322	19.2
30	21	23,635	-60.2		320	16.5
25	20	24,769	-60.6		321	20.4
20	17	26,135	-61.1		322	20.0
15	9	27,956	-58.9			
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SWAN ISLAND, W. I.
1015 MB

Standard pressure surface (mb.)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind Direction	Wind Speed
SURFACE	31	10	24.4	77	23	8.5
1000	31	139	23.7	75	29	11.7
950	31	586	20.3	77	40	12.2
900	31	1,051	17.1	74	50	10.1
850	31	1,538	14.5	65	47	7.6
800	31	2,049	12.4	53	50	4.5
750	31	2,590	10.5	41	63	4.1
700	31	3,160	8.2	31	81	1.7
650	31	3,766	5.1	30	128	1.6
600	31	4,418	1.8		164	3.5
550	31	5,109	- 2.5		197	6.2
500	31	5,864	- 7.4		211	3.3
450	31	6,671	-12.7		231	3.3
400	31	7,566	-18.9		246	8.4
350	31	8,546	-26.1		258	12.2
300	31	9,643	-34.3		254	18.5
250	31	10,893	-43.9		244	26.6
200	31	12,354	-55.3		238	31.3
175	31	13,194	-61.4		237	31.3
150	31	14,136	-67.2		244	31.9
125	28	15,217	-72.0		258	29.7
100	26	16,515	-76.2		259	20.0
80	25	17,792	-78.6		263	7.6
70	24	18,565	-76.4		269	2.1
60	24	19,455	-70.5		137	1.2
50	24	20,561	-62.3		59	2.3
40	24	21,959	-57.5		75	6.8
30	23	23,789	-53.8		82	11.1
25	23	24,969	-50.4		77	12.8
20	20	26,430	-48.7		97	10.7
15	18	28,331	-46.8		73	5.6
10	6	31,032	-42.5			
7						

TAMPA, FLA.
1020 MB

Standard pressure surface (mb.)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind Direction	Wind Speed
SURFACE	31	8	10.5	84	50	4.7
1000	31	176	12.6	75	44	4.5
950	31	605	11.6	75	319	4.1
900	31	1,057	10.3	68	281	9.1
850	31	1,532	8.7	55	289	11.3
800	31	2,032	6.8	48	286	15.3
750	31	2,558	5.2	39	280	18.5
700	31	3,122	3.0	35	279	21.6
650	31	3,718	.4		276	25.3
600	31	4,358	- 3.4		273	28.4
550	31	5,033	- 7.7		272	35.8
500	31	5,776	-12.4	33	271	40.0
450	31	6,567	-18.1		269	43.7
400	31	7,441	-24.6		264	46.8
350	31	8,399	-31.4		264	53.2
300	31	9,471	-39.7		265	63.3
250	31	10,692	-48.5		265	74.8
200	31	12,133	-56.3		262	77.5
175	31	12,972	-60.5		261	78.1
150	30	13,921	-64.1		260	69.9
125	29	15,032	-67.5		258	60.4
100	29	16,363	-71.2		260	49.0
80	29	17,676	-72.0		259	37.1
70	29	18,476	-69.5		262	27.8
60	28	19,394	-66.2		263	15.0
50	26	20,512	-63.1		249	8.0
40	26	21,898	-59.4		260	4.5
30	25	23,715	-56.1		266	12.4
25	24	24,878	-53.9		264	13.6
20	21	26,325	-50.7		267	15.3
15	14	28,218	-47.9			
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TATOOSH IS., WASH
1015 MB

Standard pressure surface (mb.)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind Direction	Wind Speed
SURFACE	31	31	8.2	84	135	8.7
1000	31	155	7.6	80	143	9.9
950	31	575	5.9	78	186	12.4
900	31	1,019	3.8	76	209	15.0
850	31	1,481	1.6	72	223	15.7
800	31	1,968	- .5	67	240	16.9
750	31	2,478	- 2.9	61	248	19.4
700	31	3,026	- 6.2	54	253	21.6
650	31	3,596	- 9.7	45	257	22.7
600	31	4,217	-12.8	42	262	25.6
550	31	4,869	-16.1	42	265	28.4
500	31	5,586	-21.1	40	262	31.9
450	31	6,345	-26.4	40	263	35.8
400	31	7,197	-32.4	38	267	38.9
350	31	8,124	-39.4		264	44.1
300	31	9,162	-47.4		267	46.6
250	31	10,346	-54.9		270	43.7
200	31	11,751	-60.2		268	46.8
175	31	12,583	-59.8		267	42.7
150	31	13,549	-58.9		268	38.1
125	31	14,691	-59.2		275	30.7
100	30	16,080	-59.7		275	25.6
80	29	17,475	-59.9		284	23.1
70	28	18,311	-60.4		291	20.0
60	26	19,273	-60.6		298	18.7
50	26	20,405	-61.3		311	20.6
40	24	21,785	-61.6		318	21.4
30	23	23,560	-61.7		328	23.3
25	21	24,728	-61.7		334	19.8
20	18	26,132	-61.2		337	13.6
15	13	27,910	-61.7		344	22.9
10	12	30,412	-59.6			
7	8	32,749	-56.3			

TOPEKA, KANS.
989 MB

Standard pressure surface (mb.)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind Direction	Wind Speed
SURFACE	31	269	- 3.0	83	317	2.1
1000	31	180				
950	31	589	- 1.3	64	286	5.6
900	31	1,019	- .1	53	300	10.3
850	31	1,476	- .8	46	308	12.8
800	31	1,959	- 2.2	46	304	15.5
750	31	2,466	- 4.4	46	302	19.2
700	31	3,011	- 7.2	46	297	22.5
650	31	3,584	- 9.7	43	297	27.0
600	31	4,200	-12.9	40	296	31.3
550	31	4,856	-16.8	37	295	34.8
500	31	5,569	-21.4		294	38.7
450	31	6,333	-26.3		291	40.8
400	31	7,178	-33.0		289	42.4
350	31	8,104	-40.0		286	46.6
300	31	9,141	-47.4		283	48.6
250	31	10,328	-54.2		280	50.1
200	31	11,748	-56.8		273	51.7
175	31	12,594	-57.4		275	52.1
150	31	13,567	-58.4		274	51.3
125	31	14,710	-60.4		277	43.9
100	31	16,096	-61.8		275	39.4
80	31	17,475	-62.6		282	24.9
70	31	18,302	-62.6		283	22.7
60	31	19,248	-62.7		285	20.0
50	30	20,367	-62.7		282	17.3
40	29	21,743	-61.9		279	14.6
30	26	23,525	-60.5		264	18.5
25	24	24,690	-59.0		258	16.3
20	19	26,116	-57.5		267	12.8
15	7	27,952	-54.1			
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TRUK, CAROLINE IS.
1009 MB

Standard pressure surface (mb.)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind Direction	Wind Speed
SURFACE	31	2	26.9	84	51	2.7
1000	31	78	26.8	83	55	6.2
950	31	524	24.2	82	91	9.7
900	31	1,005	21.4	80	105	9.3
850	31	1,500	18.7	77	108	9.3
800	31	2,019	16.2	72	112	9.3
750	31	2,568	13.4	68	107	10.7
700	31	3,146	10.3	64	111	10.7
650	31	3,760	6.8	65	103	12.8
600	31	4,415	3.1	65	106	12.8
550	31	5,110	- .9	65	100	16.7
500	31	5,872	- 5.2	60	104	16.3
450	31	6,689	- 9.9	50	95	16.5
400	31	7,594	-15.4	40	94	14.6
350	31	8,590	-21.9	34	94	13.2
300	31	9,705	-30.4		96	10.9
250	31	10,974	-40.8		106	10.3
200	31	12,452	-53.3		107	9.5
175	31	13,298	-60.5		70	9.5
150	31	14,240	-68.1		92	7.4
125	31	15,313	-76.2		84	11.1
100	26	16,577	-82.7		99	14.2
80	20	17,821	-81.2		101	15.9
70	18	18,582	-75.8		101	9.7
60	16	19,481	-70.5		109	4.9
50	16	20,576	-65.7		94	16.9
40	16	21,950	-60.6		94	34.2
30	16	23,761	-55.3		94	43.9
25	16	24,934	-51.7		94	54.8
20	15	26,393	-48.4		93	50.5
15	13	28,318	-43.9		88	18.8
10	11	31,063	-39.1			
7						

TUCSON, ARIZ.
927 MB

Standard pressure surface (mb.)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind Direction	Wind Speed
SURFACE	31	789	7.5	72	143	6.4
1000	31	162				
950	31	586				
900	31	1,038	11.3	56	134	7.6
850	31	1,515	9.4	51	145	4.7
800	31	2,015	6.4	51	181	4.5
750	31	2,539	3.5	47	199	4.1
700	31	3,099	.5	39	210	2.7
650	31	3,684	- 3.0	38	239	2.9
600	31	4,320	- 6.8		255	3.9
550	31	4,982	-11.4		263	6.2
500	31	5,718	-16.7		257	6.8
450	31	6,489	-22.5		266	6.6
400	31	7,355	-29.4		268	8.7
350	31	8,294	-36.7		260	10.7
300	31	9,342	-44.6		256	14.8
250	31	10,543	-52.2		260	19.4
200	31	11,971	-56.2		258	31.3
175	31	12,816	-57.8		259	33.2
150	31	13,784	-59.5		259	34.6
125	31	14,917	-62.2		264	32.6
100	31	16,286	-64.7		265	26.8
80	31	17,641	-66.5		266	20.6
70	31	18,458	-65.8		265	17.3
60	31	19,388	-65.0		274	14.6
50	30	20,500	-63.5		284	11.3
40	30	21,877	-61.7		277	10.3
30	27	23,666	-59.2		273	14.8
25	27	24,813	-57.6		274	18.7
20	27	26,228	-55.9		269	25.6
15	26	28,069	-53.8		270	38.7
10	25	30,707	-47.1		262	49.7
7	14	33,094	-43.6		257	44.1
5	6	35,304	-40.7			

WAKE IS., PACIFIC AREA
1015 MB

Standard pressure surface (mb.)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind Direction	Wind Speed
SURFACE	31	5	24.9	76	82	9.7
1000	31	135	24.0	75	81	13.0
950	31	579	20.5	76	85	13.4
900	31	1,048	17.2	74	92	11.1
850	31	1,535	14.4	65	98	7.6
800	31	2,046	13.3	39	129	4.9
750	31	2,585	11.9		152	4.5
700	31	3,162	9.6		204	4.1
650	31	3,767	6.7		222	5.1
600	31	4,427	3.4		244	5.8
550	31	5,120	- .6		253	6.6
500	31	5,883	- 5.1		248	9.3
450	31	6,695	-10.4		267	9.7
400	31	7,600	-16.8		279	13.2
350	31	8,588	-23.8		278	16.1
300	31	9,695	-32.4		282	18.1
250	31	10,954	-42.3		286	17.9
200	31	12,426	-53.8		288	19.6
175	30	13,270	-60.3		288	20.4
150	30	14,215	-67.2		284	21.6
125	30	15,293	-74.6		279	19.6
100	30	16,571	-79.8		278	11.9
80	30	17,825	-81.3		309	1.0
70	27	18,579	-77.4		98	4.1
60	27	19,479	-70.2		92	8.7
50	27	20,583	-63.0		93	9.7
40	27	21,970	-58.8		84	8.7
30	27	23,791	-55.1		91	11.1
25	26	24,966	-51.9		86	15.0
20	25	26,418	-50.5		83	13.2
15	23	28,299	-49.5		78	17.1
10	21	30,979	-44.5		82	16.1
7	19	33,399	-39.2		47	13.4
5	16	35,723	-35.3		38	16.3

WASHINGTON, D. C.
1009 MB

Standard pressure surface (mb.)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind Direction	Wind Speed
SURFACE	31	84	- 4.8	70	310	3.5
1000	31	152			319	5.1
950	31	561	- 2.9	56	300	8.9
900	31	987	- 3.5	54	292	13.0
850	31	1,439	- 4.3	47	292	16.1
800	31	1,916	- 5.2	43	289	19.2
750	31	2,421	- 6.9	42	285	24.5
700	31	2,958	- 9.1	41	277	28.2
650	31	3,525	-11.6	43	271	33.0
600	31	4,139	-14.4	39	271	36.7
550	31	4,791	-18.0	38	268	40.4
500	31	5,502	-22.6	38	266	44.3
450	31	6,264	-27.7		266	50.3
400	31	7,106	-33.4		266	56.2
350	31	8,031	-39.8		262	58.7
300	31	9,069	-46.4		263	63.9
250	31	10,264	-51.7		264	67.2
200	31	11,701	-54.6		266	66.3
175	30	12,561	-55.5		265	61.4
150	30	13,543	-56.4		264	52.7
125	30	14,693	-58.8		265	43.9
100	30	16,087	-60.9		263	35.9
80	30	17,473	-61.1		265	28.0
70	29	18,313	-61.9		259	21.6
60	29	19,260	-61.7		262	20.2
50	29	20,391	-60.8		261	16.3
40	29	21,784	-59.1		256	13.6
30	28	23,597	-57.4		257	13.2
25	27	24,752	-56.0		259	14.6
20	27	26,174	-54.9		249	15.2
15	26	28,018	-52.8		250	20.6
10	26	30,659	-48.3		250	32.1
7	22	33,023	-44.3		254	53.6
5	15	35,294	-41.7			

WINNEMUCCA, NEV.
875 MB

Standard pressure surface (mb.)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind Direction	Wind Speed
SURFACE	31	1,310	- 5.7	82	144	.8
1000	31	247				
950	31	656				
900	31	1,089				
850	31	1,541	2.1	56	171	2.3
800	31	2,031	2.4	43	212	3.9
750	31	2,549	.1	40	250	6.6
700	31	3,102	- 2.5	38	274	8.7
650	31	3,682	- 5.7	37	275	10.7
600	31	4,310	- 9.5	40	285	12.2
550	31	4,972	-13.4	39	290	14.8
500	31	5,696	-18.3	36	293	14.8
450	31	6,469	-23.9		293	17.5
400	31	7,324	-30.3		288	18.8
350	31	8,260	-37.7		295	18.3
300	31	9,304	-46.2		298	19.6
250	31	10,491	-55.2		307	21.2
200	31	11,891	-61.2		300	24.7
175	31	12,720	-61.2		300	24.9
150	31	13,677	-60.9		299	25.8
125	31	14,808	-61.9		290	21.4
100	30	16,183	-62.5		301	20.4
80	29	17,559	-63.1		301	16.3
70	29	18,382	-63.3		301	14.2
60	29	19,330	-62.7		307	14.2
50	28	20,451	-62.4		311	12.2
40	26	21,830	-62.0		325	13.6
30	24	23,602	-61.6		315	15.0
25	23	24,725	-61.6		314	18.1
20	22	26,122	-60.9		312	18.5
15	11	27,971	-58.2			
10						
7						
5						

WINSLOW, ARIZ.
856 MB

Standard pressure surface (mb.)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind Direction	Wind Speed
SURFACE	31	1,492	- 4.0	84	193	1.4
1000	31	243				
950	31	656				
900	31	1,089				
850	31	1,549	- 2.6	76	222	1.0
800	31	2,037	2.0	51	345	.8
750	31	2,557	.8	44	313	1.4
700	31	3,110	- 1.3	37	291	4.5
650	31	3,694	- 4.3	31	285	5.1
600	31	4,324	- 8.1		297	6.4
550	31	4,990	-12.5		309	7.4
500	31	5,716	-17.6		313	8.0
450	31	6,487	-23.7		301	9.3
400	31	7,346	-30.5		291	9.9
350	31	8,280	-38.1		[illegible]	10.3
300	31	9,322	-46.4		284	13.4
250	31	10,511	-54.0		282	14.6
200	31	11,925	-58.6		270	18.1
175	31	12,762	-59.5		271	23.7
150	31	13,725	-60.4		267	24.9
125	31	14,855	-62.5		271	27.0
100	31	16,223	-64.7		274	23.1
80	31	17,583	-65.8		275	18.8
70	31	18,398	-65.5		283	15.7
60	29	19,328	-64.5		279	14.6
50	28	20,452	-63.4		280	11.3
40	28	21,827	-62.2		286	11.7
30	27	23,621	-59.9		282	13.4
25	26	24,771	-58.9		280	17.3
20	21	26,166	-57.5		279	24.3
15	15	27,962	-56.1		271	31.9
10						
7						
5						

See reference note at end of table

RAWINSONDE DATA

Average monthly values

Standard pressure surface (mb)	YAKUTAT, ALASKA 1007 MB						YUCCA FLAT, NEV. 887 MB						YUMA, ARIZ. 1002 MB					
					Wind						Wind						Wind	
	Number of observations	Dynamic height	Temperature	Relative humidity	Direction	Speed	Number of observations	Dynamic height	Temperature	Relative humidity	Direction	Speed	Number of observations	Dynamic height	Temperature	Relative humidity	Direction	Speed
SURFACE	31	12	- .9	84	90	6.2	28	1,196	- 4.4	55	345	3.3	29	131	9.0	42	15	1.4
1000	31	67	-		93	9.3	28	235					29	149			3	1.7
950	31	478	- .5	69	105	13.0	28	640					29	579	15.0	33	355	6.6
900	31	908	- 2.7	69	127	12.6	28	1,077					29	1,037	12.6	33	20	6.4
850	31	1,360	- 5.4	70	156	10.9	28	1,541	6.7	31	5	5.8	29	1,514	9.8	33	26	4.9
800	31	1,833	- 8.1	70	169	10.1	28	2,037	5.1	31	25	6.0	29	2,014	7.0	33	358	2.3
750	31	2,330	-11.1	63	186	10.1	28	2,560	2.9	31	19	4.9	29	2,537	4.0	34	343	2.7
700	31	2,859	-14.3	57	204	11.3	28	3,118	.4		4	2.7	29	3,099	.9	34	339	2.5
650	31	3,414	-17.9	57	214	12.8	28	3,704	- 3.3		312	4.1	29	3,686	- 2.4	27	329	2.5
600	31	4,012	-21.5	52	228	14.6	28	4,337	- 7.0		308	3.3	29	4,322	- 6.6	25	320	3.7
550	31	4,644	-25.6	49	234	18.5	28	5,001	-11.6		298	4.1	29	4,988	-11.3	26	289	4.1
500	31	5,333	-30.2	46	241	23.3	28	5,734	-16.6		314	3.1	29	5,720	-16.7	30	279	5.4
450	31	6,070	-35.0		241	29.5	28	6,506	-22.5		335	5.1	29	6,491	-22.9	25	266	6.2
400	31	6,890	-40.1		241	31.9	28	7,370	-29.4		329	4.5	29	7,354	-29.7	26	277	6.0
350	31	7,790	-45.5		246	37.3	28	8,309	-37.1		356	5.6	29	8,291	-37.2	25	285	7.8
300	30	8,805	-50.5		243	44.1	28	9,356	-45.5		352	7.6	29	9,337	-45.1		268	10.3
250	30	9,985	-53.5		249	43.7	28	10,548	-54.2		329	11.1	29	10,533	-52.7		268	12.4
200	30	11,419	-53.6		254	36.3	28	11,956	-59.3		313	14.6	28	11,952	-56.5		264	18.8
175	30	12,277	-53.6		257	34.0	28	12,791	-60.4		303	17.7	28	12,796	-57.7		257	22.2
150	30	13,267	-53.8		257	33.6	28	13,750	-60.6		289	18.3	27	13,763	-59.7		252	22.9
125	29	14,430	-54.0		257	32.1	28	14,879	-62.7		284	17.7	19	14,889	-61.8		253	25.5
100	29	15,860	-54.0		270	30.5	27	16,253	-64.0		284	16.5	16	16,273	-65.3		244	18.7
80	29	17,289	-55.1		265	35.4	23	17,610	-64.9		285	14.8	10	17,610	-66.2			
70	28	18,147	-55.8		274	35.8	23	18,429	-64.4		292	9.9	5	18,410	-65.4			
60	27	19,118	-56.1		280	38.3	21	19,375	-63.7		288	8.9						
50	26	20,265	-56.9		279	38.3	20	20,489	-62.7		301	5.6						
40	26	21,676	-57.4		290	42.0	17	21,872	-61.8		297	3.7						
30	21	23,499	-58.8		286	35.2	16	23,661	-59.2		304	5.2						
25	17	24,653	-58.4		293	43.7	15	24,800	-59.0		306	6.2						
20	15	26,113	-58.8		292	33.6	14	26,218	-57.6		280	8.2						
15	11	27,917	-58.9				6	28,031	-56.2									
10	5	30,618	-59.8															

Note: All observations scheduled at 1200, G. C. T. Pressures shown under station names are the average monthly station pressures for the month of record, corrected to the height of the floors of the instrument shelters used for rawinsonde purposes. "Number of observations" refers to those of dynamic height only. Although the number of temperature observations at any given pressure surface is usually the same as for height, it is possible for temperature to be missing for one or more pressure surfaces of some observations. Relative humidity averages are limited to those observations with temperatures warmer than -40°C. Observations of wind speed and direction are sometimes lost due to limiting angles, i. e., elevation angles less than 6° above the horizon, or any obstruction above the horizon.

The temperature and wind values are based on 15 or more observations at the surface or 5 observations at a standard pressure level for temperature and 10 for wind. Relative humidity data are not published for standard pressure surfaces for which less than 16 observations are available.

Relative humidity data are computed and expressed on the basis of vapor pressure over water. Unless otherwise indicated, they are obtained from lithium chloride hygristors.

These average values for standard pressure surfaces were obtained by rawinsondes; dynamic height (geopotential) in units of .98 dynamic meter, temperature in degrees Celsius, relative humidity in percent, and resultant winds in degrees and knots.

SOLAR RADIATION DATA

Solar radiation intensities, tabulated in langleys per minute on a surface normal to the direction of the sun.

DECEMBER 1962

Date	Sun's zenith distance								
	A. M.				*	P. M.			
	78.7°	75.7°	70.7°	60.0°		60.0°	70.7°	75.7°	78.7°
	OMAHA, NEBR.								
	Air mass								
	4.78	3.82	2.87	1.91	*	1.91	2.87	3.82	4.78
Dec.									
5-----	----	----	----	----	----	----	HS 1.17	HS 1.01	HS 0.83
8-----	----	HS 1.15	HS 1.25	----	HS 1.33	----	H 1.03	HM .77	HM .54
12----	----	----	HS 1.16	----	----	----	----	----	----
13----	----	----	----	----	HS 1.31	----	HS 1.24	HS 1.12	HS 1.03
16----	HS 0.96	HS 1.04	HS 1.17	----	HS 1.29	----	HS 1.21	HM 1.06	HM .96
17----	----	----	----	----	----	----	HM 1.07	HM .85	HM .75
18----	HI .80	HI .93	----	----	----	----	----	----	----
23----	1.06	1.16	1.27	----	1.37	----	HS 1.30	----	----
26----	.93	1.15	1.26	----	1.36	----	1.30	1.18	----
27----	HS 1.11	HS 1.18	HS 1.23	----	HS 1.34	----	HS 1.24	HS .99	HM .79
28----	HI 1.08	HI 1.15	HI 1.18	----	----	----	HI 1.05	HI .96	HI .89
29----	HS .98	HS 1.18	HS 1.18	----	HS 1.29	----	HS 1.19	HS 1.08	HS .97
30----	----	----	----	----	----	----	HS 1.15	HS 1.02	HS .92
Averages	0.99	1.12	1.21	----	1.33	----	1.18	1.00	0.85
	MAUNA LOA OBS., HAWAII								
	Air mass								
	3.36	2.69	2.01	1.34	*	1.34	2.01	2.69	3.36
Dec.									
4-----	1.28	1.37	1.46	1.57	1.62	----	----	----	----
5-----	1.26	1.35	1.44	1.55	1.63	1.53	1.42	1.33	1.24
6-----	1.28	1.36	1.46	1.57	1.64	1.55	----	----	1.24
7-----	----	----	----	----	----	1.50	1.38	1.29	1.20
10----		Instrument Inoperative							
15----	1.29	1.40	1.49	1.58	1.64	----	----	----	----
16----	1.31	1.40	1.49	1.58	1.65	1.55	----	----	----
17----	1.28	1.35	1.45	1.54	1.62	----	----	----	----
19----	1.32	1.39	1.48	1.58	1.66	1.57	1.44	1.35	1.26
20----	1.27	1.35	1.44	1.55	1.63	1.55	1.43	1.34	1.26
21----	1.24	1.32	1.41	1.53	1.61	----	----	----	----
22----	1.29	1.38	1.47	1.57	----	----	----	----	----
23-31-		Instrument Inoperative							
Averages	1.28	1.37	1.46	1.56	1.63	1.54	1.42	1.33	1.24

H	Haze
S	Slight haze - indeterminable
M	Moderate haze - indeterminable
HS	Slight haze
HM	Moderate haze
HI	Intense haze
*	Values corresponding to true solar noon.

Date	Sun's zenith distance								
	A. M.				*	P. M.			
	78.7°	75.7°	70.7°	60.0°		60.0°	70.7°	75.7°	78.7°
	BLUE HILL OBS., MASS.								
	Air mass								
	4.89	3.92	2.94	1.96	*	1.96	2.94	3.92	4.89
Dec.									
1-----	1.11	1.22	1.35	----	1.45	----	1.34	1.18	1.05
3-----	.93	1.04	1.21	----	1.32	----	1.21	1.05	.93
4-----	.95	1.04	1.16	----	----	----	----	----	----
10----	----	----	----	----	1.33	----	1.22	1.05	.93
11----	1.03	1.13	1.29	----	1.49	----	1.36	1.15	1.05
12----	1.13	1.27	1.42	----	1.50	----	1.41	1.25	1.16
13----	1.21	1.32	1.47	----	1.54	----	1.41	1.25	1.13
14----	----	----	----	----	1.21	----	1.06	.89	75
18----	.95	1.11	1.25	----	1.32	----	1.15	.95	.77
20----	1.24	1.36	1.49	----	1.57	----	1.47	1.33	1.23
21----	1.25	1.35	1.49	----	1.59	----	----	----	----
23----	1.08	1.15	1.28	----	1.34	----	----	----	----
24----	1.05	1.12	1.36	----	1.47	----	----	----	----
30----	1.08	1.18	1.32	----	1.40	----	1.30	1.18	1.08
Averages	1.08	1.19	1.34	----	1.43	----	1.29	1.13	1.01
	TUCSON, ARIZ.								
	Air mass								
	4.56	3.65	2.74	1.83	*	1.83	2.74	3.65	4.56
Dec.									
4-----	----	----	----	----	----	----	----	----	0.92
7-----	0.81	----	----	----	----	----	----	----	----
9-----	1.01	----	----	----	----	----	----	----	----
15----	.94	----	----	----	----	----	----	----	----
17-25-		Instrument Inoperative							
30----	1.09	1.18	1.29	1.43	----	----	----	----	----
31----	----	----	1.04	1.25	----	----	----	----	----
Averages	0.96	1.18	1.17	1.34	----	----	----	----	0.92
	GUAM, M. I.								
	Air mass								
	4.92	3.93	2.95	1.97	*	1.97	2.95	3.93	4.92
Dec.									
11----	----	----	M 0.87	----	----	----	----	----	----
31----	----	----	S 1.02	----	----	----	----	----	----
Averages	----	----	0.95	----	----	----	----	----	----

Langley is the unit used to denote one gram calorie per square centimeter. An explanation of the formula used in computing the air mass values for each station listed above appears in the February 1957 issue, Vol. 8, No. 2, page 63, of this publication.

SOLAR RADIATION DATA

Daily totals and weekly averages of solar radiation (direct and diffuse) received on a horizontal surface, tabulated in langleys.

1962	Albuquerque, N. Mex.	Ames, Iowa	Annette, Alaska	Apalachicola, Fla.	Astoria, Oreg.	Atlanta, Ga.	Bethel, Alaska	Bismarck, N. Dak.	Blue Hill Obs., Mass.	Boise, Idaho	Boston, Mass.	Brownsville, Tex.	Canton Island, Pacific Area	Caribou, Maine	Charleston, S. C.	Cleveland, Ohio	Columbia, Mo.
Dec. 3----	340	190	36	350	77	142	56	70	243	108	188	223	661	56	139	118	142
Dec. 4----	358	140	---	284	11	219	67	82	132	129	86	305	674	136	128	142	59
Dec. 5----	(343)	76	43	76	23	35	15	180	26	212	28	358	680	84	160	6	63
Dec. 6----	316	223	31	392	134	254	16	39	18	197	15	147	646	60	305	16	284
Dec. 7----	329	83	82	371	130	303	68	94	120	---	---	371	640	97	352	64	243
Dec. 8----	325	154	15	246	169	190	62	179	164	---	141	407	615	58	150	112	248
Dec. 9----	314	208	58	380	85	329	12	121	61	---	58	292	661	73	342	152	187
Average------	(332)	153	44	300	90	210	42	109	109	162	86	301	654	80	225	87	175
Dec. 10----	316	61	4	390	161	328	7	134	204	30	186	271	675	62	354	112	94
Dec. 11----	293	150	15	275	160	137	13	155	241	54	214	---	578	135	214	86	235
Dec. 12----	308	209	9	390	29	333	9	108	247	52	220	62	668	156	286	132	287
Dec. 13----	305	205	7	394	31	326	11	36	248	100	219	56	533	173	341	74	255
Dec. 14----	315	181	12	364	45	319	24	144	166	88	138	94	593	93	331	133	264
Dec. 15----	306	198	5	348	67	221	14	156	156	74	139	283	631	160	316	26	178
Dec. 16----	268	154	8	245	57	88	61	154	147	138	123	385	553	108	252	80	254
Average------	302	166	9	344	79	250	20	127	201	76	177	192	604	127	299	92	224
Dec. 17----	266	127	19	325	91	308	54	104	123	52	95	296	666	115	299	45	204
Dec. 18----	---	161	14	242	111	292	54	116	226	57	164	351	679	154	303	132	214
Dec. 19----	215	124	7	137	91	236	25	45	96	76	84	---	630	48	313	43	64
Dec. 20----	247	42	8	196	145	167	5	68	252	55	222	234	(630)	129	288	83	12
Dec. 21----	301	105	47	302	25	31	2	93	225	80	173	91	(663)	162	66	29	43
Dec. 22----	311	39	54	327	147	290	4	132	39	162	23	123	673	33	175	92	82
Dec. 23----	317	220	107	172	154	314	11	193	168	173	153	54	---	86	258	87	268
Average------	276	117	36	243	109	234	22	107	161	93	131	191	(657)	104	243	73	127
Dec. 24----	184	91	70	193	173	60	4	197	240	231	174	45	647	131	298	128	89
Dec. 25----	190	189	21	112	146	32	47	165	104	216	97	84	---	162	57	113	99
Dec. 26----	311	238	12	41	30	174	56	42	209	121	186	---	---	79	137	154	283
Dec. 27----	311	223	66	209	55	95	40	64	244	196	209	59	(658)	157	213	159	260
Dec. 28----	253	205	39	92	47	182	59	105	193	131	181	182	(723)	130	308	156	195
Dec. 29----	317	216	20	98	11	85	51	77	106	180	99	279	697	112	34	33	255
Dec. 30----	321	208	12	318	21	320	40	(137)	234	173	221	119	(699)	35	345	138	251
Dec. 31----	315	64	43	361	103	319	29	123	172	186	158	246	---	70	350	113	129
Average------	275	179	35	178	73	158	41	(114)	188	179	166	145	(685)	109	218	124	195

1962	Corvallis, Oreg.	Davis, Calif.	East Lansing, Mich.	El Paso, Tex.	Ely, Nev.	Fairbanks, Alaska	Flaming Gorge, Utah	Fort Worth, Tex.	Fresno, Calif.	Glasgow, Mont.	Grand Junction, Colo.	Great Falls, Mont.	Greensboro, N. C.	Griffin, Ga.	Cape Hatteras, N.C.	Indianapolis, Ind.	Inyokern China Lake, Calif.	Ithaca, N. Y	Lake Charles, La.	Lander, Wyo.	Laramie, Wyo.
Dec. 3----	154	82	181	367	209	3	76	239	245	128	224	122	183	155	175	142	205	170	---	214	73
Dec. 4----	117	268	180	308	268	3	247	229	137	161	238	145	22	---	15	198	345	180	318	199	179
Dec. 5----	79	119	65	357	271	4	260	340	217	114	285	47	101	43	299	133	351	85	---	219	169
Dec. 6----	147	185	55	354	258	8	225	322	229	106	221	110	230	207	202	108	351	3	339	174	183
Dec. 7----	53	123	76	362	265	9	209	321	237	67	259	61	310	379	314	237	345	37	134	194	111
Dec. 8----	44	165	183	352	261	20	143	219	246	129	268	150	176	226	165	159	348	85	338	210	116
Dec. 9----	34	110	150	355	265	---	245	328	195	69	278	146	271	400	296	180	345	55	347	216	219
Average------	90	150	127	351	257	8	201	285	215	111	253	112	185	235	209	165	327	88	295	204	150
Dec. 10----	48	149	158	355	275	4	256	321	208	84	279	29	295	394	311	233	331	106	336	203	210
Dec. 11----	143	216	222	233	273	6	252	334	210	56	279	172	99	167	194	236	241	147	152	168	125
Dec. 12----	45	72	220	111	275	3	248	322	230	150	278	149	305	393	---	281	345	173	334	228	207
Dec. 13----	33	118	74	338	272	2	254	322	231	152	280	141	253	400	310	81	342	173	343	221	214
Dec. 14----	69	159	149	340	259	1	205	294	227	95	262	56	298	382	291	265	336	183	109	133	161
Dec. 15----	94	39	71	356	263	3	236	301	82	---	277	137	287	287	294	236	327	139	101	195	206
Dec. 16----	51	51	143	288	264	2	240	302	74	111	245	107	244	96	123	60	334	156	296	208	205
Average------	69	115	148	289	269	3	239	314	180	108	272	113	254	303	254	199	322	154	239	194	190
Dec. 17----	78	49	62	154	147	3	240	303	106	92	269	52	276	376	274	203	141	11	318	209	209
Dec. 18----	39	249	141	176	78	2	94	156	72	101	120	51	272	363	276	225	194	20	66	131	120
Dec. 19----	48	214	55	200	---	2	73	60	160	27	126	105	193	225	192	136	324	34	91	187	94
Dec. 20----	52	98	116	287	271	2	169	75	229	80	218	130	56	211	212	34	337	166	234	165	78
Dec. 21----	50	82	145	350	263	4	173	206	107	74	283	76	36	41	27	62	346	120	66	90	110
Dec. 22----	46	65	107	358	266	7	123	319	15	151	246	127	188	295	120	117	319	29	208	226	185
Dec. 23----	52	133	140	242	251	2	158	105	16	156	243	140	258	371	288	196	318	47	174	222	132
Average------	52	127	109	253	213	3	147	175	101	97	215	97	183	269	198	139	283	61	165	176	133
Dec. 24----	188	276	140	269	260	1	125	39	50	107	69	175	191	76	282	111	246	114	46	244	126
Dec. 25----	190	254	73	252	294	2	248	95	136	91	316	98	43	26	23	89	360	116	190	239	244
Dec. 26----	181	276	168	219	278	13	201	301	180	126	323	62	230	167	156	283	360	81	153	197	203
Dec. 27----	146	260	152	266	271	13	256	224	248	131	317	83	93	156	231	248	356	195	202	185	213
Dec. 28----	46	252	210	353	260	14	149	63	250	---	318	115	305	257	273	268	364	158	15	190	202
Dec. 29----	25	257	174	366	272	19	---	71	234	---	316	104	21	83	32	196	312	15	240	134	208
Dec. 30----	39	208	174	365	275	17	272	293	157	---	318	148	303	380	293	174	303	96	---	223	214
Dec. 31----	135	172	230	360	233	13	262	311	124	---	318	73	321	389	325	261	318	107	266	197	218
Average------	119	244	165	306	268	12	216	175	172	114	287	107	188	192	202	204	327	110	159	201	203

Note.--Langley is the unit used to denote one gram calorie per square centimeter.
Values in parentheses are interpolated.

SOLAR RADIATION DATA

Daily totals and weekly averages of solar radiation (direct and diffuse) received on a horizontal surface, tabulated in langleys.

DECEMBER 1962

1962	Las Vegas, Nev.	Lemont, Ill.	Little Rock, Ark.	Los Angeles, Calif.	Los Angeles, Calif. (Urban)	Manhattan, Kans.	Matanuska, Alaska	Mauna Loa Obs., Hawaii	Medford, Oreg.	Miami, Fla.	Midland, Tex.
Dec. 3	218	142	20	215	244	87	9	455	97	294	366
Dec. 4	294	42	118	287	284	205	15	414	118	207	236
Dec. 5	296	84	272	246	(260)	262	31	477	47	351	362
Dec. 6	298	67	276	274	(273)	169	41	482	147	350	356
Dec. 7	293	101	225	237	248	41	46	482	39	274	361
Dec. 8	294	105	263	230	266	234	20	---	51	119	357
Dec. 9	291	114	259	235	235	191	4	477	50	281	364
Average	284	94	205	246	(259)	170	24	464	78	268	343
Dec. 10	284	169	228	156	150	63	9	484	44	423	354
Dec. 11	181	198	80	238	233	263	3	437	61	419	342
Dec. 12	294	235	291	177	180	249	10	461	55	392	365
Dec. 13	290	83	258	235	242	235	6	465	---	418	276
Dec. 14	291	225	253	157	215	237	14	452	168	418	342
Dec. 15	284	174	75	207	229	103	20	446	61	398	357
Dec. 16	290	173	256	221	244	237	4	479	66	381	334
Average	273	180	206	199	213	198	9	460	76	407	339
Dec. 17	125	156	232	181	165	227	6	541	102	344	331
Dec. 18	38	175	225	175	124	154	2	296	145	339	284
Dec. 19	236	47	97	214	237	75	5	561	93	297	315
Dec. 20	292	47	44	260	263	1	8	556	37	308	---
Dec. 21	291	72	34	271	265	44	13	547	24	240	216
Dec. 22	296	44	118	211	273	43	8	---	38	388	351
Dec. 23	269	213	271	102	147	245	---	---	41	377	111
Average	221	108	146	202	211	113	7	501	68	328	268
Dec. 24	261	130	38	184	165	11	9	---	218	290	98
Dec. 25	218	57	61	293	288	146	8	---	208	(366)	90
Dec. 26	300	253	115	299	293	282	10	---	212	422	125
Dec. 27	299	160	172	311	293	244	33	---	180	359	274
Dec. 28	300	229	24	281	276	140	19	---	174	244	310
Dec. 29	303	236	165	305	294	239	13	---	105	298	306
Dec. 30	296	109	260	230	224	240	27	---	63	315	373
Dec. 31	234	211	262	220	226	29	35	---	113	316	331
Average	276	173	137	265	258	167	19	---	159	(326)	238

1962	Newport, R. I.	North Omaha, Nebr.	Oklahoma City, Okla.	Page, Ariz.	Phoenix, Ariz.	Prosser, Wash.	Pullman, Wash.	Rapid City, S. Dak.	Riverside, Calif.	St. Cloud, Minn.	Salt Lake City, Utah	San Antonio, Tex.	Santa Maria, Calif.
Dec. 3	143	97	205	202	302	144	159	99	300	59	95	367	293
Dec. 4	190	201	162	242	305	54	67	166	331	71	255	299	(290)
Dec. 5	41	232	305	243	315	23	151	167	311	99	251	369	(281)
Dec. 6	30	169	290	271	308	140	102	116	335	182	242	367	---
Dec. 7	62	42	273	261	310	110	89	80	314	141	241	360	(289)
Dec. 8	172	242	155	264	311	67	157	186	317	108	232	362	218
Dec. 9	48	119	231	261	313	38	162	---	305	190	240	364	207
Average	98	157	232	249	309	83	127	136	316	122	222	356	(263)
Dec. 10	158	71	281	264	295	27	71	---	188	173	240	341	191
Dec. 11	195	249	243	259	122	19	67	---	245	145	217	289	(165)
Dec. 12	203	251	198	260	231	31	172	---	238	155	58	213	199
Dec. 13	223	229	276	253	302	54	51	---	293	180	28	148	275
Dec. 14	157	215	273	258	302	47	70	---	299	64	54	143	198
Dec. 15	137	99	266	252	306	40	22	---	282	86	75	327	78
Dec. 16	108	221	273	212	228	41	44	---	316	110	47	358	133
Average	169	191	259	251	255	37	71	---	266	130	103	260	(177)
Dec. 17	92	152	265	219	170	48	21	(172)	194	142	174	229	109
Dec. 18	106	188	94	29	122	48	49	154	142	143	69	119	261
Dec. 19	84	125	108	85	177	111	49	19	291	54	119	128	281
Dec. 20	208	80	43	165	286	66	130	58	320	60	137	83	290
Dec. 21	163	113	114	256	301	77	19	67	326	44	204	186	303
Dec. 22	50	69	273	253	312	155	182	162	325	61	164	401	305
Dec. 23	144	250	291	248	312	181	65	132	158	189	99	80	282
Average	121	140	170	179	240	98	74	(109)	251	99	138	175	261
Dec. 24	222	115	55	158	124	175	186	110	69	137	231	71	206
Dec. 25	87	234	54	255	316	191	193	188	317	188	245	87	(283)
Dec. 26	181	260	285	272	182	156	72	60	320	122	241	127	326
Dec. 27	214	253	301	259	256	99	73	186	322	181	244	77	322
Dec. 28	187	243	62	261	300	51	30	140	314	164	214	89	311
Dec. 29	80	252	236	257	325	49	61	172	336	186	241	303	---
Dec. 30	235	246	199	255	322	24	94	174	270	63	256	268	288
Dec. 31	183	79	282	---	319	169	105	169	302	102	223	340	(236)
Average	174	210	184	245	268	115	102	150	281	143	237	170	(282)

1962	S. Ste.Marie, Mich.	Sayville, N. Y.	Seattle, Wash.	Seattle-Tacoma, Wash.	Shreveport, La.	Spokane, Wash.	State College, Pa.	Sterling, Va.	Stillwater, Okla.	Swan Island, W. I.	Tampa, Fla.	Tucson, Ariz.
Dec. 3	56	104	107	126	162	127	234	257	128	302	351	331
Dec. 4	120	149	35	39	309	40	211	155	118	433	355	302
Dec. 5	92	21	41	51	337	80	206	236	271	409	272	272
Dec. 6	37	23	65	133	327	81	21	61	261	366	246	328
Dec. 7	48	35	54	66	313	---	79	107	137	251	244	333
Dec. 8	84	168	52	61	310	99	167	256	153	347	216	334
Dec. 9	138	31	54	62	335	45	73	68	110	271	382	333
Average	82	76	58	77	299	79	141	163	168	340	295	319
Dec. 10	109	175	54	58	325	35	208	265	244	234	378	317
Dec. 11	169	169	93	140	289	---	188	129	180	261	---	145
Dec. 12	131	189	107	149	289	61	246	270	---	522	136	173
Dec. 13	93	183	41	63	315	37	188	263	251	437	389	316
Dec. 14	158	154	56	70	232	33	204	211	242	362	357	322
Dec. 15	84	91	56	68	108	25	117	90	232	391	354	320
Dec. 16	73	46	39	56	101	31	109	125	242	180	126	292
Average	117	144	64	86	237	37	180	193	232	341	290	269
Dec. 17	42	36	30	54	282	20	30	217	241	467	317	133
Dec. 18	54	65	46	41	167	---	71	209	83	428	352	162
Dec. 19	110	46	26	39	108	---	146	46	48	485	342	227
Dec. 20	202	185	98	149	72	---	209	54	23	482	343	289
Dec. 21	161	78	17	24	36	52	52	43	45	475	340	319
Dec. 22	63	34	87	128	272	64	86	177	247	(61)	277	320
Dec. 23	141	94	133	161	291	127	69	235	263	(106)	279	320
Average	110	77	62	85	176	66	95	140	136	(358)	321	253
Dec. 24	218	184	115	158	22	88	165	227	35	471	327	211
Dec. 25	64	43	111	156	65	114	87	60	63	400	256	188
Dec. 26	202	171	56	123	113	46	173	216	278	471	251	263
Dec. 27	99	150	17	30	66	---	57	129	262	411	306	253
Dec. 28	79	182	19	27	27	---	233	259	43	479	165	309
Dec. 29	88	29	11	18	145	---	42	38	246	482	226	342
Dec. 30	200	184	50	50	300	---	188	294	268	492	280	335
Dec. 31	194	100	117	130	328	---	268	302	266	367	328	335
Average	143	130	62	87	133	---	152	191	183	447	267	279

Note.--Langley is the unit used to denote one gram calorie per square centimeter.
Values in parentheses are interpolated.

NET RADIATION

Net radiation in langleys per day (midnight to midnight) at Huntley, Mont., during the month

DECEMBER 1962

Date.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	Avg.
Langleys. . .	18	37	-77	-56	-10	-24	15	54	19	-28	63	-1	-12	27	20	25	49	49	-14	-40	-59	8	-3	-90	-71	-32	-60	-41	12	-18	-21	-8

The measurement is made with a Beckman and Whitley net exchange radiometer over a plot of sod. The value represents the total incoming minus the total outgoing radiation of all wave lengths.

These data are of an experimental nature and are published as received from the Huntley Exp. Station. The instrument with which they were measured has not been checked by the Weather Bureau.

TOTAL OZONE DATA

The total amount of ozone is expressed in 10^{-3} cm. at STP. These data are provisional values applicable to local noon, and are obtained from measurements with a Dobson ozone spectrophotometer using the sun or zenith sky as a light source (see explanation below).

Station	Day of month																														
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31
Bismarck, N. Dak.	399	---	---	---	353	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	363	337	311	---	---	312	---	---	---
Caribou, Maine	286	---	---	---	---	---	---	---	---	---	413	---	384	358	337	---	313	362	---	---	---	---	---	---	---	---	---	---	---	---	---
Green Bay, Wis.	---	---	---	---	---	---	306	---	---	---	388	357	---	---	---	---	265	---	---	---	---	---	339	297	---	350	342	---	343	324	314
Mauna Loa, Hawaii	---	---	---	271	258	255	254	246	249	248	246	247	244	237	237	242	241	---	254	248	247	265	---	---	---	---	---	---	---	---	---
Midland, Texas	---	273	262	259	291	284	289	293	293	285	---	291	279	272	268	249	249	---	263	---	---	242	---	---	---	---	---	287	---	287	288
Nashville, Tenn.	273	273	---	291	---	---	---	---	358	358	---	---	---	286	---	287	272	273	257	---	---	---	272	---	---	---	---	---	---	360	315
Sterling, Va.	---	---	276	275	296	393	---	---	---	377	---	383	357	326	---	---	281	284	293	274	---	---	---	---	---	---	---	---	---	---	---

The spectrophotometer measures the total amount of ozone in the atmosphere, i.e., the amount contained in a vertical column of air extending from the ground to the top of the atmosphere in the vicinity of the station. The amount of ozone in this column is expressed in terms of thickness of a layer it would occupy at standard temperature and pressure.

The standard method of measurement is that on direct sun using A(3055Å and 3254Å) and D(3176Å and 3398Å) wavelength pairs. Observations made on the clear zenith sky are slightly less accurate, and are marked with a dagger (†). Observations made on zenith cloud are least reliable, and are marked with an asterisk (*). A detailed description of the spectrophotometer and observational procedures may be found in the "Observers' Handbook For the Ozone Spectrophotometer", Annals of the International Geophysical Year, Volume V, Pergaman Press, 1957.

CONDENSED CLIMATOLOGICAL SUMMARY

DELAYED DATA

Section	Temperature						Precipitation			
	Monthly extremes						Monthly extremes			
	Station	Highest	Date	Station	Lowest	Date	Station	Greatest	Station	Least
		°F			°F			In		In.
May 1962										
Alaska	Beaver Falls	74	24	Barrow WBAP	-9	1	Whittier	12.96	Mile 47 Camp	T
June 1962										
Alaska	2 Stations	87	20	Eureka	18	5	Yakutat WBAP	13.88	Teller	0.02
Hawaii	Upolu Point USCG	92	3	Mauna Loa Slope Obs.	30	17	N Wailua Ditch	13.40	17 Stations	.00
July 1962										
Alaska	3 Stations	88	31+	Barter Island WBAP	26	5+	Whittier	10.51	Teller	.05
Hawaii	2 Stations	91	31+	2 Stations	32	5+	Kahana, Oahu	16.66	11 Stations	.00
August 1962										
Alaska	Tanacross	90	1	do	26	31	Little Port Walter	12.42	Cape Sarichef Lgt. Sta.	.36
Hawaii	2 Stations	91	19+	Haleakala RS, Maui	38	31	Kahana, Oahu	16.33	11 Stations	.00
September 1962										
Alaska	Beaver Falls	73	1	Allakaket	9	16	Little Port Walter	40.66	Teller	.20
October 1962										
Alaska	2 Stations	65	30+	Alakaket	-24	31	Little Port Walter	32.62	Big Delta FAA	.03

See reference notes with current data.

CORRECTIONS

Month: 1961 Annual

page 18:	Tatoosh Is., Wash.	Excessive precipitation reported as "none". Excessive precipitation occurred, as follows for the intervals 5 through 180 minutes: Feb. 8: 0.25, 0.33, 0.35, 0.40, 0.44, 0.50, 0.54, 0.60, 0.72, 0.78, 0.78, 0.82. Feb. 9: 0.15, 0.23, 0.30, 0.41, 0.53, 0.64, 0.74, 0.88, 0.91, 0.94, 1.02, 1.05.

Month: June 1962

page 295:	New York, N. Y.	Monthly extreme low temperature should be 32° F, on the 10th, and earlier dates.

Month: July 1962

page 356:	Grand Island, Nebr.	Sea-level pressure should be deleted.
page 382:	North Omaha, Nebr. Shreveport, La.	Data are doubtful and should be deleted.

Month: August 1962

page 403:	Alamosa, Colo.	Station elevation should be 7536 feet.
pages 405, 413, 418:	Concordia, Kans.	Delete "U" after name. Station relocated at airport May 16, 1962.
page 407:	Fargo, North Dak.	Percent of possible sunshine should be 82.
pages 409, 417:	Huntington, West Va.	Delete "U" after name. Data from airport Feb. 1961.
page 18:	Nome, Alaska	Accumulated heating degree days should be 802; and for Sept. through Nov., 1561, 2698, and 4161, respectively.
	Cincinnati, Ohio	Heating degree days should be 2, accumulated 4; Sept. accumulated 133; Oct. 311, accumulated 444.

Month: September 1962

page 483:	Midland, Texas Bismarck, N. Dak. Caribou, Maine Green Bay, Wis. Sterling, Va. Nashville, Tenn.	See corrected data on page 644 of this issue.

Month: October 1962

page 536:	Midland, Texas Bismarck, N. Dak. Caribou, Maine Green Bay, Wis. Sterling, Va. Nashville, Tenn.	See corrected data on page 644 of this issue.

EXCESSIVE SHORT DURATION RAINFALL

YEAR 1958

Station and date	Maximum precipitation in inches (5 to 180 minutes)											
	5	10	15	20	30	45	60	80	100	120	150	180
FLORIDA												
Apalachicola												
Jan. 21	0.42	0.46	0.48	0.51	0.53	0.60	0.67	0.74	0.79	0.82	0.84	0.87
Feb. 27	.30	.39	.48	.52	.53	.57	.57	.59	.59	.59	.60	.77
Mar. 2	.23	.29	.38	.40	.41	.61	.72	.80	.82	.82	.84	.84
Mar. 3	.40	.77	1.11	1.32	1.53	1.67	1.73	1.77	1.86	1.90	2.03	2.15
Apr. 9	.19	.28	.41	.46	.49	.55	.60	.66	.68	.74	.96	1.23
Apr. 9	.42	.79	1.10	1.30	1.50	1.66	1.85	2.27	2.86	3.17	3.50	3.50
Apr. 10	.26	.51	.77	.95	1.33	1.64	1.82	1.90	1.91	1.91	1.92	1.93
Apr. 21	.21	.37	.47	.55	.57	.58	.58	.58	.58	.58	.58	.59
May 11	.23	.44	.58	.59	.59	.67	.93	1.22	1.42	1.56	1.73	1.77
May 19	.24	.33	.37	.37	.40	.42	.43	.49	.58	.59	.77	.78
June 19	.24	.32	.42	.49	.63	.73	.99	1.11	1.15	1.34	1.45	1.52
June 22	.19	.32	.41	.43	.55	.63	.64	.64	.64	.65	.65	.65
June 23	.33	.50	.60	.68	1.11	1.24	1.24	1.25	1.30	1.31	1.32	1.32

Station and date	Maximum precipitation in inches (5 to 180 minutes)											
	5	10	15	20	30	45	60	80	100	120	150	180
FLORIDA (Cont'd.)												
Apalachicola (Cont'd.)												
July 4	0.38	0.70	0.97	1.12	1.27	1.57	1.62	1.68	1.82	1.85	1.88	1.88
July 6	.42	.79	1.01	1.12	1.18	1.21	1.30	1.44	1.49	1.49	1.57	1.57
July 12	.24	.29	.38	.38	.39	.39	.39	.39	.39	.39	.39	.39
July 13	.40	.71	.97	1.08	1.18	1.20	1.27	1.27	1.29	1.32	1.35	1.37
July 16	.31	.60	.88	1.01	1.05	1.09	1.10	1.10	1.10	1.11	1.13	1.14
July 17	.26	.47	.56	.72	.99	1.40	1.74	1.93	2.08	2.15	2.17	2.50
July 27	.16	.32	.47	.56	.59	.60	.60	.60	.60	.60	.60	.60
July 28	.22	.39	.46	.48	.57	.58	.59	.59	.59	.59	.59	.59
July 30	.31	.42	.46	.47	.47	.47	.47	.47	.47	.47	.47	.47
Aug. 3	.23	.32	.34	.37	.39	.41	.45	.78	.83	.86	.86	.86
Aug. 26	.24	.38	.38	.38	.39	.53	.58	.63	.70	.77	.79	.87
Sep. 14	.29	.36	.48	.58	.71	.94	1.28	1.30	1.42	1.55	1.77	1.80
Dec. 14	.24	.41	.51	.62	.78	.92	1.22	1.40	1.60	1.69	1.93	1.96

STORM SUMMARY

DELAYED DATA

STATE	TORNADOES					HAILSTORMS				WINDSTORMS				LIGHTNING				‡ HEAVY SNOWSTORMS AND BLIZZARDS				# ICE STORMS				Ø ALL OTHER			
								†DAMAGE				†DAMAGE				†DAMAGE				†DAMAGE				†DAMAGE				†DAMAGE	
	NUMBER	DAYS	DEATHS	INJURIES	†DAMAGE	DEATHS	INJURIES	PROP-ERTY	CROPS	DEATHS	INJURIES	PROP-ERTY	CROPS	DEATHS	INJURIES	PROP-ERTY	CROPS	DEATHS	INJURIES	PROP-ERTY	CROPS	DEATHS	INJURIES	PROP-ERTY	CROPS	DEATHS	INJURIES	PROP-ERTY	CROPS
August 1962																													
Pennsylvania														0	0	5	0												

See reference notes with current data.

SOLAR RADIATION DATA

Solar radiation intensities, tabulated in langleys per minute on a surface normal to the direction of the sun.

Date	Sun's zenith distance								
	A. M.				*	P. M			
	78.7°	75.7°	70.7°	60.0°		60.0°	70.7°	75.7°	78.7°
	OMAHA, NEBR.								
	Air mass								
	4.78	3.82	2.87	1.91	*	1.91	2.87	3.82	4.78
Oct. 1962									
3-----	----	----	HM 0.73	----	----	----	----	----	----
4-----	----	HM 0.56	HM .67	HS 0.86	----	----	----	----	----
8-----	----	HS .92	HS 1.03	HS 1.17	HS 1.27	----	----	----	----
9-----	----	----	HS 1.07	HS 1.23	1.31	HS 1.15	HM 1.03	----	HS 0.78
10----	----	----	----	----	----	----	----	HM 0.78	HM .70
12----	HM 0.68	HM .76	HM .86	----	----	----	----	----	----
14----	----	----	----	----	----	HM 1.07	HM .90	----	HM .63
16----	.92	1.02	1.13	1.28	1.35	1.29	1.13	1.01	†
18----	HS .75	HS 1.00	HS 1.10	HS 1.26	----	HS 1.27	HS 1.15	----	----
21----	----	----	----	HS 1.22	----	----	----	----	----
25----	----	----	HS 1.11	HS 1.25	HS 1.32	----	----	----	----
29----	----	1.01	1.11	1.26	----	----	----	----	----
30----	H .94	1.03	1.16	1.32	1.38	HS 1.34	HS 1.19	HS 1.18	HS .93
Averages	0.82	0.90	1.00	1.21	1.33	1.22	1.08	0.99	0.76

H Haze
HS Slight haze
HM Moderate haze
† Power pole shaddow

Also see reference notes with current data.

RAWINSONDE DATA

Average monthly values

DELAYED DATA

5/ KWAJALEIN, MARSHALL IS.
1010 MB

Standard pressure surface (mb.)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind	
					Direction	Speed
SURFACE	30	4	27.0	84	76	14.8
1000	30	92	26.4	84	76	15.7
950	30	541	23.3	85	78	19.8
900	30	1,016	20.4	82	86	20.2
850	30	[illegible],510	18.0	77	93	20.4
800	30	2,028	15.6	69	91	18.5
750	30	2,571	12.8	66	90	17.1
700	30	3,151	9.7	65	90	14.8
650	30	3,759	6.4	61	91	10.9
600	30	4,417	2.6	60	85	6.4
550	30	5,111	- 1.2	56	90	3.5
500	30	5,872	- 5.4	52	76	1.0
450	30	6,688	-10.3	42	257	2.1
400	30	7,592	-15.7	37	264	7.4
350	30	8,585	-22.5	32	265	9.9
300	30	9,697	-31.1	31	260	13.4
250	30	10,963	-41.2		256	16.9
200	30	12,439	-53.7		256	21.2
175	30	13,283	-60.4		253	24.3
150	29	14,228	-67.5		265	26.6
125	25	15,307	-74.3		264	27.8
100	21	16,585	-79.2		277	14.0
80	16	17,860	-76.4		304	7.4
70	14	18,631	-73.3		293	6.0
60	13	19,544	-67.6		270	4.1
50	11	20,653	-64.3		22	1.6
40	11	22,031	-60.2		81	11.7
30	10	23,842	-55.5		89	32.1
25	10	25,012	-52.8			
20	9	26,463	-49.8			
15	9	28,369	-44.4			
10	6	31,104	-39.6			
7	5	33,554	-35.6			

5/ MERIDA, MEXICO
1014 MB

Standard pressure surface (mb.)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind	
					Direction	Speed
SURFACE	31	11	20.9	92	89	6.2
1000	31	132	22.1	86	95	11.3
950	31	575	20.9	78	119	18.5
900	31	1,046	19.2	62	118	17.1
850	31	1,536	16.4	56	110	11.9
800	31	2,050	13.7	48	105	6.4
750	31	2,584	10.9	39	106	5.8
700	31	3,165	8.1		102	5.1
650	31	3,760	5.1		89	5.4
600	31	4,423	1.5		47	6.2
550	31	5,103	- 2.9		17	7.2
500	31	5,867	- 7.4		354	7.6
450	31	6,674	-12.7		322	8.7
400	31	7,570	-18.8		298	11.9
350	31	8,551	-25.9		287	16.3
300	31	9,649	-34.0		277	23.9
250	31	10,900	-43.3		267	27.0
200	31	12,367	-54.1		272	29.9
175	31	13,213	-59.3		268	30.5
150	31	14,166	-64.7		272	29.9
125	31	15,266	-69.6		275	23.1
100	31	16,585	-72.7		293	11.9
80	31	17,892	-72.4		64	3.1
70	31	18,683	-69.8		75	9.3
60	31	19,609	-65.1		86	12.6
50	31	20,733	-60.1		89	16.3
40	31	22,145	-54.4		81	16.9
30	28	24,001	-50.3		85	21.2
25	25	25,198	-47.4		88	25.1
20	13	26,669	-44.8		84	22.5
15	5	28,588	-40.9			
10						
7						

6/ MERIDA, MEXICO
1012 MB

Standard pressure surface (mb.)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind	
					Direction	Speed
SURFACE	30	11	23.4	96	104	5.8
1000	30	117	23.7	92	111	9.7
950	30	562	22.6	83	131	16.1
900	30	1,038	20.7	73	128	16.1
850	30	1,532	18.4	64	125	13.4
800	30	2,050	15.5	60	122	10.5
750	30	2,585	12.2	56	125	9.7
700	30	3,171	8.7	54	125	8.7
650	30	3,767	5.1	55	121	6.8
600	30	4,431	1.4	49	105	4.3
550	29	5,110	- 2.7	41	96	5.1
500	29	5,876	- 7.0	33	76	4.1
450	29	6,681	-12.1		62	3.1
400	29	7,584	-18.1		31	3.3
350	29	8,569	-24.7		329	3.3
300	29	9,673	-32.6		301	6.6
250	29	10,931	-42.6		284	11.3
200	29	12,399	-54.3		289	14.0
175	29	13,243	-60.4		304	16.5
150	28	14,189	-66.[illegible]		322	15.5
125	28	15,274	-72.5		4	9.5
100	27	16,576	-74.0		47	14.0
80	27	17,890	-69.7		75	20.0
70	27	18,687	-67.5		89	22.2
60	27	19,630	-62.7		93	24.7
50	26	20,762	-58.9		88	26.2
40	26	22,178	-54.3		91	31.8
30	23	24,035	-50.5		94	34.0
25	19	25,233	-48.3		93	33.2
20	15	26,715	-46.1		87	36.1
15						
10						
7						

9/ MERIDA, MEXICO
1013 MB

Standard pressure surface (mb.)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind	
					Direction	Speed
SURFACE	30	11	22.[illegible]	96	113	7.4
1000	30	126	23.9	89	119	9.1
950	30	572	22.9	81	137	13.4
900	30	1,048	20.5	76	132	12.6
850	30	1,541	17.7	69	125	10.9
800	30	2,058	15.1	67	123	9.1
750	30	2,594	12.0	64	124	8.5
700	30	3,179	8.8	61	115	7.4
650	30	3,776	5.3	60	103	6.8
600	30	4,440	1.4	57	100	7.4
550	30	5,119	- 2.5	50	87	6.4
500	30	5,888	- 6.5	44	72	8.0
450	30	6,697	-11.3	40	57	11.5
400	30	7,602	-17.1	34	49	10.1
350	30	8,590	-24.0		44	10.7
300	30	9,697	-32.4		35	11.1
250	30	10,956	-42.5		26	8.6
200	30	12,424	-54.6		357	8.6
175	30	13,266	-61.0		357	11.1
150	30	14,210	-67.1		14	12.4
125	29	15,295	-72.4		27	11.6
100	29	16,602	-72.7		56	16.1
80	29	17,925	-68.6		87	19.6
70	29	18,728	-66.1		91	21.8
60	29	19,670	-63.3		93	24.5
50	29	20,802	-59.0		91	27.2
40	29	22,214	-55.5		88	33.0
30	28	24,067	-51.5		90	36.3
25	28	25,255	-49.8		90	43.9
20	22	26,722	-47.4		89	42.2
15	15	28,654	-43.6		90	46.0
10						
7						

10/ MERIDA, MEXICO
1014 MB

Standard pressure surface (mb.)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind	
					Direction	Speed
SURFACE	31	11	21.8	95	76	4.5
1000	31	134	23.7	85	82	6.6
950	31	579	22.1	77	48	7.3
900	31	1,054	19.7	71	90	9.3
850	31	1,545	16.8	66	81	8.4
800	31	2,061	13.8	67	77	6.[illegible]
750	30	2,592	11.1	60	84	6.2
700	30	3,177	8.0	51	76	4.[illegible]
650	30	3,773	4.9	46	55	5.2
600	30	4,437	1.6	40	55	6.4
550	30	5,117	- 2.0	33	42	6.2
500	30	5,887	- 6.8		48	7.4
450	29	6,691	-11.7		16	7.2
400	29	7,598	-17.8		1	6.8
350	29	8,583	-24.5		329	9.9
300	29	9,687	-32.9		321	10.3
250	29	10,943	-42.9		296	13.8
200	28	12,409	-54.6		294	14.2
175	28	13,251	-61.1		287	13.8
150	28	14,193	-67.8		304	12.0
125	28	15,272	-73.7		310	10.5
100	28	16,565	-75.9		326	6.6
80	26	17,864	-72.3		64	6.8
70	23	18,658	-67.6		83	7.6
60	23	19,593	-62.9		95	11.1
50	23	20,724	-59.6		95	16.5
40	23	22,130	-56.6		90	18.8
30	22	23,974	-52.4		90	24.1
25	21	25,165	-4[illegible].4		88	27.4
20	16	26,639	-47.7		92	29.9
15	13	28,554	-44.4			
10						
7						

6/ OLYMPIA, WASH.
1011 MB

Standard pressure surface (mb.)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind	
					Direction	Speed
SURFACE	30	58	8.5	85	222	3.1
1000	30	150	9.8	80	203	3.9
950	30	580	9.7	72	196	1.6
900	30	1,024	8.0	67	262	3.1
850	30	1,494	6.0	61	322	4.9
800	30	1,988	3.3	55	281	6.8
750	30	2,509	.9	48	281	9.1
700	30	3,061	- 2.2	44	280	11.1
650	30	3,646	- 5.6	38	277	14.0
600	30	4,269	- 9.2	33	271	16.1
550	30	4,934	-13.3	33	274	19.2
500	30	5,656	-18.2	37	268	21.6
450	30	6,430	-23.8	40	268	24.1
400	30	7,284	-30.2	39	271	28.2
350	30	8,221	-36.9		273	29.7
300	30	9,271	-43.9		272	32.8
250	30	10,475	-51.1		274	34.4
200	30	11,907	-55.4		266	32.8
175	30	12,760	-54.8		259	27.8
150	30	13,748	-53.9		256	22.9
125	30	14,918	-54.2		246	17.5
100	30	16,347	-54.7		237	12.8
80	30	17,775	-54.5		226	7.6
70	30	18,634	-54.7		204	3.7
60	30	19,619	-54.6		199	1.0
50	30	20,788	-53.8		108	3.5
40	30	22,226	-52.4		86	7.4
30	30	24,093	-50.4		80	8.5
25	29	25,288	-48.8		80	11.1
20	25	26,761	-46.9		76	12.[illegible]
15	17	28,659	-43.5		89	16.3
10	6	31,367	-36.8			
7						
5						

9/ PONAPE, CAROLINE IS.
1005 MB

Standard pressure surface (mb.)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind	
					Direction	Speed
SURFACE	30	39	24.4	94	154	1.9
1000	30	79	24.9	91	153	2.1
950	30	524	23.9	83	128	3.5
900	30	1,004	21.3	82	123	6.0
850	30	1,499	18.5	81	115	7.2
800	30	2,018	15.7	80	117	7.0
750	30	2,562	12.8	80	115	7.6
700	30	3,143	9.9	77	108	9.7
650	30	3,752	6.5	76	100	10.3
600	30	4,410	2.7	76	103	9.3
550	30	5,105	- 1.1	80	98	9.7
500	30	5,865	- 5.4	79	96	10.1
450	30	6,681	-10.1	76	93	10.9
400	30	7,586	-15.6	66	95	11.1
350	30	8,581	-22.4	57	84	12.2
300	30	9,695	-30.8	54	79	12.6
250	30	10,962	-41.1		73	12.6
200	30	12,438	-53.9		66	12.8
175	30	13,281	-61.4		56	11.1
150	30	14,220	-69.1		50	10.9
125	30	15,288	-76.7		58	8.0
100	25	16,560	-79.0		104	8.4
80	18	17,852	-73.1		93	8.5
70	17	18,640	-70.7		92	8.7
60	16	19,561	-66.9		87	10.3
50	16	20,671	-63.6		90	16.5
40	16	22,053	-60.9		88	35.2
30	16	23,854	-58.1		90	59.7
25	13	25,014	-55.0		90	67.0
20	11	26,441	-51.6		87	76.7
15	10	28,325	-46.7			
10						
7						
5						

5/ SAN NICOLAS, CALIF.
995 MB

Standard pressure surface (mb.)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind	
					Direction	Speed
SURFACE	20	174	11.3	78	336	9.9
1000	20	133				
950	20	569	13.3	50	312	10.3
900	20	1,018	13.3	38	307	9.1
850	20	1,497	12.0	23	306	12.4
800	20	2,003	10.3	29	295	13.0
750	20	2,536	7.7	26	295	13.4
700	20	3,102	4.8	22	280	14.0
650	20	3,700	1.3	20	280	16.5
600	20	4,341	- 3.0	22	273	17.9
550	20	5,015	- 8.1	24	274	20.0
500	20	5,756	-13.1	25	274	22.2
450	20	6,542	-19.7	25	265	28.6
400	20	7,411	-26.5	28	271	29.1
350	20	8,361	-33.[illegible]		269	32.1
300	20	9,424	-41.6		270	41.0
250	20	10,637	-50.5		269	45.3
200	20	12,062	-58.9		267	57.5
175	20	12,896	-60.4		263	56.0
150	20	13,857	-60.3		261	47.6
125	20	14,993	-61.2		260	40.8
100	20	16,371	-63.2		258	34.8
80	20	17,741	-63.2		255	16.5
70	19	18,563	-61.7		248	9.5
60	19	19,522	-60.1		183	1.7
50	19	20,666	-57.7		89	1.0
40	19	22,083	-55.2		86	2.9
30	19	23,930	-52.5		90	2.1
25	19	25,113	-50.4		78	2.9
20	19	26,575	-48.0		61	3.1
15	18	28,484	-44.7		7	2.7
10	17	31,210	-39.5		309	3.7
7	15	33,679	-35.1		301	7.6
5	7	36,036	-32.0			

6/ SAN NICOLAS, CALIF.
993 MB

Standard pressure surface (mb.)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind	
					Direction	Speed
SURFACE	16	174	11.6	87	314	5.4
1000	16	115				
950	16	546	13.5	62	319	6.4
900	16	1,004	16.9	32	315	7.2
850	16	1,491	17.0	26	310	6.6
800	16	2,005	14.5	17	299	7.0
750	16	2,543	11.9	17	276	5.8
700	16	3,121	8.8	14	262	7.4
650	16	3,726	5.0	14	258	8.7
600	16	4,377	.6	14	264	11.1
550	16	5,062	- 3.9	16	265	10.7
500	16	5,816	- 9.4	15	267	13.8
450	16	6,610	-15.6	17	262	19.4
400	16	7,496	-22.5	19	256	21.6
350	16	8,461	-30.0	17	256	25.5
300	16	9,539	-38.8		250	27.4
250	16	10,765	-47.8		250	37.3
200	16	12,209	-56.2		258	45.5
175	16	13,052	-59.0		256	49.7
150	16	14,014	-61.4		252	46.8
125	15	15,148	-64.4		249	35.4
100	15	16,506	-65.4		259	19.4
80	14	17,866	-63.4		220	3.7
70	14	18,698	-61.6		118	4.5
60	13	19,648	-60.2		96	10.7
50	13	20,792	-57.6		87	14.2
40	13	22,210	-54.9		84	16.9
30	13	24,060	-51.8		83	20.8
25	12	25,255	-49.5		81	18.1
20	12	26,723	-47.4		85	18.1
15	12	28,638	-44.3		94	16.9
10	9	31,386	-39.5			
7						
5						

6/ SWAN ISLAND, W. I.
1012 MB

Standard pressure surface (mb.)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind	
					Direction	Speed
SURFACE	30	10	26.7	85	89	8.7
1000	30	113	26.2	84	94	11.7
950	30	560	23.2	83	110	18.1
900	30	1,036	20.4	80	116	20.8
850	30	1,529	17.7	76	115	19.8
800	30	2,046	14.9	70	112	18.1
750	30	2,589	12.1	64	112	17.1
700	30	3,166	9.1	56	114	15.5
650	30	3,770	5.2	55	113	14.2
600	30	4,426	1.5	51	116	12.2
550	30	5,112	- 2.3	46	111	10.7
500	30	5,874	- 6.7	45	103	9.5
450	30	6,679	-11.7	37	93	7.4
400	30	7,582	-17.5	37	98	6.4
350	30	8,568	-24.2		75	3.3
300	30	9,674	-32.4		353	1.4
250	30	10,932	-42.6		323	6.4
200	30	12,397	-55.1		319	8.2
175	30	13,236	-62.0		327	9.9
150	30	14,172	-69.4		345	10.5
125	28	15,240	-75.0		16	9.3
100	24	16,531	-75.6		68	13.2
80	21	17,831	-72.4		82	14.8
70	21	18,626	-69.2		82	18.7
60	21	19,552	-64.9		81	24.3
50	20	20,677	-61.0		86	32.4
40	20	22,079	-56.9		92	30.1
30	20	23,916	-53.2		95	43.3
25	19	25,093	-50.3		94	48.0
20	12	26,547	-47.9			
15						
10						
7						
5						

6/ TRUK, CAROLINE IS.
1010 MB

Standard pressure surface (mb.)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind	
					Direction	Speed
SURFACE	30	2	26.2	87	86	2.1
1000	30	89	26.3	85	86	2.9
950	30	536	24.1	84	95	7.2
900	30	1,015	21.1	83	97	8.0
850	30	1,509	18.3	81	97	[illegible].4
800	30	2,028	15.6	79	95	9.3
750	30	2,576	13.0	74	88	10.9
700	30	3,154	10.0	67	92	12.8
650	30	3,769	6.4	66	91	14.8
600	30	4,421	2.4	67	95	15.2
550	30	5,118	- 1.4	67	95	15.2
500	30	5,876	- 5.6	58	96	15.2
450	30	6,692	-10.6	53	102	12.0
400	30	7,594	-16.2	46	95	7.4
350	30	8,586	-23.0	45	95	5.6
300	30	9,697	-31.4	39	77	2.9
250	30	10,960	-41.6		73	2.3
200	30	12,432	-54.2		254	1.0
175	30	13,275	-61.2		315	4.5
150	30	14,215	-68.7		274	4.1
125	30	15,287	-75.7		264	7.8
100	29	16,566	-78.3		266	3.9
80	22	17,845	-73.7		254	4.1
70	22	18,632	-69.7		331	1.6
60	22	19,561	-66.0		41	3.9
50	22	20,676	-62.7		78	8.5
40	22	22,066	-59.1		90	21.8
30	20	23,885	-55.4		92	47.2
25	20	25,054	-53.2		95	55.4
20	18	26,511	-49.4		93	69.9
15	18	28,413	-45.6		91	75.0
10	17	31,146	-40.4		92	76.7
7	13	33,627	-36.[illegible]		91	61.8
5	[illegible]	35,935	-34.7			

9/ TRUK, CAROLINE IS.
1009 MB

Standard pressure surface (mb.)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind	
					Direction	Speed
SURFACE	29	2	26.0	89	160	1.4
1000	29	85	26.1	86	153	1.7
950	29	530	23.6	83	165	2.1
900	29	1,009	20.8	82	173	1.6
850	29	[illegible],503	18.0	81	121	1.9
800	29	2,021	15.3	79	123	4.3
750	29	2,569	12.5	78	113	4.7
700	29	3,144	9.5	76	119	5.2
650	29	3,759	6.2	77	96	6.8
600	29	4,411	2.6	77	103	9.5
550	29	5,108	- 1.3	79	102	9.9
500	29	5,866	- 5.6	80	100	11.3
450	29	6,686	-10.1	68	92	12.2
400	29	7,587	-15.7	63	94	11.7
350	29	[illegible],581	-22.3	56	88	12.6
300	29	9,695	-30.8	47	85	13.4
250	29	10,961	-41.2		81	15.2
200	29	12,435	-53.8		77	17.1
175	29	13,279	-61.0		76	16.3
150	29	14,220	-68.7		69	15.5
125	29	15,289	-76.8		68	10.7
100	28	16,559	-77.6		91	11.5
80	28	17,851	-73.7		103	11.9
70	27	18,638	-69.9		101	11.5
60	25	19,564	-66.5		89	12.8
50	24	20,670	-64.4		97	19.6
40	23	22,042	-61.0		94	34.0
30	22	23,850	-56.6		94	58.1
25	21	25,014	-53.8		94	65.1
20	19	26,458	-50.3		90	69.0
15	16	28,354	-46.2		91	68.6
10						
7						
5						

7/ YUCCA FLAT, NEV.
882 MB

Standard pressure surface (mb.)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind	
					Direction	Speed
SURFACE	21	1,196	13.4	34	7	3.1
1000	21	119				
950	21	557				
900	21	1,020				
850	21	1,517	23.0		225	1.0
800	21	2,041	19.9		209	6.0
750	21	2,585	15.6		201	8.2
700	21	3,172	10.9		201	8.9
650	21	3,776	5.7		188	10.3
600	21	4,431	.3		177	9.9
550	21	5,112	- 4.6		196	9.3
500	21	5,867	- 9.6		225	12.2
450	21	6,663	-15.6		240	15.5
400	21	7,549	-22.2		245	19.6
350	21	8,517	-29.3		243	24.1
300	21	9,601	-37.3		242	28.2
250	21	10,837	-45.8		235	37.7
200	18	12,293	-53.7		235	42.9
175	16	13,139	-57.5		236	39.1
150	16	14,103	-61.4		241	30.5
125	16	15,224	-65.0		250	19.0
100	15	16,581	-65.8		211	9.9
80	15	17,937	-63.9		149	4.7
70	15	18,765	-61.6		100	7.6
60	15	19,720	-58.7		92	9.7
50	14	20,870	-55.6		91	11.7
40	13	22,300	-52.9		82	22.3
30	12	24,172	-50.4		86	23.5
25	9	25,363	-48.2			
20	8	26,842	-45.5			
15						
10						
7						
5						

9/ YUCCA FLAT, NEV.
881 MB

Standard pressure surface (mb.)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind	
					Direction	Speed
SURFACE	30	1,196	9.3	36	10	.6
1000	30	122				
950	30	555				
900	30	1,014				
850	30	1,502	20.3	25	263	.8
800	30	2,022	17.7	24	200	8.0
750	30	2,564	13.8	26	204	9.3
700	30	3,145	9.2	30	215	8.7
650	30	3,750	4.7	31	207	7.4
600	30	4,401	.5		221	7.8
550	30	5,086	- 4.2		252	11.1
500	30	5,838	- 9.2		260	13.8
450	30	6,635	-15.0		256	15.9
400	30	7,524	-21.9		263	22.3
350	30	8,494	-29.3		264	24.9
300	29	9,574	-37.2		267	32.1
250	29	10,811	-45.8		259	39.4
200	28	12,270	-53.9		256	44.9
175	28	13,119	-57.8		259	44.9
150	28	14,082	-61.9		259	39.6
125	28	15,200	-65.6		261	31.5
100	27	16,547	-67.1		265	16.5
80	27	17,898	-65.0		272	3.9
70	27	18,714	-63.1		321	.6
60	27	19,670	-60.2		67	3.5
50	27	20,813	-57.7		79	5.8
40	26	22,231	-55.0		79	3.9
30	26	24,081	-52.1		68	4.5
25	23	25,273	-50.1		81	5.2
20	20	26,737	-48.2		89	4.7
15						
10						
7						
5						

2/ SWAN ISLAND, W.I.
1014 MB

Standard pressure surface (mb.)	Number of observations	Dynamic height	Temperature	Relative humidity	Wind	
					Direction	Speed
SURFACE	27	10	24.8	77	[illegible]	8.4
1000	27	133	24.0	77	88	11.7
950	27	577	20.6	77	97	15.2
900	27	1,046	17.1	74	106	14.8
850	27	1,532	14.0	70	109	14.2
800	27	2,042	11.8	57	105	13.0
750	27	2,581	9.9	38	101	12.4
700	27	3,153	8.5		100	8.5
650	27	3,760	5.8		100	5.6
600	27	4,413	2.5		112	2.1
550	27	5,107	- 1.0		123	1.7
500	27	5,867	- 6.2		151	1.2
450	27	6,675	-11.9		274	3.3
400	27	7,574	-18.[illegible]		291	8.0
350	27	8,557	-25.6		268	15.9
300	27	9,655	-34.2		272	23.1
250	27	10,907	-43.4		259	31.3
200	27	12,374	-54.1		258	33.6
175	27	13,220	-59.6		264	29.5
150	26	14,171	-64.8		264	28.2
125	26	15,268	-70.6		271	20.6
100	26	16,571	-76.7		286	9.9
80	26	17,841	-79.9		22	3.1
70	25	18,606	-77.7		58	5.2
60	25	19,496	-72.9		63	4.9
50	24	20,580	-67.3		51	6.4
40	24	21,945	-61.4		59	9.9
30	24	23,757	-56.2		79	15.9
25	23	24,921	-53.6		87	15.7
20	20	26,367	-50.2		83	13.8
15	13	28,254	-47.5		94	17.3
10	7	30,937	-45.7			
7						
5						

5/ May 1962
6/ June 1962
7/ July 1962
9/ September 1962
10/ October 1962
2/ February 1962

Also see reference notes with current data.

SOLAR RADIATION DATA

Daily totals and weekly averages of solar radiation (direct and diffuse) received on a horizontal surface, tabulated in langleys.

DELAYED DATA

	Atlanta, Ga.		Ames, Iowa	Atlanta, Ga.		Ames, Iowa	Atlanta, Ga.	Portland, Maine		Ames, Iowa	Atlanta, Ga.	Fresno, Calif.	Inyokern China Lake, Calif.	Lemont, Ill.	Manhattan, Kans.	Phoenix, Ariz.	S. Ste. Marie, Mich.		Atlanta, Ga.	Dodge City, Kans.	Fresno, Calif.	Phoenix, Ariz.	Pullman, Wash.	S. Ste. Marie, Mich.		Annette, Alaska	North,Omaha, Nebr.	Pullman, Wash.	Shreveport, La.
1962		Apr.			May				Jun.									Jul.							Aug.				
Mar. 5-----	439	2	372	---	7	---	682	702	4	359	429	664	924	246	654	597	148	2	675	738	793	623	820	688	6	499	536	384	627
Mar. 6-----	316	3	260	---	8	---	598	371	5	652	511	658	913	542	624	596	378	3	405	746	773	464	844	818	7	641	662	252	629
Mar. 7-----	537	4	198	---	9	270	680	777	6	281	653	654	906	412	517	609	827	4	661	590	760	670	285	809	8	297	---	---	606
Mar. 8-----	267	5	430	---	10	193	467	777	7	373	615	648	905	545	351	602	801	5	549	730	772	710	543	642	9	152	601	496	601
Mar. 9-----	---	6	338	---	11	375	558	752	8	251	645	---	926	492	208	600	804	6	---	561	803	726	501	797	10	199	501	---	505
Mar. 10-----	---	7	522	---	12	381	671	598	9	437	512	771	906	377	509	614	339	7	603	720	794	738	812	576	11	279	701	695	572
Mar. 11-----	---	8	134	---	13	586	661	767	10	446	314	807	903	510	709	622	135	8	515	526	783	724	813	225	12	462	685	---	580
Average-------	390		322	---		361	617	678		400	526	700	912	446	510	606	490		487	659	782	665	660	651		362	614	457	589
Mar. 12-----	543	9	576	---	14	527	640	61	11	629	457	806	932	585	507	634	537	9	755	533	774	672	786	810	13	450	682	714	614
Mar. 13-----	557	10	448	---	15	611	686	148	12	765	543	802	915	756	669	631	867	10	696	719	788	700	828	405	14	361	647	696	405
Mar. 14-----	315	11	128	---	16	593	696	---	13	758	477	771	---	758	645	620	865	11	630	729	723	---	771	676	15	110	524	673	598
Mar. 15-----	449	12	117	---	17	581	651	---	14	723	710	228	---	721	698	670	887	12	445	576	769	721	600	809	16	211	655	588	565
Mar. 16-----	565	13	582	---	18	469	593	577	15	689	773	626	872	712	653	670	869	13	665	700	770	747	804	666	17	301	507	657	630
Mar. 17-----	598	14	650	---	19	688	648	587	16	657	752	686	825	709	680	641	697	14	685	702	758	733	782	797	18	103	611	613	617
Mar. 18-----	582	15	652	---	20	646	708	644	17	529	533	757	901	695	489	652	542	15	436	743	767	739	712	778	19	112	478	669	---
Average-------	516		450	---		588	661	403		679	606	668	889	705	620	645	752		616	672	764	719	755	706		236	586	658	571
Mar. 19-----	460	16	266	---	21	592	690	608	18	738	652	756	911	679	599	---	291	16	632	643	742	735	721	455	20	134	240	660	---
Mar. 20-----	213	17	637	---	22	399	627	783	19	585	655	765	925	348	649	744	526	17	562	711	738	713	639	735	21	351	616	583	586
Mar. 21-----	552	18	627	---	23	331	557	782	20	727	217	767	901	535	582	744	598	18	554	728	743	684	726	701	22	81	264	655	322
Mar. 22-----	300	19	651	---	24	697	680	95	21	465	757	765	909	497	535	---	620	19	681	664	746	679	767	576	23	391	182	669	463
Mar. 23-----	536	20	98	---	25	446	663	668	22	468	745	763	904	554	619	777	513	20	553	732	723	684	784	91	24	347	406	650	500
Mar. 24-----	549	21	516	719	26	272	645	574	23	661	625	795	951	494	671	775	698	21	664	725	728	448	770	560	25	330	632	612	484
Mar. 25-----	84	22	496	692	27	354	654	788	24	660	658	796	962	689	456	773	900	22	691	660	731	670	758	593	26	327	621	172	610
Average-------	385		470	---		441	645	614		615	616	772	923	542	587	762	593		620	695	736	659	738	530		280	423	572	494
Mar. 26-----	155	23	649	651	28	167	607	816	25	588	674	819	940	657	602	---	816	23	684	412	751	683	751	782	27	185	615	462	544
Mar. 27-----	601	24	631	226	29	513	574	771	26	724	621	810	941	697	466	647	831	24	460	196	743	688	746	611	28	535	565	227	445
Mar. 28-----	610	25	642	375	30	709	478	718	27	688	439	796	958	689	632	---	755	25	342	700	766	688	605	263	29	492	543	648	61
Mar. 29-----	546	26	635	426	31	733	513	593	28	673	292	787	898	577	593	---	741	26	637	704	735	668	582	520	30	327	261	596	311
Mar. 30-----	236	27	228	327	Jun.1	614	583	689	29	397	673	789	935	570	419	703	571	27	728	466	735	635	---	750	31	497	584	617	446
Mar. 31-----	164	28	120	350	2	493	540	494	30	504	750	787	951	444	641	739	769	28	226	608	723	689	---	468	Sep.1	509	605	605	516
Apr. 1-----	614	29	328	523	3	90	712	800	Jul.1	315	755	803	936	555	632	750	794	29	384	598	738	678	---	308	2	514	554	595	527
Average-------	418		462	411		474	573	697		556	600	799	937	599	569	710	754		494	526	741	676	671	529		437	532	536	407
		30	162	---														30	613	468	738	641	742	212					
		May 1	597	---														31	693	493	729	670	712	477					
		2	663	---														Aug.1	666	573	721	665	700	729					
		3	675	---														2	598	638	730	523	379	647					
		4	627	---														3	498	702	732	684	412	486					
		5	544	573														4	514	689	723	693	503	454					
		6	619	711														5	632	694	729	681	398	570					
		Avg.	555	---														Avg.	602	608	729	651	549	511					

Note.--Langley is the unit used to denote one gram calorie per square centimeter.
Values in parentheses are interpolated.

SOLAR RADIATION DATA

Daily totals and weekly averages of solar radiation (direct and diffuse) received on a horizontal surface, tabulated in langleys.

DELAYED DATA

	Stillwater, Okla.		Corvallis, Oreg.	Davis, Calif.	Inyokern China Lake, Calif.	Ithaca, N. Y.	Pullman, Wash.	Seattle, Wash.		Ithaca, N. Y.	Page, Ariz.	Pullman, Wash.
1962		Sep.							Oct.			
Aug. 6-----	630	3	563	628	---	558	---	490	1	427	501	448
Aug. 7-----	603	4	590	613	771	207	590	516	2	398	502	362
Aug. 8-----	608	5	564	573	770	92	---	494	3	321	483	412
Aug. 9-----	606	6	546	584	741	526	587	481	4	89	480	150
Aug. 10-----	598	7	556	588	723	544	424	363	5	113	---	418
Aug. 11-----	602	8	561	577	714	527	580	473	6	---	469	85
Aug. 12-----	598	9	534	585	717	240	566	421	7	80	465	231
Average-------	606		559	593	739	385	549	463		238	483	301
Aug. 13-----	320	10	69	558	712	248	95	131	8	150	467	327
Aug. 14-----	591	11	431	562	727	104	513	352	9	63	460	107
Aug. 15-----	482	12	187	590	726	444	331	378	10	249	458	100
Aug. 16-----	593	13	374	567	726	466	260	125	11	141	455	43
Aug. 17-----	573	14	442	560	729	148	---	318	12	212	435	84
Aug. 18-----	568	15	553	564	693	492	---	438	13	356	443	124
Aug. 19-----	573	16	531	559	693	506	---	460	14	195	454	61
Average-------	528		370	566	715	344	300	315		195	453	121
Aug. 20-----	563	17	512	556	692	85	511	453	15	306	348	376
Aug. 21-----	559	18	395	576	664	276	498	383	16	298	347	363
Aug. 22-----	542	19	339	554	669	195	412	209	17	314	---	357
Aug. 23-----	564	20	127	541	699	---	412	209	18	247	---	195
Aug. 24-----	313	21	132	525	676	210	378	127	19	334	377	242
Aug. 25-----	609	22	379	522	653	157	456	112	20	274	415	272
Aug. 26-----	606	23	486	530	634	354	452	224	21	22	---	214
Average-------	537		339	543	670	213	445	245		256	372	289
Aug. 27-----	592	24	428	515	616	423	454	350	22	211	---	319
Aug. 28-----	565	25	359	473	609	137	465	337	23	127	---	317
Aug. 29-----	562	26	236	501	575	159	409	146	24	241	---	315
Aug. 30-----	559	27	298	262	586	57	208	275	25	188	---	301
Aug. 31-----	129	28	---	314	615	73	56	94	26	107	---	167
Sep. 1-----	390	29	---	470	623	70	388	159	27	139	---	281
Sep. 2-----	431	30	412	504	607	338	425	353	28	192	---	288
Average-------	461		347	434	605	180	344	245		172	---	284
									29	211	---	296
									30	55	---	75
									31	104	363	54
									Nov.1	44	367	225
									2	125	361	210
									3	47	302	35
									4	117	334	199
									Avg.	100	345	156

Note.--Langley is the unit used to denote one gram calorie per square centimeter.
Values in parentheses are interpolated.

NET RADIATION

Net radiation in langleys per day (midnight to midnight) at Huntley, Mont. **during the month**

DELAYED DATA

Station	Day of month																														
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31
January 1962	---	-33	-25	-49	-29	-36	*	*	-58	-86	-28	29	*	*	---	*	4	-5	-16	4	-82	-118	-90	-62	-65	17	4	-32	59	78	59
February 1962	---	---	100	5	2	25	47	119	---	127	-11	80	137	39	36	89	107	65	119	63	38	42	11	52	27	54	32	47			
March 1962	53	51	100	†	†	†	†	†	†	†	†	†	28	37	150	296	275	292	238	289	*	283	#	240	75	260	139	86	250	107	225
April 1962	288	256	233	296	-8	196	71	180	192	244	142	312	256	306	237	327	321	297	320	256	249	330	333	337	#	#	#	---	---	297	
May 1962	240	349	328	228	347	263	389	#	#	312	410	#	#	#	#	#	369	384	---	#	#	---	430	---	#	#	#	---	---	---	---
June 1962	‡231	489	#	---	#	#	---	433	#	---	312	472	372	125	277	214	500	471	433	285	326	449	453	414	480	540	450	473	481	503	
July 1962	454	490	401	496	464	492	455	498	416	441	438	305	---	161	332	317	409	177	415	447	437	426	441	428	353	289	104	436	352	---	---

* Snow cover
† Equipment inoperative
# Rain
‡ Estimated data

Also see footnotes with current data.

TOTAL OZONE DATA

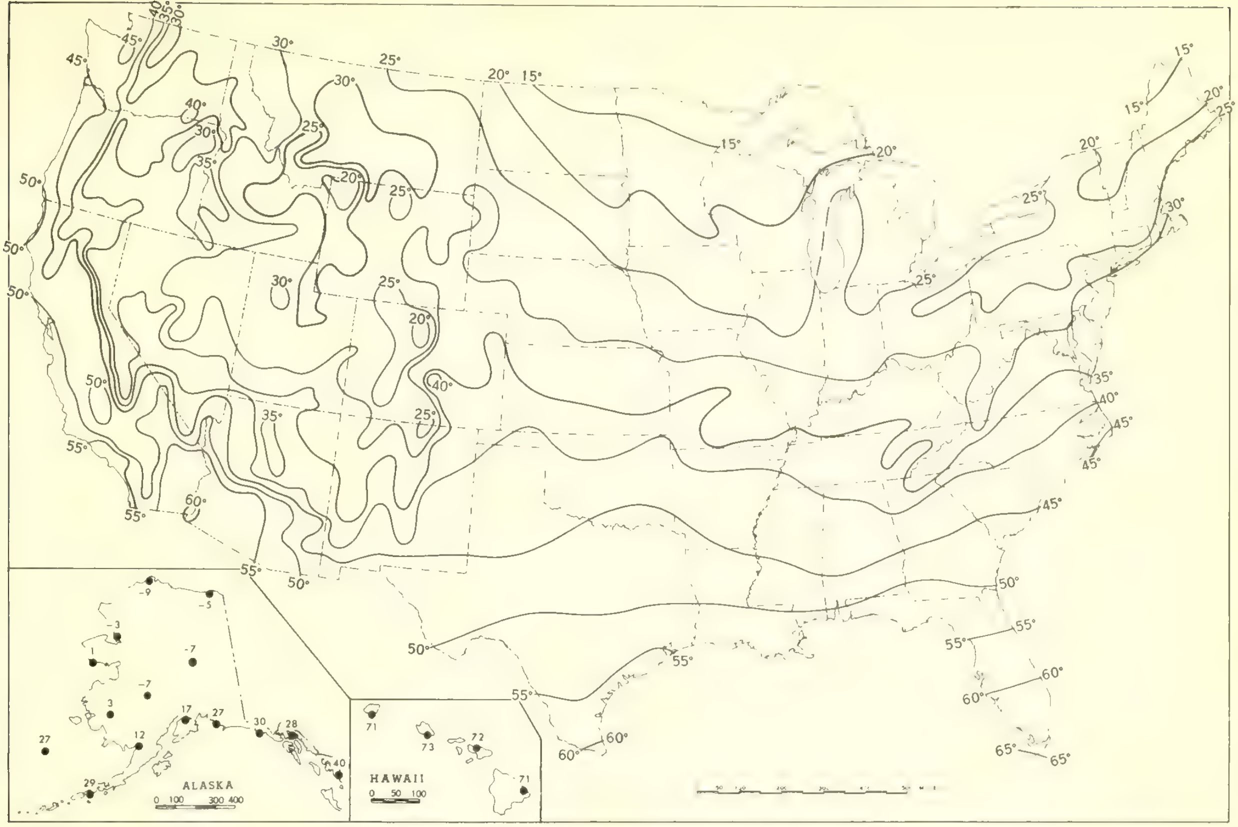
The total amount of ozone is expressed in 10^{-3} cm. at STP. These data are provisional values applicable to local noon, and are obtained from measurements with a Dobson ozone spectrophotometer using the sun or zenith sky as a light source (see explanation below).

Station	Day of month																														
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31
August 1962																															
Midland, Texas	285	295	285	---	---	300	291	286	277	230	285	---	---	280	278	284	280	302	290	293	285	276	274	270	285	299	276	280	273	273	272
September 1962																															
Bismarck, N. Dak. ‡	302	308	---	286	286	285	285	---	---	285	284	281	277	274	263	---	281	256	268	279	264	282	---	278	260	242	260	---	---	---	
Caribou, Maine ‡	281	---	293	295	---	---	---	312	316	---	---	343	289	323	326	325	331	341	---	337	331	333	333	302	304	---	334	318	---	320	
Green Bay, Wis. ‡	262	278	255	---	276	277	275	---	---	---	272	254	---	259	249	---	---	268	311	294	---	309	---	---	284	297	259	280	274	---	
Midland, Texas ‡	---	---	---	263	---	---	278	283	272	276	272	---	277	278	276	271	270	265	254	272	292	255	266	269	---	---	282	270	282	261	
Nashville, Tenn. ‡	279	282	285	288	291	292	292	---	287	291	296	290	290	289	291	---	292	292	300	300	298	---	300	---	---	305	298	298	300	290	
Sterling, Va. ‡	---	---	---	---	327	298	317	---	---	308	---	283	287	290	---	---	---	---	290	320	306	---	---	309	298	---	---	321	---	---	
October 1962																															
Bismarck, N. Dak. ‡	266	279	269	262	255	---	---	---	---	274	---	---	---	---	---	---	---	249	---	229	---	259	279	312	280	268	265	263	---	252	---
Caribou, Maine ‡	---	259	242	275	---	---	---	287	287	---	---	---	---	---	295	282	262	284	288	---	---	---	---	---	---	---	---	---	---	309	---
Green Bay, Wis. ‡	257	---	---	---	---	---	---	---	273	---	263	256	---	---	239	230	250	236	241	257	259	---	270	317	341	308	263	286	---	312	288
Midland, Texas ‡	264	268	257	258	309	270	277	293	255	259	256	247	247	275	250	274	---	---	---	261	287	267	281	---	---	279	---	282	281	284	282
Nashville, Tenn. ‡	---	---	286	295	270	---	258	271	275	268	271	258	324	275	265	---	262	261	295	275	---	285	286	298	313	311	292	290	---	---	309
Sterling, Va. ‡	287	273	---	---	275	---	---	272	287	278	268	277	---	---	---	275	271	269	274	---	---	298	294	316	---	---	---	---	287	---	---

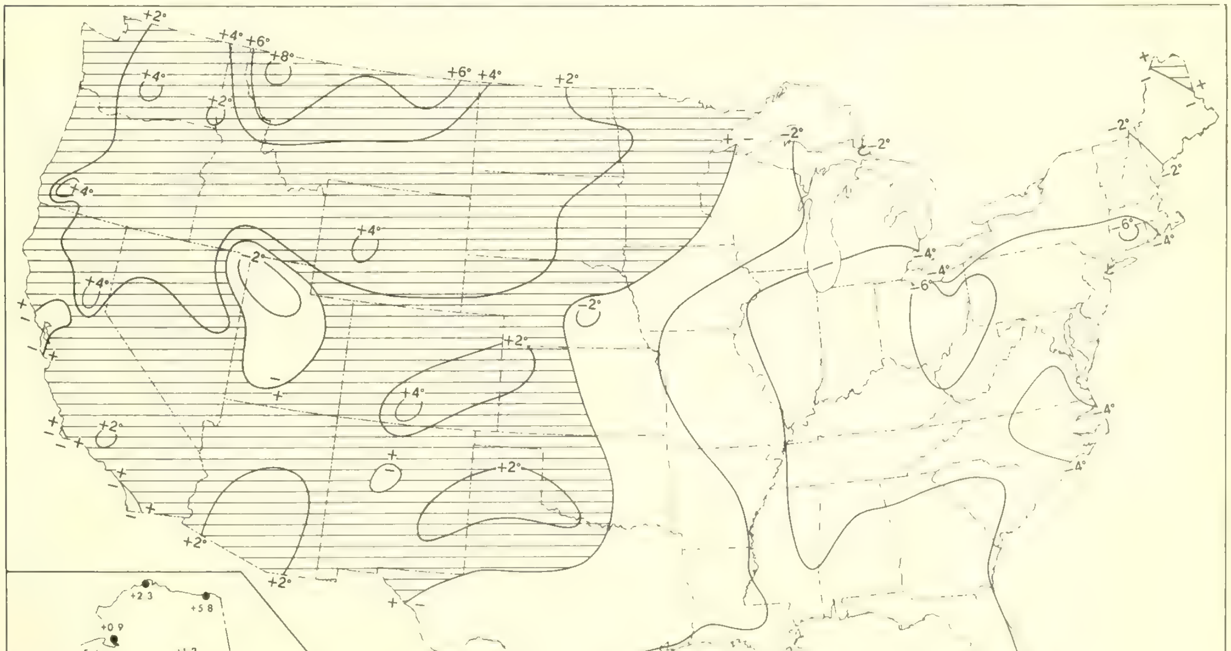
‡ These are corrected data.

Also see reference notes with current data.

Chart I. A. Average Temperature (°F.) at Surface, December 1962.



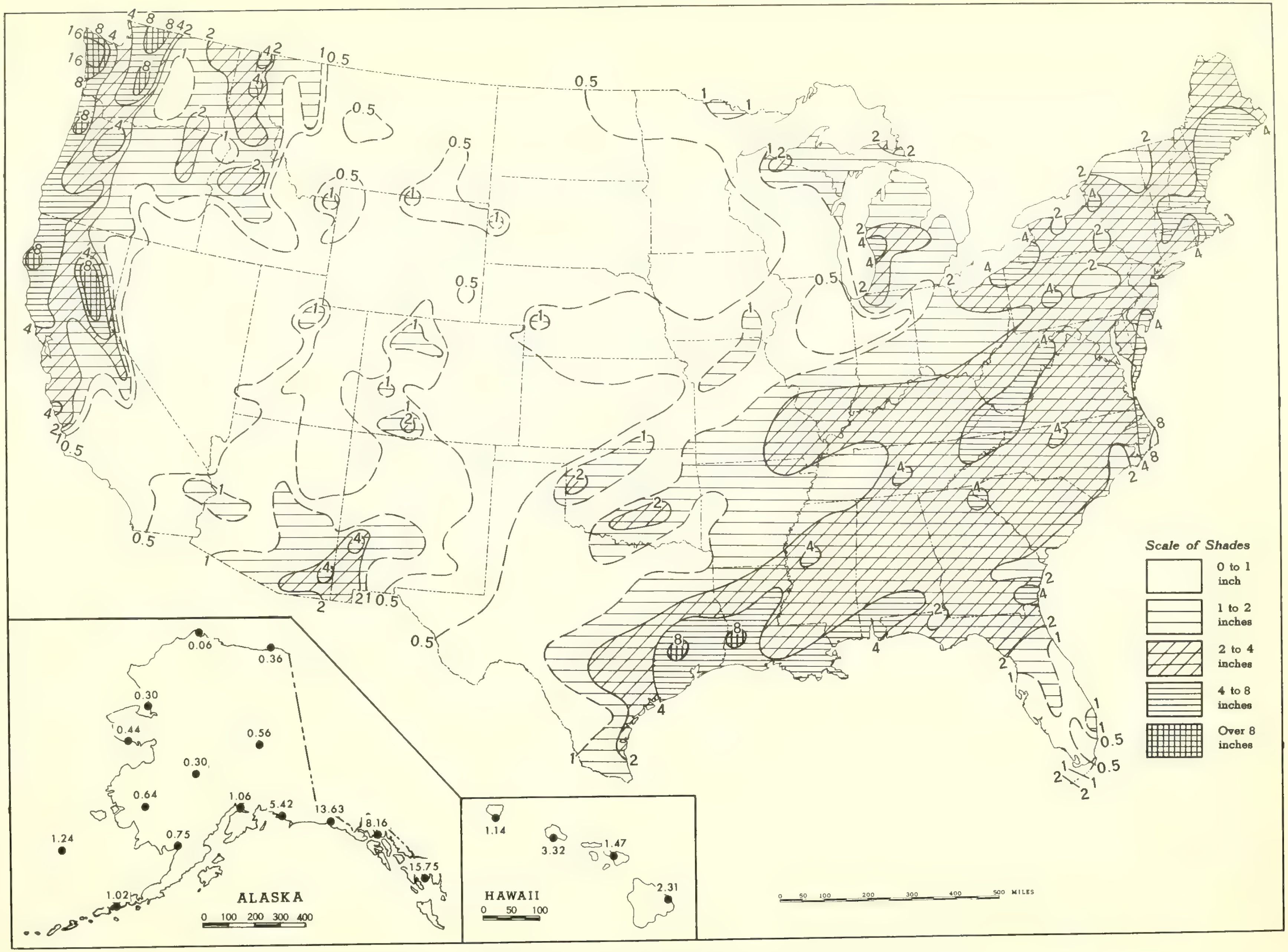
B. Departure of Average Temperature from Normal (°F.), December 1962.



A. Based on reports from over 870 Weather Bureau and cooperative stations. The monthly average is half the sum of the monthly average maximum and monthly average minimum, which are the average of the daily maxima and daily minima, respectively.

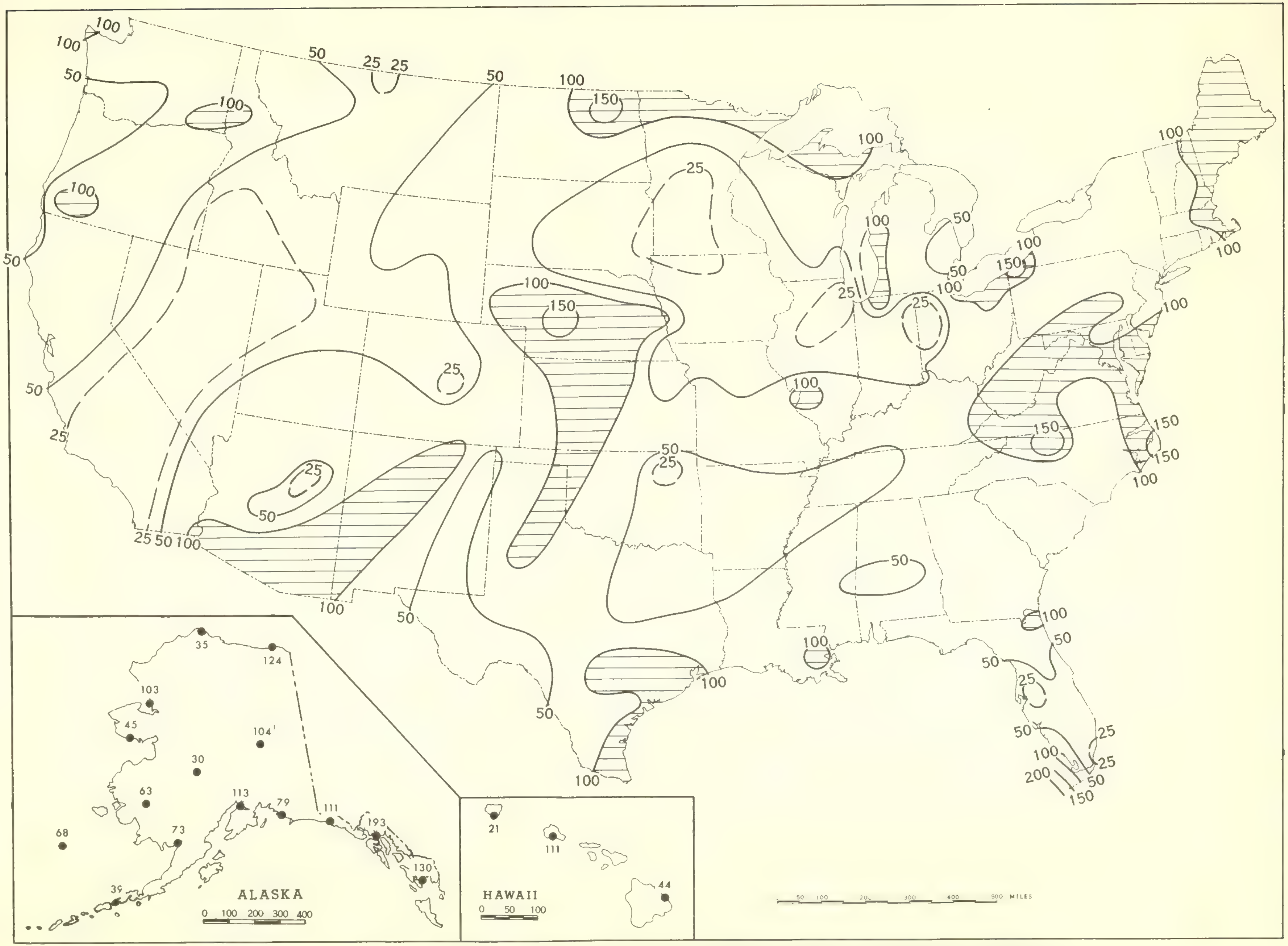
B. Departures from normal are based on the 30-yr. normals (1931-60) for first-order Weather Bureau stations.

Chart II. Total Precipitation (Inches), December 1962.



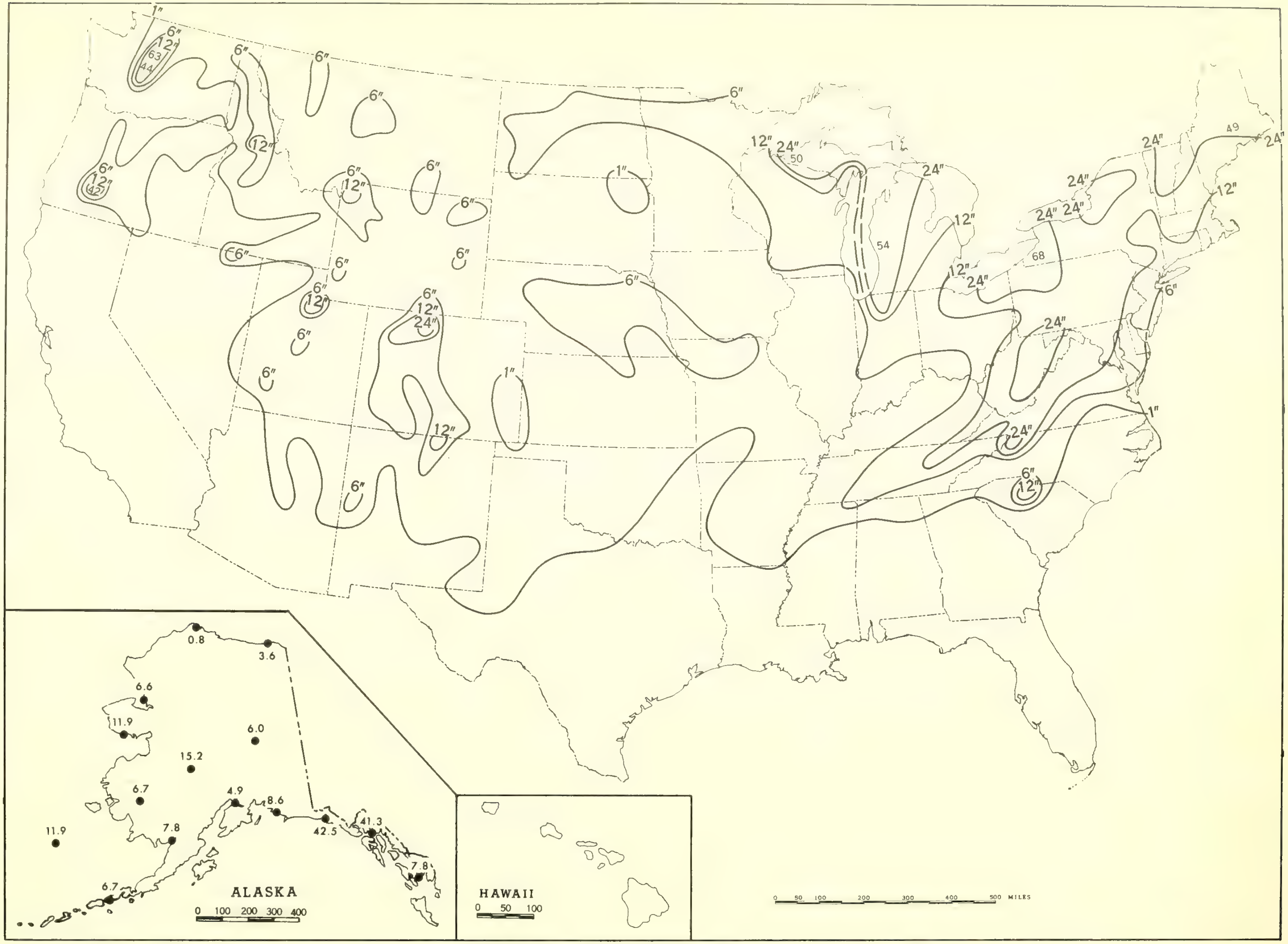
Based on daily precipitation records at about 870 Weather Bureau and cooperative stations.

Chart III. Percentage of Normal Precipitation, December 1962.



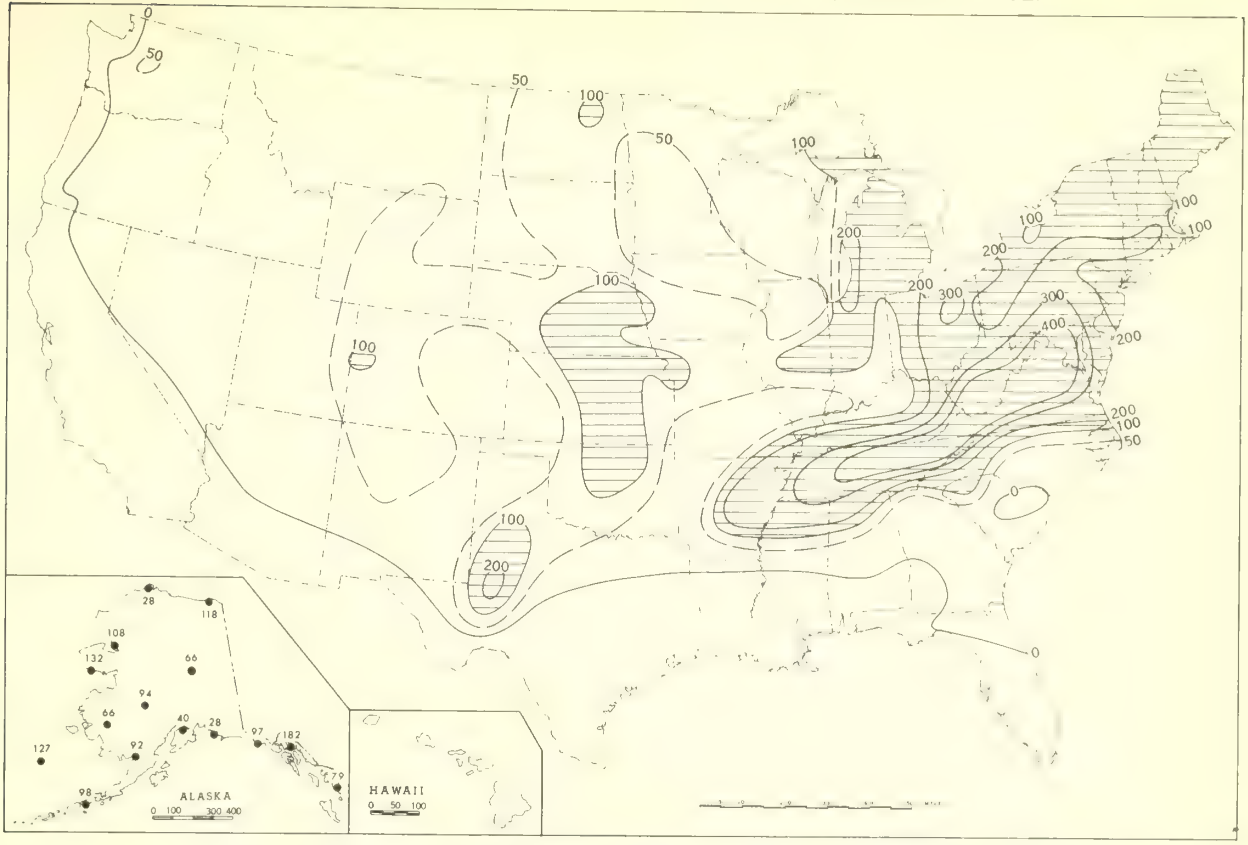
Normal monthly precipitation amounts are computed from 30-yr. normals (1931-60) for first-order Weather Bureau stations.

Chart IV. Total Snowfall (Inches), December 1962.

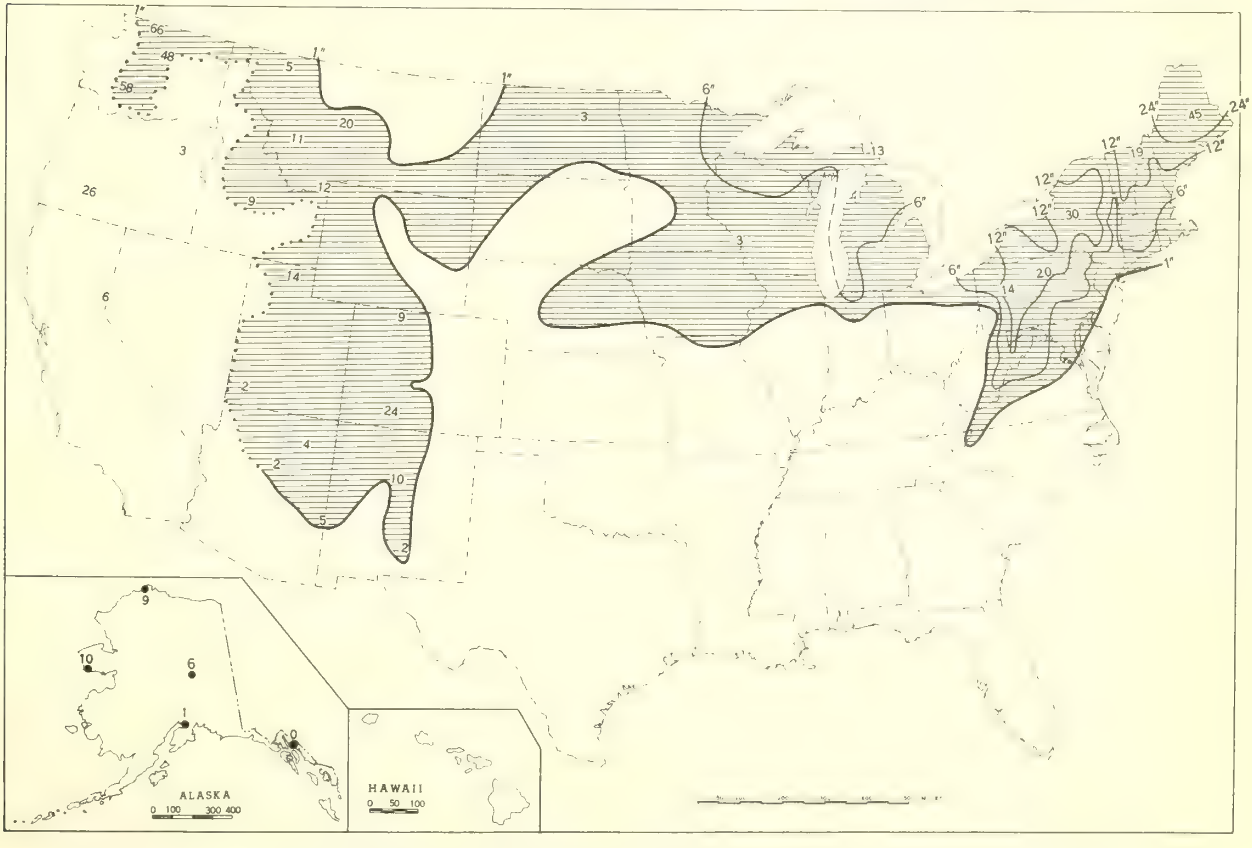


This is the total of unmelted snowfall recorded during the month at Weather Bureau and cooperative stations. This chart and Chart V are published only for the months of November through April although of course there is some snow at higher elevations, particularly in the far West, earlier and later in the year.

Chart V. A. Percentage of Mean Monthly Snowfall, December 1962.

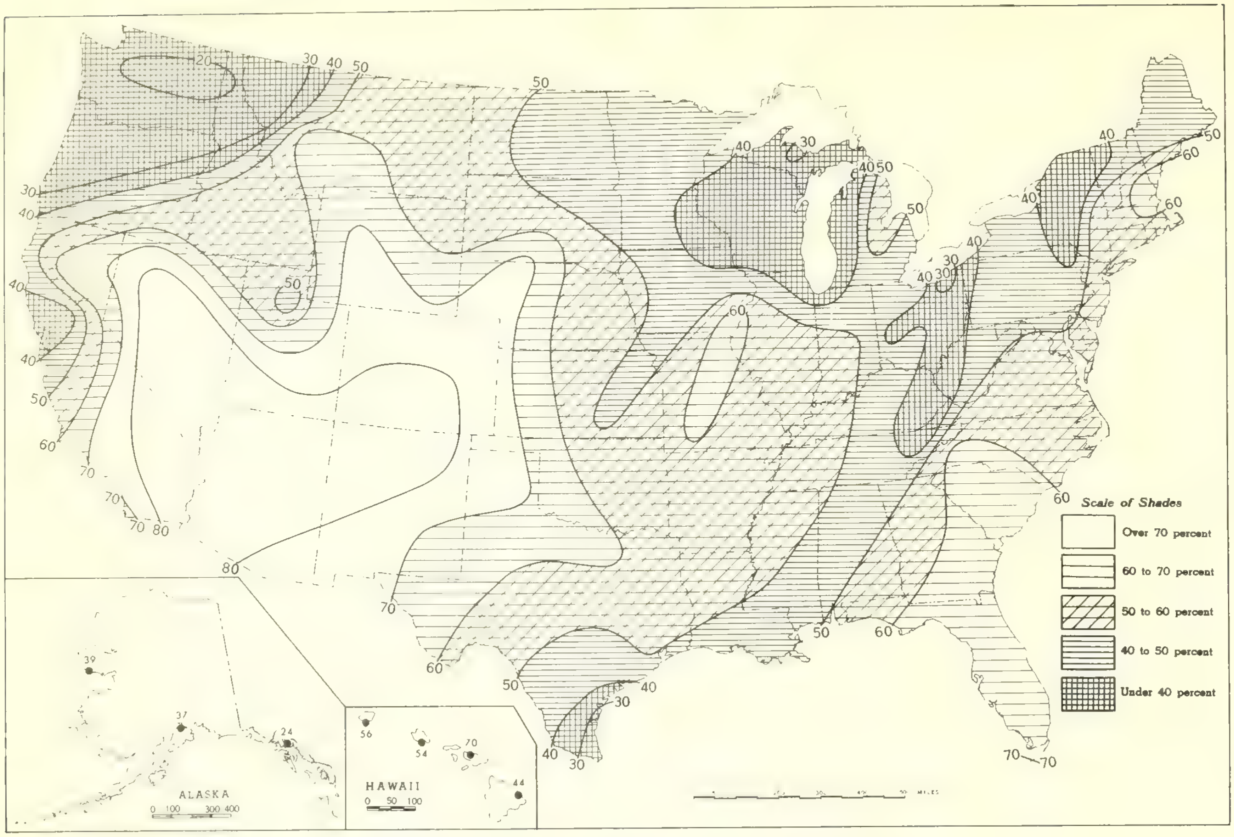


B. Depth of Snow on Ground (Inches), 7:00 a. m. E. S. T., December 31, 1962.

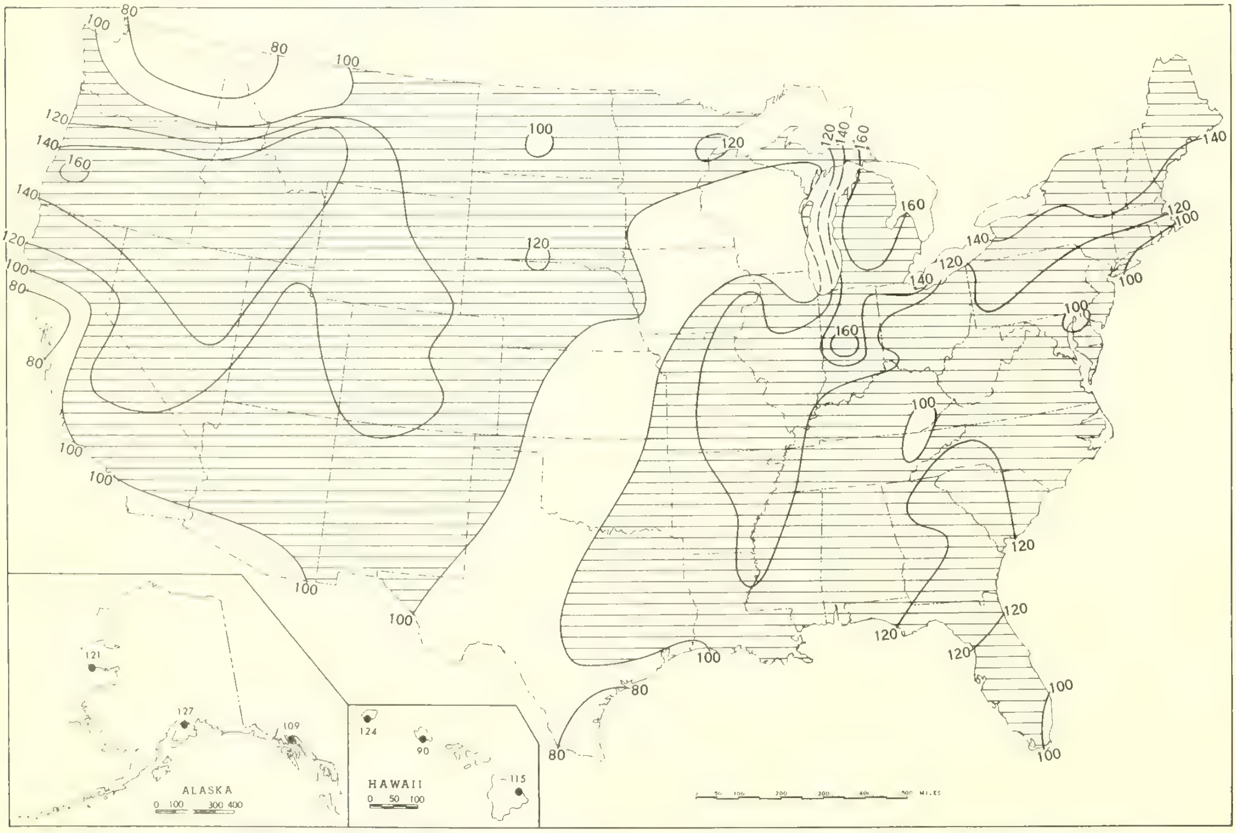


A. Amount of mean monthly snowfall is computed for Weather Bureau stations having at least 10 years of record.
B. Shows depth currently on ground at 7:00 a.m. E.S.T., of the Monday nearest the end of the month.
It is based on reports from Weather Bureau and cooperative stations.

Chart VI. A. Percentage of Possible Sunshine, December 1962.

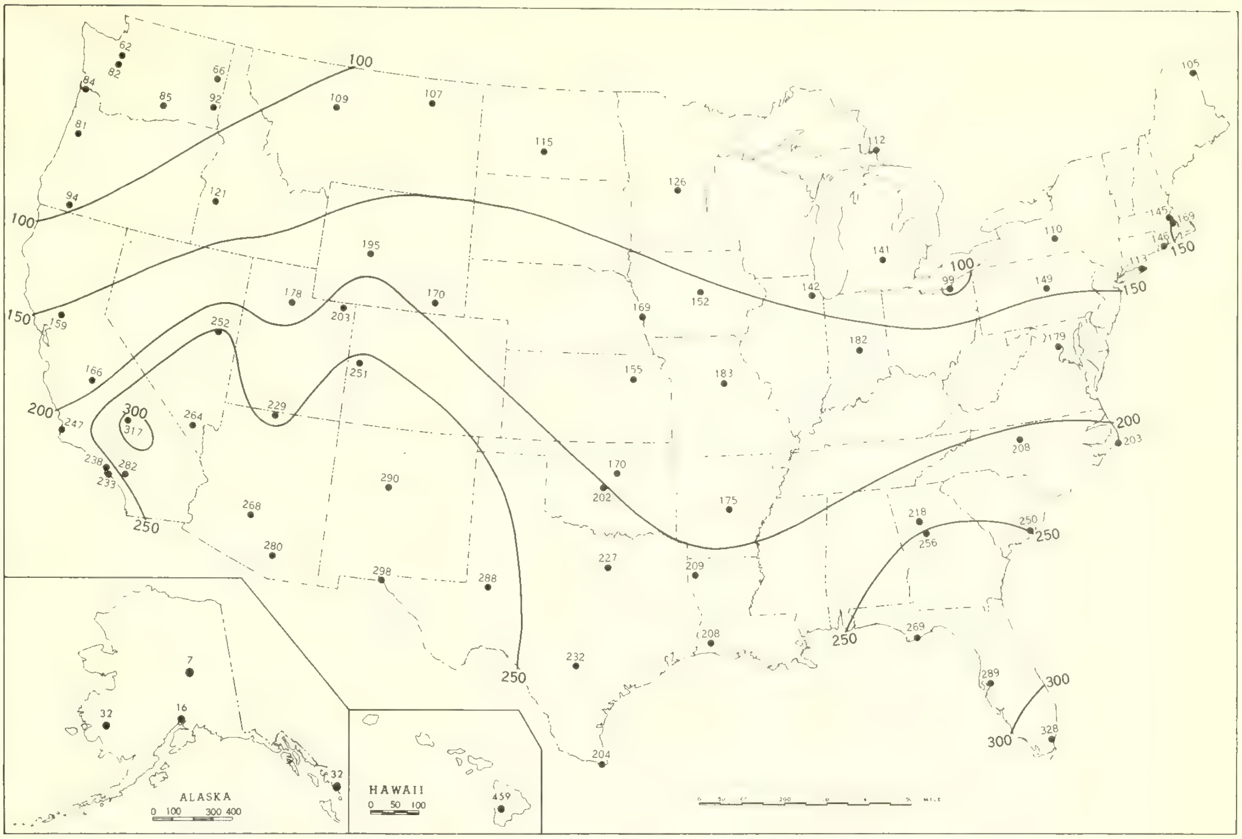


B. Percentage of Mean Monthly Sunshine, December 1962.

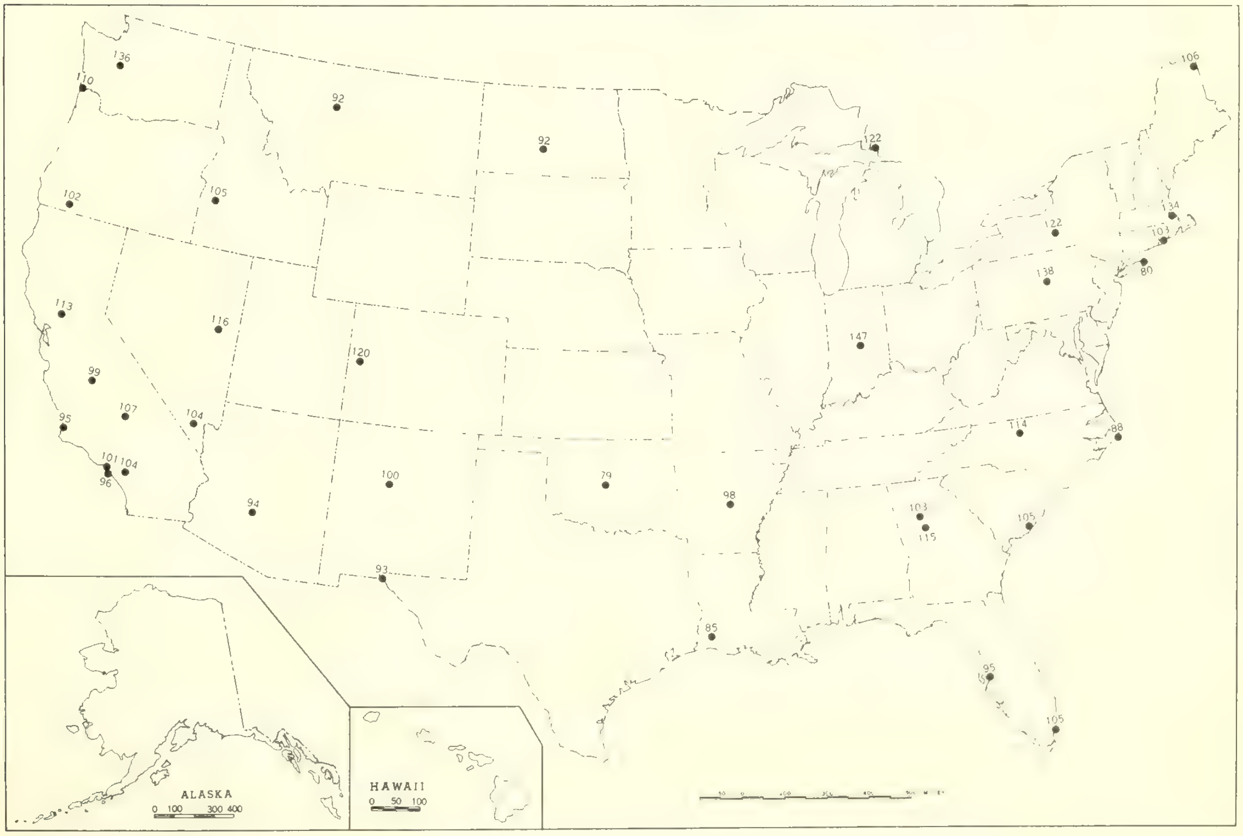


A. Computed from total number of hours of observed sunshine in relation to total number of possible hours of sunshine during month. B. Means are computed for stations having at least 10 years of record.

Chart VII. A. Average Daily Values of Solar Radiation, Langleys, December 1962.



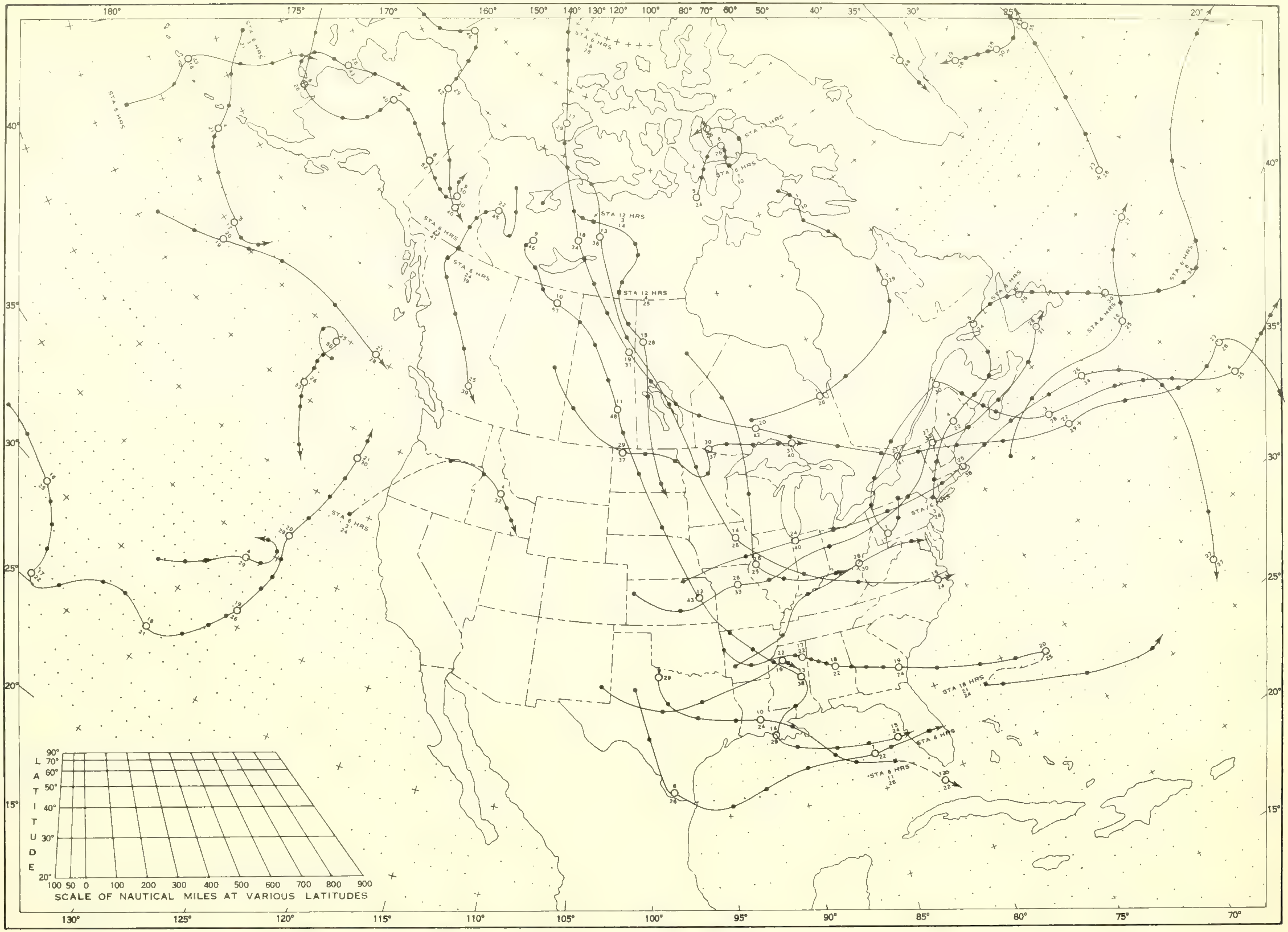
B. Percentage of Mean Daily Solar Radiation, December 1962.



A. Mean daily solar radiation, direct + diffuse, received on a horizontal surface in langleys (1 langley = 1 gm. cal. cm. $^{-2}$) and recorded in International Pyrheliometer Scale of 1956.

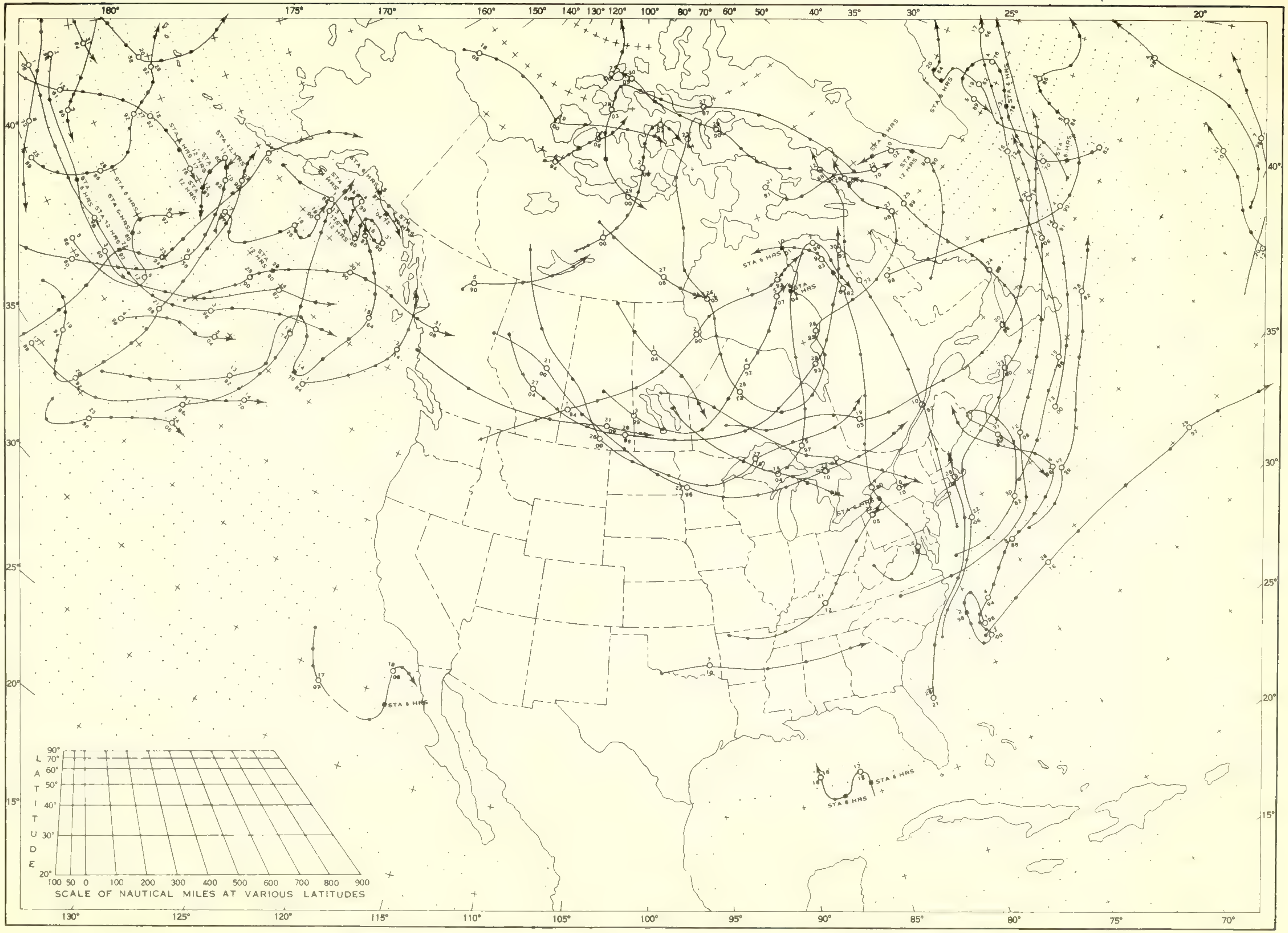
B. Percentage of the mean based on the period 1953-57, and corrected to the International Pyrheliometer Scale of 1956.

Chart VIII. Tracks of Centers of Anticyclones at Sea Level, December 1962.



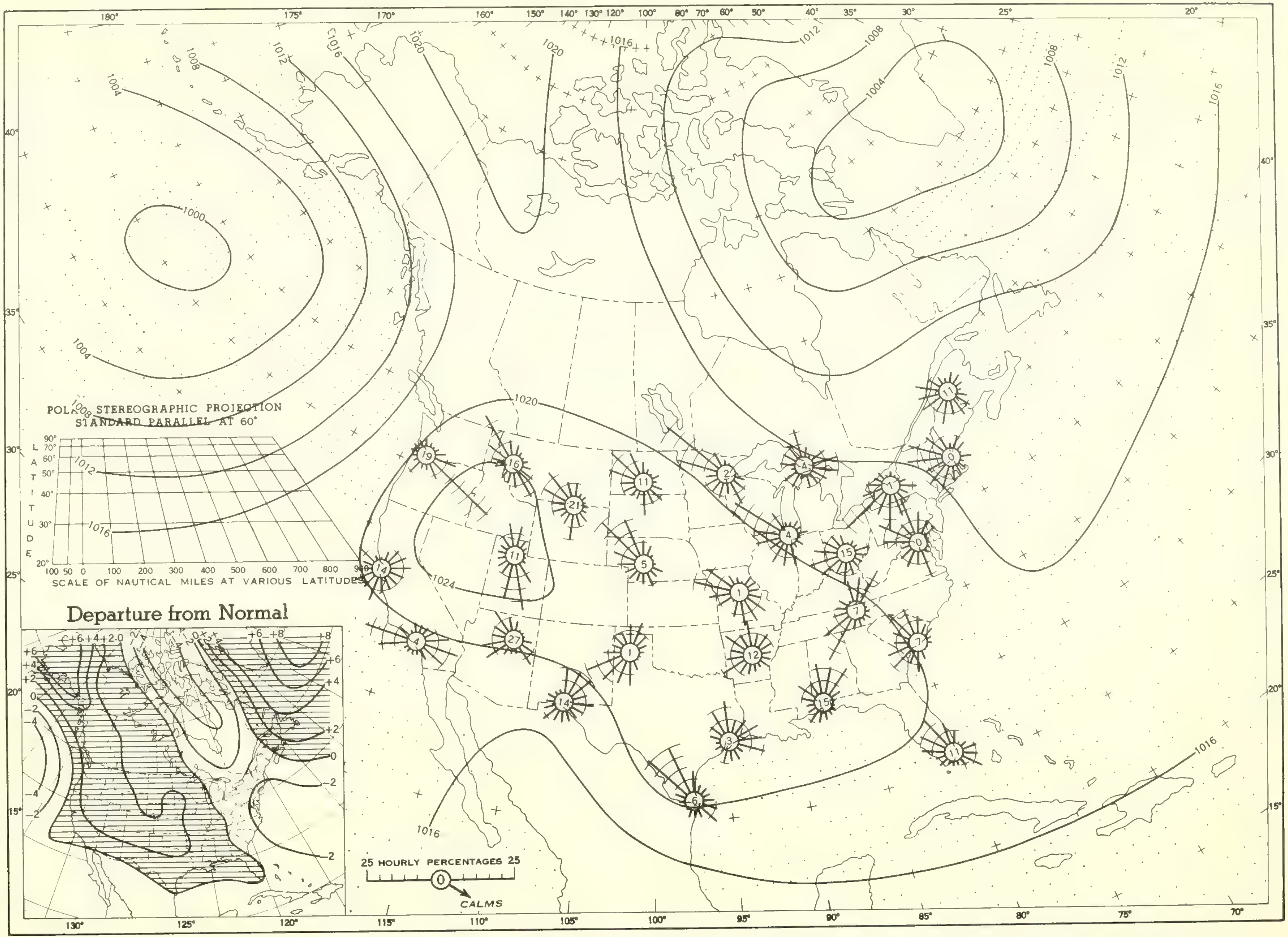
Circle indicates position of center at 7:00 a. m. E. S. T. Figure above circle indicates date, figure below, pressure to nearest millibar. Dots indicate intervening 6-hourly positions. Squares indicate position of stationary center for period shown. Dashed line in track indicates reformation at new position. Only those centers which could be identified for 24 hours or more are included.

Chart IX. Tracks of Centers of Cyclones at Sea Level, December 1962.



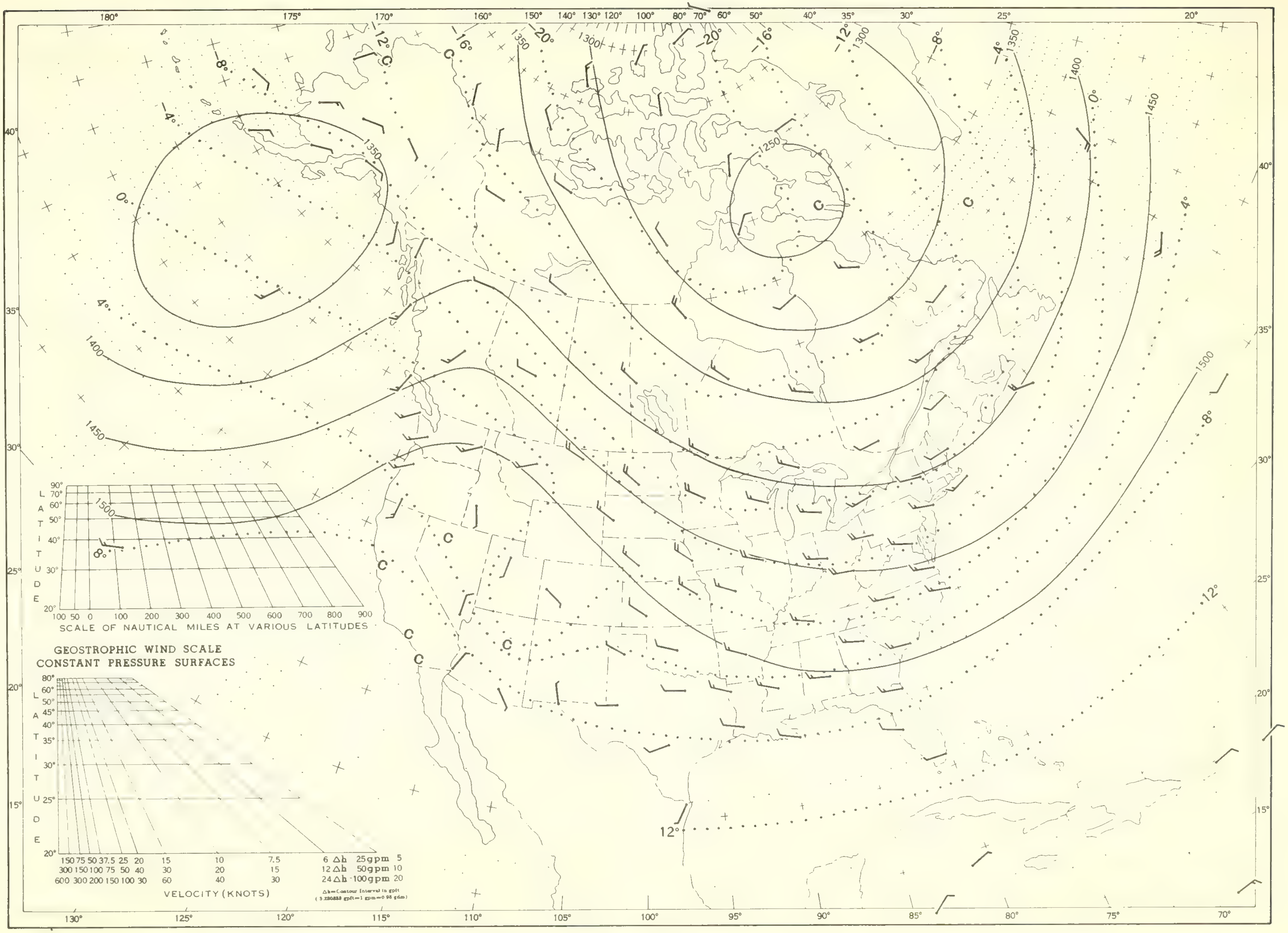
Circle indicates position of center at 7:00 a. m. E. S. T. See Chart VIII for explanation of symbols.

Chart X. Average Sea Level Pressure (mb.) and Surface Windroses, December 1962. Inset: Departure of Average Pressure (mb.) from Normal, December 1962.



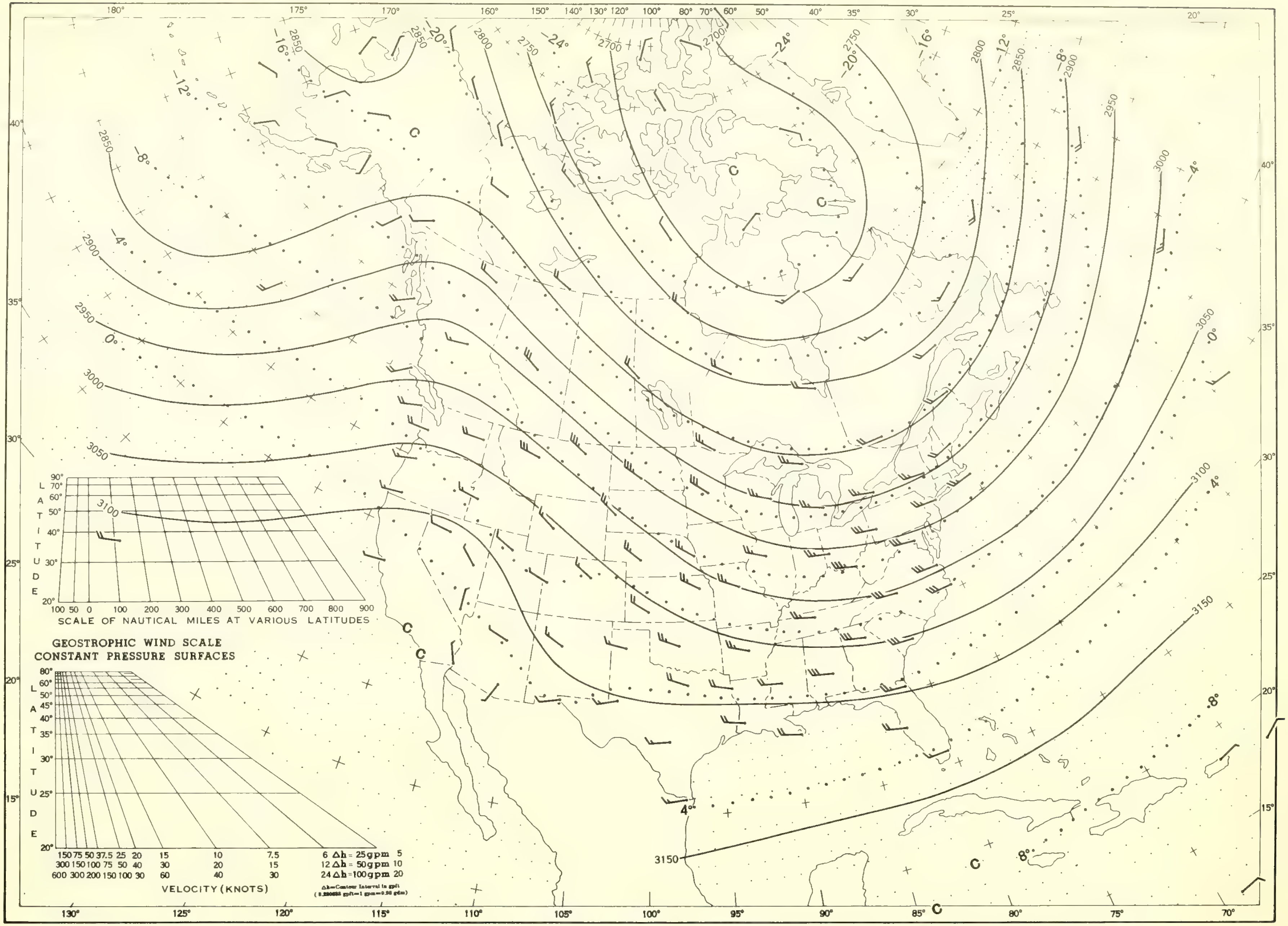
Average sea level pressures are obtained from the averages of the 7:00 a. m. and 7:00 p. m. E. S. T. readings. Windroses show percentage of time wind blew from 16 compass points or was calm during the month. Pressure normals are computed for stations having at least 10 years of record and for 10° intersections in a diamond grid based on readings from the Historical Weather Maps (1899-1939) for the 20 years of most complete data coverage prior to 1940.

Chart XI. 850-mb. Surface, 1200 GMT, December 1962. Average Height and Temperature, and Resultant Winds.



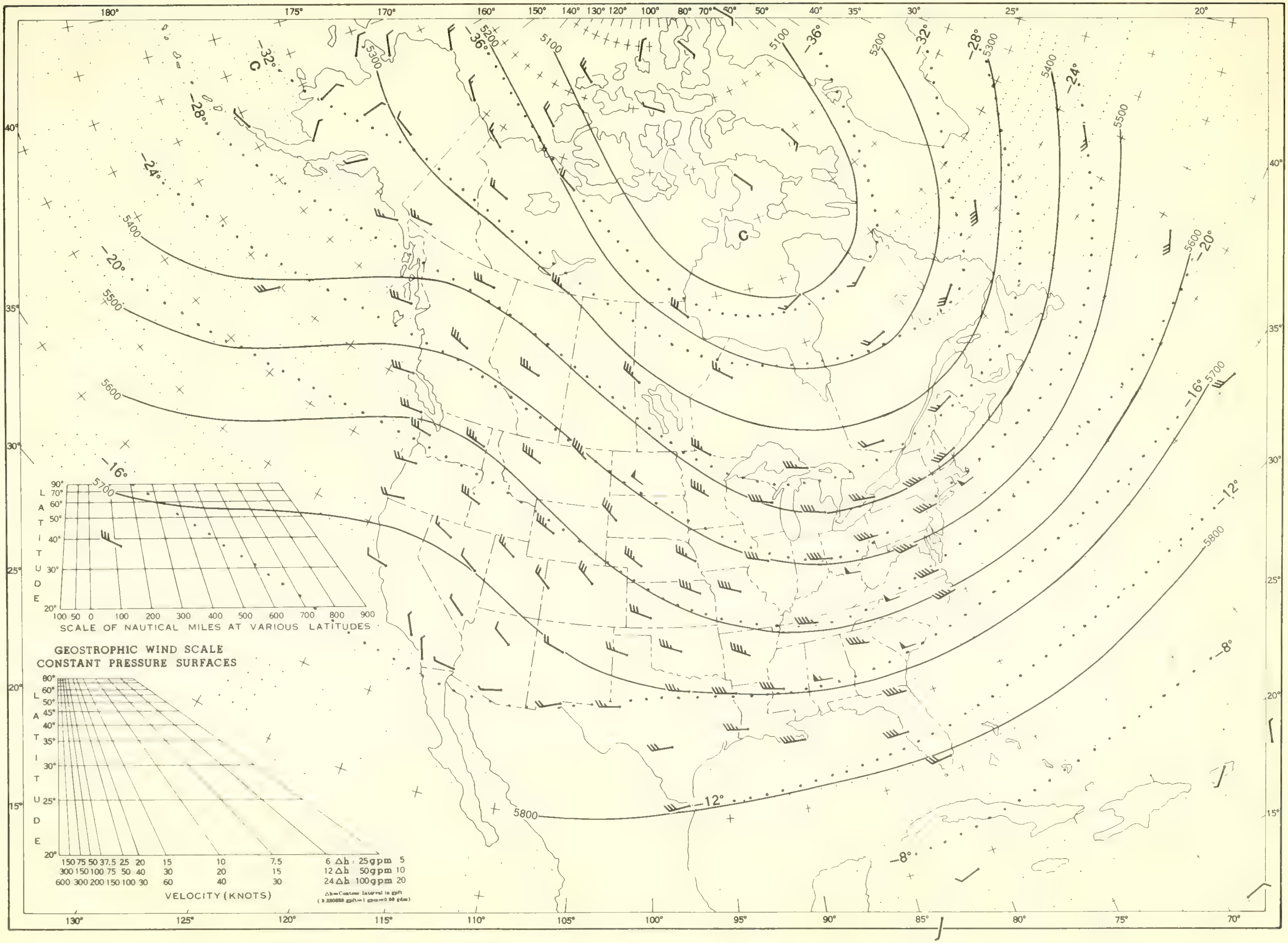
Height in geopotential meters (1 g.p.m. = 0.98 dynamic meters). Temperature in °C. Wind speed in knots; flag represents 50 knots, full feather 10 knots, and half feather 5 knots. All wind data are based on rawin observations.

Chart XII. 700-mb. Surface, 1200 GMT, December 1962. Average Height and Temperature, and Resultant Winds.



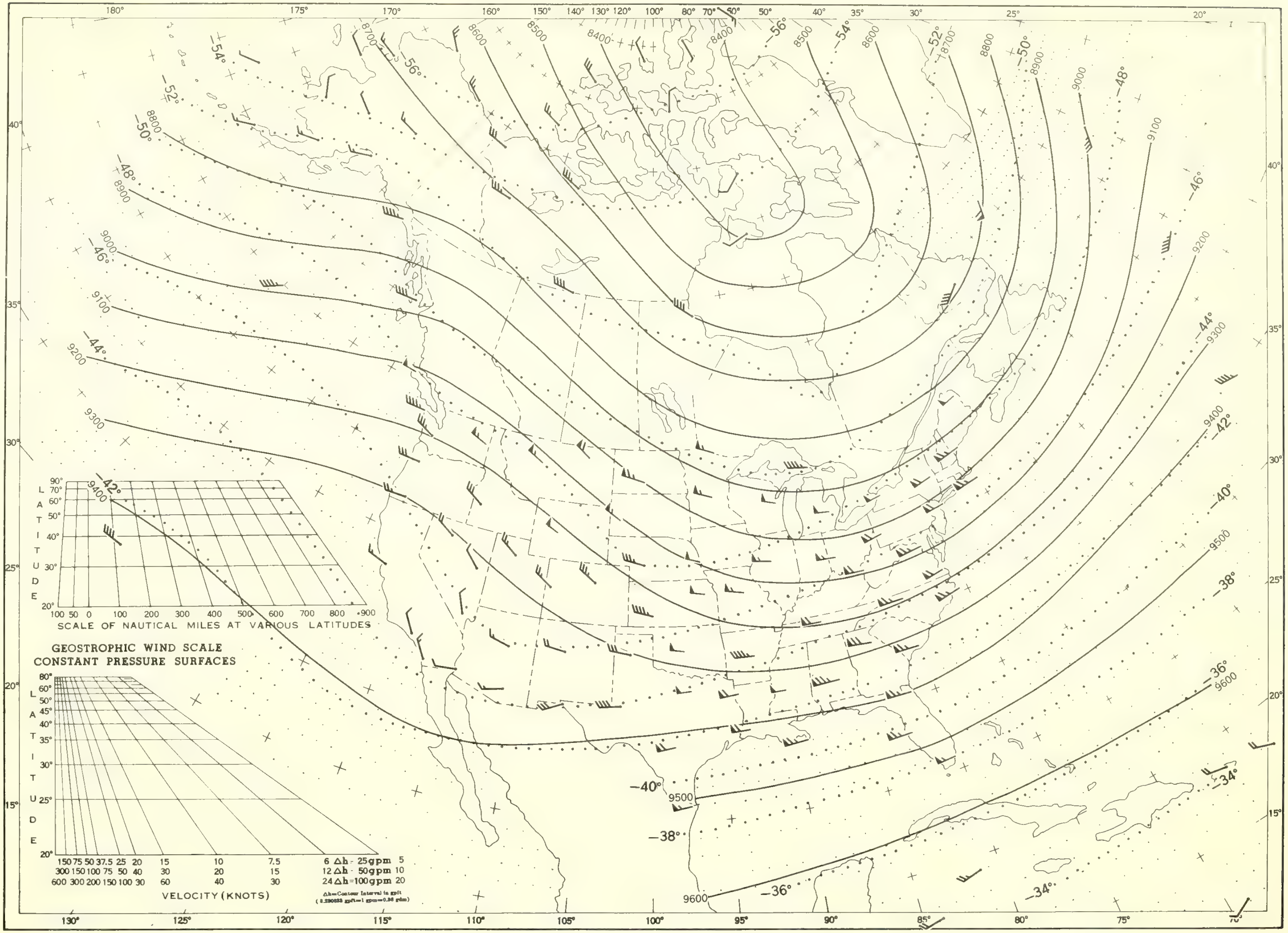
See Chart XI for explanation of map.

Chart XIII. 500-mb. Surface, 1200 GMT, December 1962. Average Height and Temperature, and Resultant Winds.



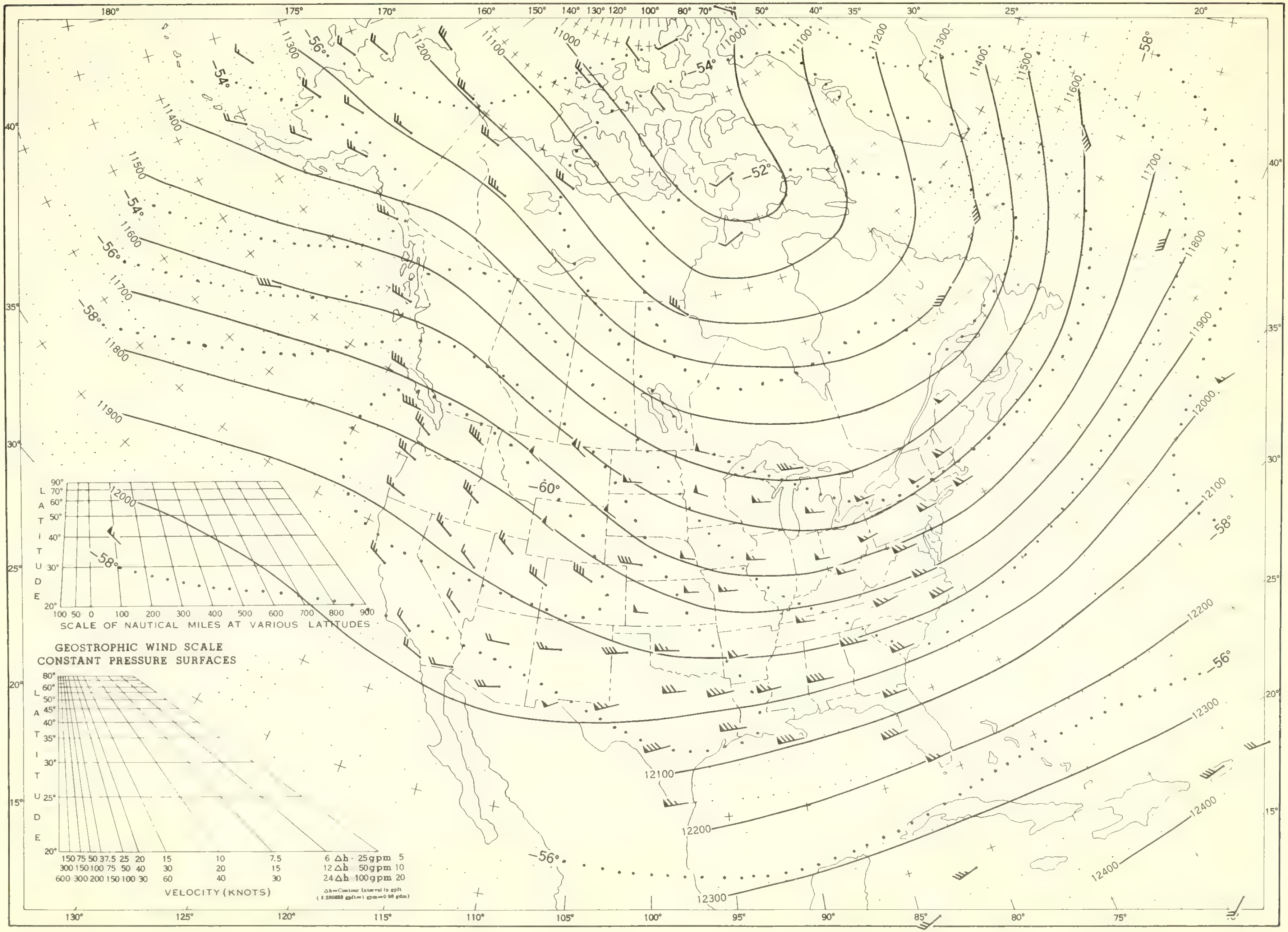
See Chart XI for explanation of map.

Chart XIV. 300-mb. Surface, 1200 GMT, December 1962. Average Height and Temperature, and Resultant Winds.



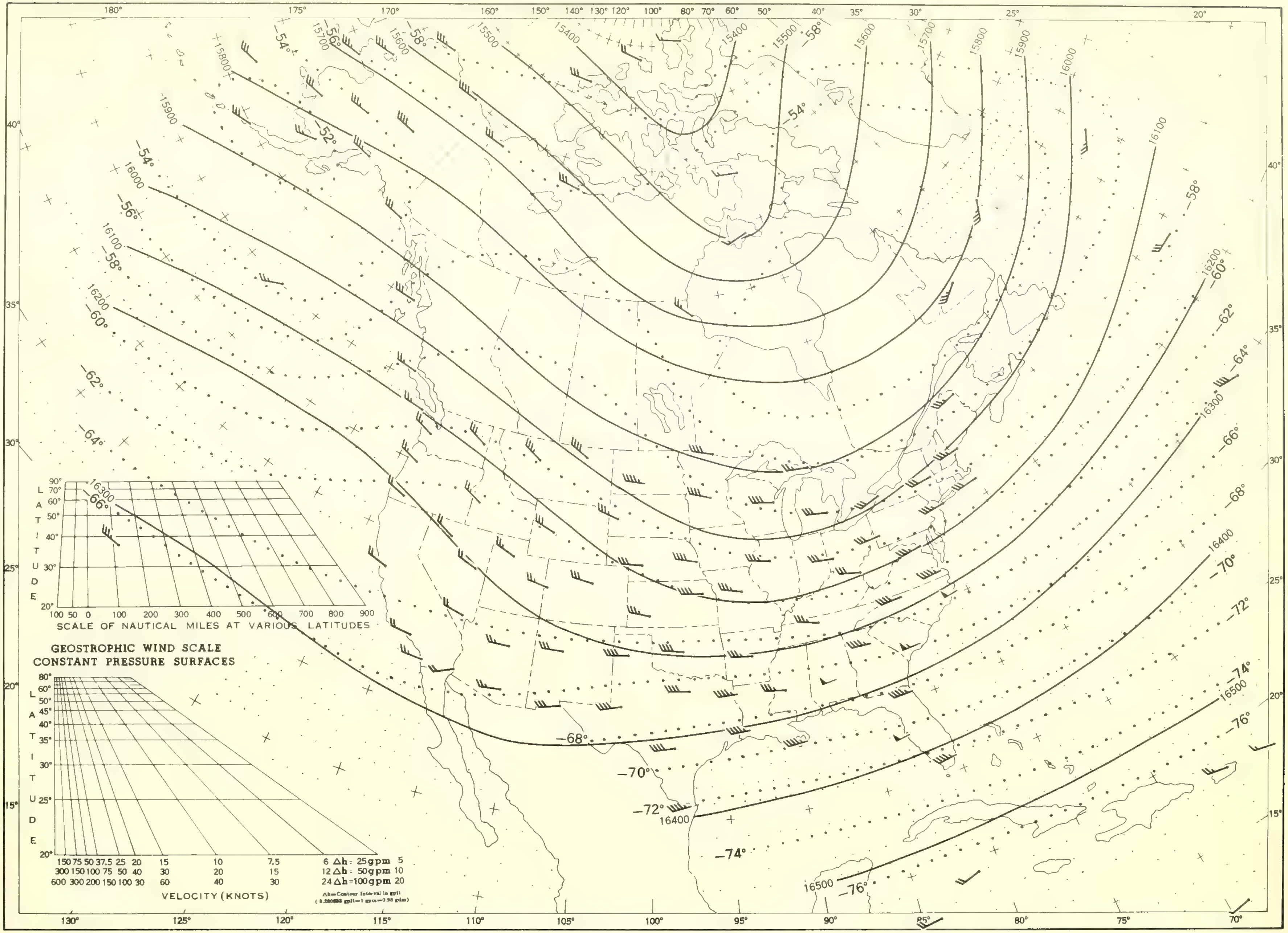
See Chart XI for explanation of map.

Chart XV. 200-mb. Surface, 1200 GMT, December 1962. Average Height and Temperature, and Resultant Winds.



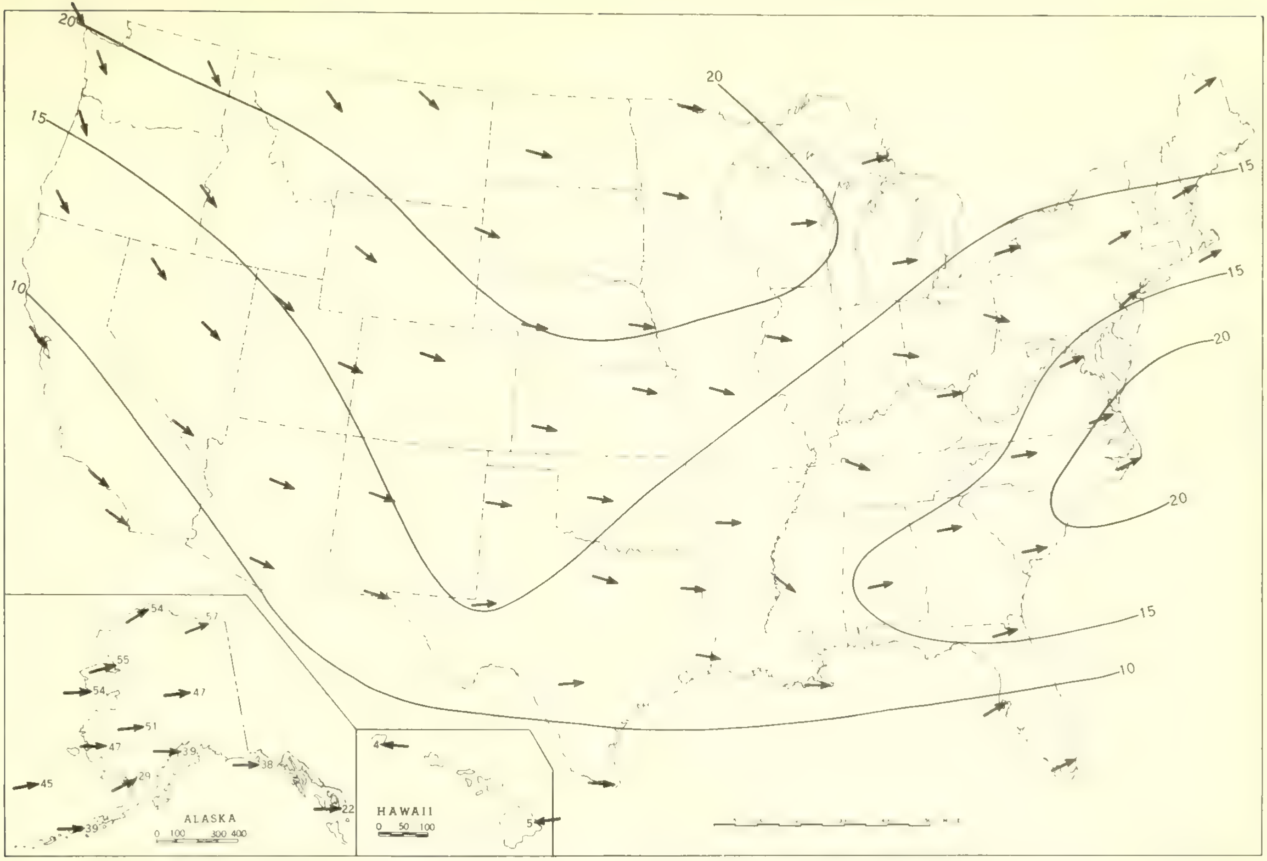
See Chart XI for explanation of map.

Chart XVI. 100-mb. Surface, 1200 GMT, December 1962. Average Height and Temperature, and Resultant Winds.

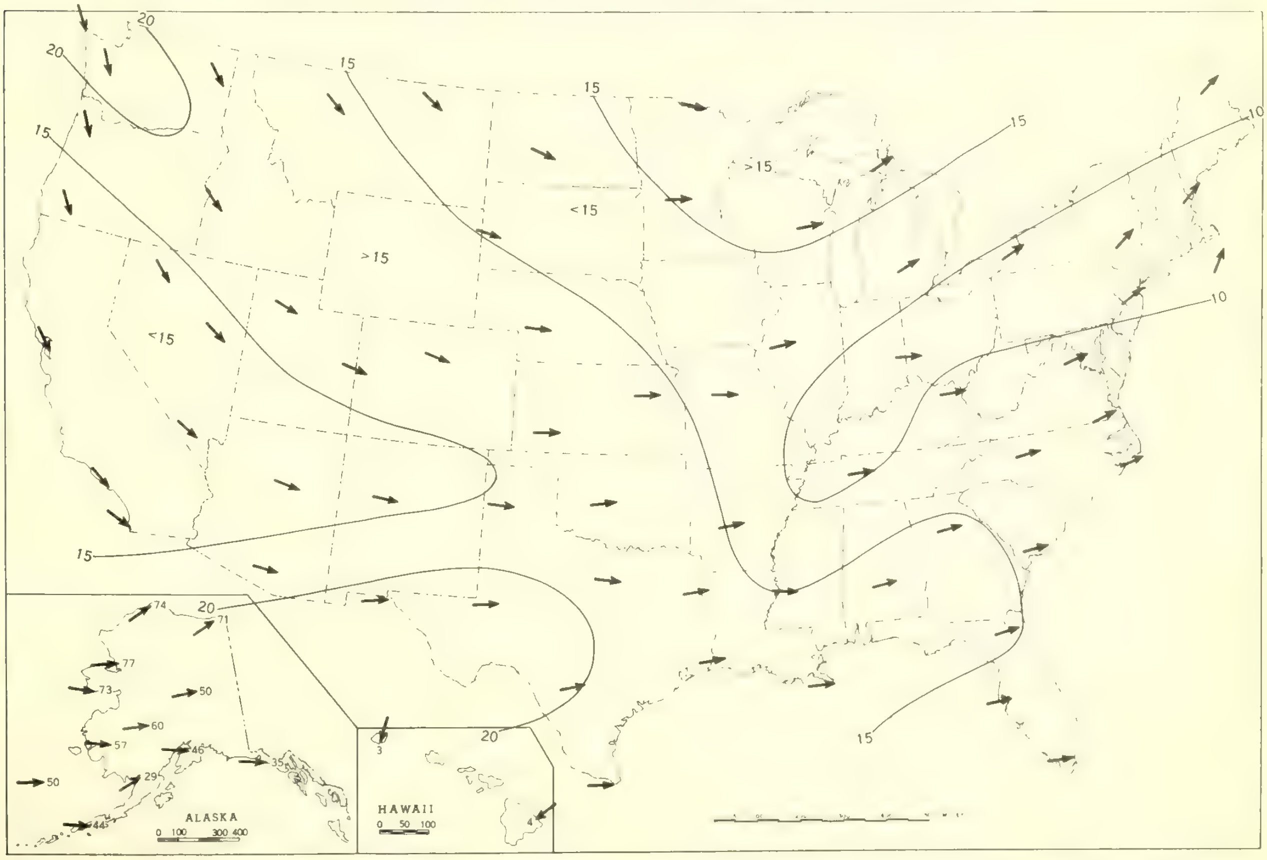


See Chart XI for explanation of map.

Chart XVII. A. 50-mb. Surface, 1200 GMT, December 1962. Resultant Winds.



B. 30-mb. Surface, 1200 GMT, December 1962. Resultant Winds.



Wind speed (isotachs) in knots. Arrows show resultant wind direction. All wind data are based on rawin observations.

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CLIMATOLOGICAL DATA

NATIONAL SUMMARY

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RAWINSONDE DATA (Average Annual Values) - tabulation discontinued. The tabulation RAWINSONDE DATA (Average Monthly Values) is carried in the monthly issue of the publication CLIMATOLOGICAL DATA NATIONAL SUMMARY.

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CLIMATOLOGICAL DATA

NATIONAL SUMMARY

Volume 13 No. 13 ANNUAL 1962

GENERAL SUMMARY OF WEATHER CONDITIONS

L. H. Seamon, Climatology
Weather Bureau, Washington, D. C.

The weather of 1962 was characterized by great temperature fluctuations, with record-breaking cold waves during the first 4 months and again in December, midsummer heat during May east of the Rockies, and a cool summer in the northern two-thirds of the Nation. Weather conditions generally were favorable for agriculture, with total crop production for the year among the highest on record. Severe local storms which always take a considerable toll of life and property during the warm season of the year were less frequent than in many other years. No hurricanes entered the mainland. Flood losses were relatively low. (Special articles on tornadoes, tropical storms, and floods appear in this publication.)

A great cold wave that ranks among the most severe on record highlighted the weather of the year's first month. As it crossed the northern Rockies on the 9th, a sea-level pressure reading of 31.40 inches at Helena, Mont., was the highest ever recorded in the United States including Alaska and Hawaii.

In Texas the cold wave from January 9 to 12 was comparable to the disastrous cold waves of February 1951 and February 1899. The Lavaca River at Hallettsville froze from bank to bank (the river is 35 feet wide there) for the first time in 60 years. Galveston Bay at Texas City froze over from the shore to 100 yards out, the first such occurrence in 62 years according to longtime residents. In San Antonio and vicinity, lakes and streams froze over for the first time since 1918.

Many other sections of the South had their lowest temperatures since 1899. New Orleans, La., and Mobile, Ala., had their longest periods of subfreezing on record, 67 and 86 consecutive hours, respectively. At the latter station where a low of 13° occurred, bays north of the Causeway froze over with 2 to 3 inches of ice except for channels.

Snow fell at locations along the Gulf and California coasts where snow is rather rare. Snowfall was unusually heavy during January in the middle Mississippi Valley, but light in the Far West and unusually light in the Northeast where Boston's 2.5 inches was a January low for a 90-year record.

This January cold wave was a record-breaker in some northern sections, too. Denver, Colo., had 14 days with a minimum of zero or below, the most for January since 1875, and Huron, S. D., had continuous subzero temperatures from the 17th through the 21st, the longest such period there since 1936. Extreme lows of -55° were recorded in Montana, Wyoming, and Colorado, establishing a new January record in the latter State. A low of -47° in New Mexico was also the lowest temperature ever recorded in that State during January.

In the South this great freeze from January 9 to 12 was blamed for many millions of dollars damage, and ranks among the most damaging freezes of this century. New Orleans, La., alone estimated its losses at $15 million and estimates for Baton Rouge, La., and Meridian, Miss., were placed at $5 million and $1 million respectively. Citrus incurred heavy damage in southern Texas and some crop damage occurred in Florida.

During another severe cold wave at the end of January and the beginning of February, temperatures dropped to new record lows for February in Vermont (-48°) and Maine (-44°) on the 2d. This cold wave was followed by a winter warmup that sent temperatures to new record high levels for February in Wyoming, 78°; Missouri, 90°; Illinois, 83°; Tennessee, 85°; North Carolina, 88°; South Carolina, 89°; and Florida, 94°.

A cold wave at the beginning of March reduced temperatures to the lowest levels on record for that month in Wisconsin (-48°), Iowa (-35°), and Illinois (-21°). Snowfall, extremely heavy in the Middle Atlantic States, North Central Interior, and the Far West during February and March, was of great importance in the latter area in building up the mountain snowpack. Record amounts of more than 20 inches fell in Iowa where depths sometimes exceeded 3 feet locally.

A storm off the north Atlantic coast on March 6 and 7 was named "The Great Atlantic Coastal Storm", owing to its unusual violence. Winds up to 85 m.p.h., were responsible for swells up to 30 feet high which battered coastal installations from Maine to Florida. The death toll was 33, injuries numbered 1,252, and dwellings either damaged or destroyed were counted in the thousands. Losses totaled many millions of dollars.

A cold wave early in April reduced temperatures to record low levels for so late in the season in some northern areas, with freezing in New Mexico and frost in northern Florida. During a heat wave that spread westward across the Nation, the latter half of the month, temperatures soared to record high levels for so early in the season at many stations.

Midsummer heat prevailed during much of May in the southern two-thirds of the area east of the Rockies, but the month was cold and wet west of the Great Lakes, and in the Far West, and very dry in parts of the Northeast. This was the warmest May during a record dating back 87 years at Dodge City, Kans.; 89 years at Chicago, Ill.; 84 years at Thomasville, Ga.; and 91 years at Mobile, Ala. Highest temperatures so early in the season for cities with long-term records included 100° at Wichita, Kans., on the 25th; 99° at Jacksonville, Fla., on the 20th; and 94° at Alpena, Mich., on the 16th.

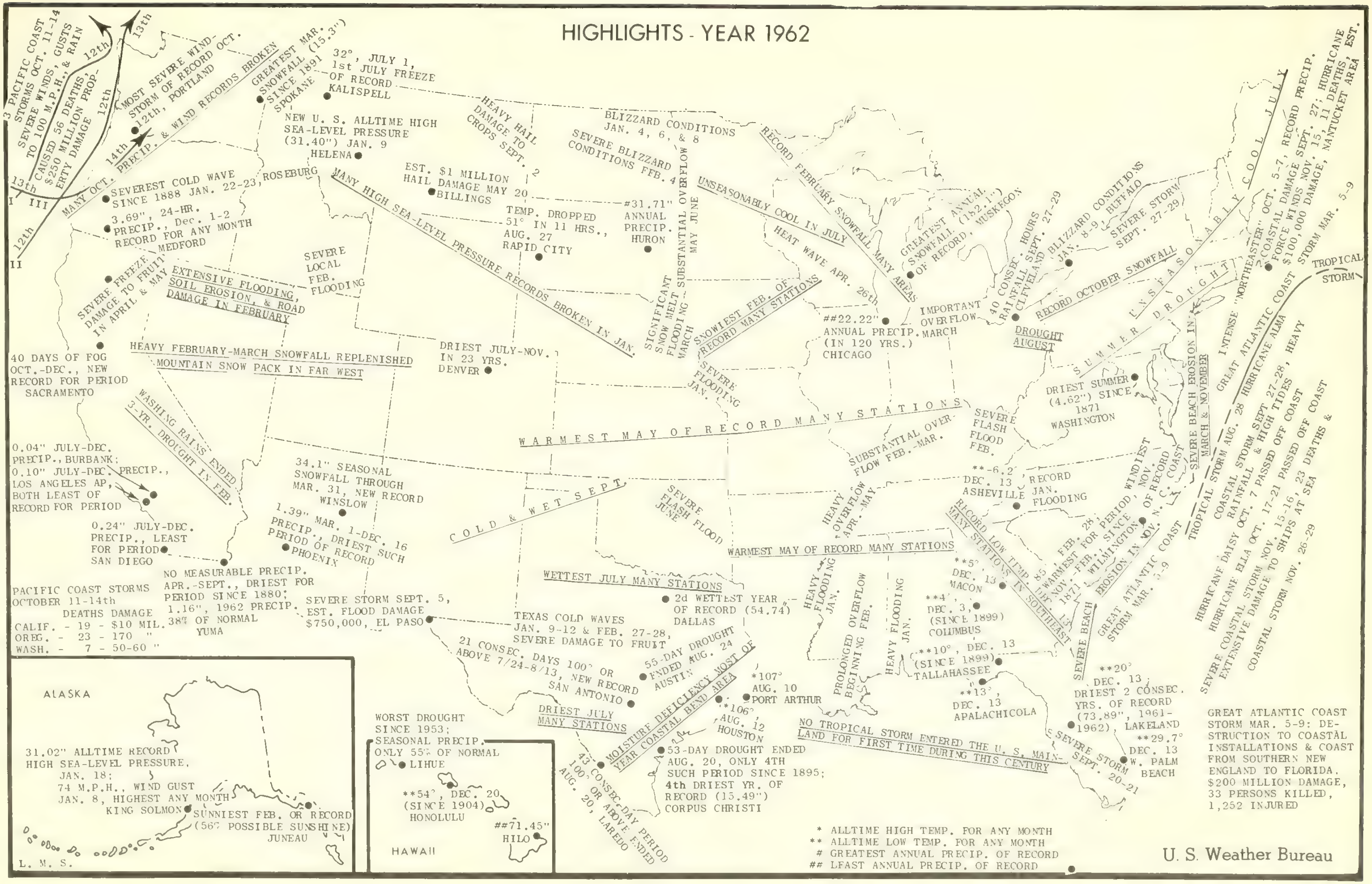
The summer of 1962 was pleasantly cool in the northern two-thirds of the Nation, but was hot and humid in the Gulf States. At Boston, Mass., the temperature failed to rise to 90° during the summer for the first time in 58 years. Precipitation was heavier than usual in most of the Great Plains and Rocky Mountain region, and below normal from the Mississippi Valley to the Appalachians, in southern Texas, and west of the Rockies. Drought began to develop in parts of eastern Pennsylvania, northern New Jersey, southeastern New York, and southern New England in June and became rather severe before being ended by August rains, the first of which fell from about the 6th to 11th. Washington, D. C., had its driest August (0.55 inch) and driest summer (4.62 inches) since records began in 1871.

Wind- and hailstorms were numerous in north-central areas during June. A tornado in the Texas Panhandle on June 1, caused over $6 million damage. Hail and wind caused $2 million damage in Omaha, Nebr., on July 21, and $2-1/2 million at Dubuque, Iowa, on July 22. In August thunderstorms with hail and wind caused several million dollars damage in southeastern Michigan and northwestern Ohio on the 8th. On August 20 a tornado killed 4 persons, injured several others, and caused $1 million property damage in the western portion of Cleveland, Ohio, and a tornado at Cameron, La., on the 28th killed 6 persons.

Autumn temperatures and precipitation were for the most part uneventful, except for unusually early snowfall in northern areas during September. Storms on the north Pacific coast on October 11, 12, and 13 were blamed for more than 50 deaths and property losses estimated in the neighborhood of $250 million. On October 4 to 7 rains from storms off the New England coast caused flooding which resulted in several million dollars damage, and high winds along the Maine coast caused additional damage estimated at several million dollars.

December temperatures were rather mild in the western half of the Nation, and unusually low in the eastern half where the month's weather was highlighted by a notable cold wave. On the 13th numerous stations recorded their lowest temperatures on record for December. Freeze damage was widespread in the South, and crop losses in Florida were estimated in the millions of dollars. Precipitation was below normal in most of the Nation. Snowfall was very light in the Far West and the mountain snowpack was much below normal. Snowfall was heavier than usual in the Northeast, however, and the year ended with one of the worst blizzards ever known in northern New England.

HIGHLIGHTS - YEAR 1962


3 PACIFIC COAST STORMS OCT. 11-14 SEVERE WINDS, GUSTS TO 100 M.P.H., & RAIN CAUSED 56 DEATHS, $250 MILLION PROPERTY DAMAGE
12th
13th
14th
I
II
III
MOST SEVERE WIND-STORM OF RECORD OCT. 12th, PORTLAND
PRECIP. & WIND RECORDS BROKEN MANY OCT.
GREATEST MAR. SNOWFALL (15.3") SINCE 1891 SPOKANE
32°, JULY 1, 1st JULY FREEZE OF RECORD KALISPELL
NEW U. S. ALLTIME HIGH SEA-LEVEL PRESSURE (31.40") JAN. 9 HELENA
SEVEREST COLD WAVE SINCE 1888 JAN. 22-23, ROSEBURG
3.69", 24-HR. PRECIP., Dec. 1-2 RECORD FOR ANY MONTH MEDFORD
SEVERE FREEZE DAMAGE TO FRUIT IN APRIL & MAY
EXTENSIVE FLOODING, SOIL EROSION, & ROAD DAMAGE IN FEBRUARY
SEVERE LOCAL FEB. FLOODING
40 DAYS OF FOG OCT.-DEC., NEW RECORD FOR PERIOD SACRAMENTO
HEAVY FEBRUARY-MARCH SNOWFALL REPLENISHED MOUNTAIN SNOW PACK IN FAR WEST
WASHING RAINS ENDED 3-YR. DROUGHT IN FEB.
0.04" JULY-DEC. PRECIP., BURBANK; 0.10" JULY-DEC. PRECIP., LOS ANGELES AP, BOTH LEAST OF RECORD FOR PERIOD
0.24" JULY-DEC. PRECIP., LEAST FOR PERIOD SAN DIEGO
NO MEASURABLE PRECIP. APR.-SEPT., DRIEST FOR PERIOD SINCE 1880; 1.16", 1962 PRECIP. 38% OF NORMAL YUMA
PACIFIC COAST STORMS OCTOBER 11-14th
DEATHS DAMAGE
CALIF. - 19 - $10 MIL.
OREG. - 23 - 170 "
WASH. - 7 - 50-60 "
HEAVY HAIL DAMAGE TO CROPS SEPT. 2
EST. $1 MILLION HAIL DAMAGE MAY 20 BILLINGS
MANY HIGH SEA-LEVEL PRESSURE RECORDS BROKEN IN JAN.
TEMP. DROPPED 51° IN 11 HRS., AUG. 27 RAPID CITY
DRIEST JULY-NOV. IN 23 YRS. DENVER
34.1" SEASONAL SNOWFALL THROUGH MAR. 31, NEW RECORD WINSLOW
1.39" MAR. 1-DEC. 16 PRECIP., DRIEST SUCH PERIOD OF RECORD PHOENIX
SEVERE STORM SEPT. 5, EST. FLOOD DAMAGE $750,000, EL PASO
BLIZZARD CONDITIONS JAN. 4, 6, & 8
SEVERE BLIZZARD CONDITIONS FEB. 4
#31.71" ANNUAL PRECIP. HURON
SIGNIFICANT SNOW MELT FLOODING MARCH
SUBSTANTIAL OVERFLOW MAY JUNE
UNSEASONABLY COOL IN JULY
HEAT WAVE APR. 26th
RECORD FEBRUARY SNOWFALL MANY AREAS
SNOWIEST FEB. OF RECORD MANY STATIONS
SEVERE FLOODING JAN.
WARMEST MAY OF RECORD MANY STATIONS
COLD & WET SEPT
SEVERE FLASH FLOOD JUNE
WETTEST JULY MANY STATIONS
2d WETTEST YEAR OF RECORD (54.74") DALLAS
TEXAS COLD WAVES JAN. 9-12 & FEB. 27-28, SEVERE DAMAGE TO FRUIT
21 CONSEC. DAYS 100° OR ABOVE 7/24-8/13, NEW RECORD SAN ANTONIO
55-DAY DROUGHT ENDED AUG. 24 AUSTIN
DRIEST JULY MANY STATIONS
MOISTURE DEFICIENCY MOST OF YEAR COASTAL BEND AREA
*107° AUG. 10 PORT ARTHUR
*106° AUG. 12 HOUSTON
53-DAY DROUGHT ENDED AUG. 20, ONLY 4TH SUCH PERIOD SINCE 1895; 4th DRIEST YR. OF RECORD (15.49") CORPUS CHRISTI
43 CONSEC. DAY PERIOD 100° OR ABOVE ENDED AUG. 20, LAREDO
##22.22" ANNUAL PRECIP. (IN 120 YRS.) CHICAGO
GREATEST ANNUAL SNOWFALL (182.1") OF RECORD, MUSKEGON
IMPORTANT OVERFLOW MARCH
40 CONSEC. HOURS RAINFALL SEPT. 27-29 CLEVELAND
DROUGHT AUGUST
BLIZZARD CONDITIONS JAN. 8-9, BUFFALO
SEVERE STORM SEPT. 27-29
RECORD OCTOBER SNOWFALL
SUMMER DROUGHT
UNSEASONABLY COOL JULY
DRIEST SUMMER (4.62") SINCE 1871 WASHINGTON
SUBSTANTIAL OVERFLOW FEB.-MAR.
SEVERE FLASH FLOOD FEB.
**-6.2° DEC. 13 ASHEVILLE
RECORD JAN. FLOODING
HEAVY OVERFLOW APR.-MAY
WARMEST MAY OF RECORD MANY STATIONS
HEAVY FLOODING JAN.
PROLONGED OVERFLOW BEGINNING FEB.
HEAVY FLOODING JAN.
RECORD LOW TEMP. DEC. 13 MANY STATIONS IN SOUTHEAST
**5° DEC. 13 MACON
**4° DEC. 3, (SINCE 1899) COLUMBUS
**10°, DEC. 13 (SINCE 1899) TALLAHASSEE
**13° DEC. 13 APALACHICOLA
85° FEB. 28; WARMEST FOR PERIOD, NOV.-FEB., SINCE 1871, WILMINGTON
WINDIEST NOV. OF RECORD
EROSION IN NOV. N. C. COAST
SEVERE BEACH EROSION IN MARCH & NOVEMBER
SEVERE BEACH
GREAT ATLANTIC COAST STORM MAR. 5-9
**20° DEC. 13; DRIEST 2 CONSEC. YRS. OF RECORD (73.89", 1961-1962), LAKELAND
**29.7° DEC. 13 W. PALM BEACH
SEVERE STORM SEPT. 20-21
NO TROPICAL STORM ENTERED THE U. S. MAINLAND FOR FIRST TIME DURING THIS CENTURY
INTENSE "NORTHEASTER" OCT. 5-7, RECORD PRECIP. COASTAL DAMAGE SEPT. 27; HURRICANE FORCE WINDS NOV. 15, 11 DEATHS, EST. $100,000 DAMAGE, NANTUCKET AREA
GREAT ATLANTIC COAST STORM MAR. 5-9
TROPICAL STORM
TROPICAL STORM AUG. 28 HURRICANE ALMA
COASTAL STORM SEPT 27-28, HEAVY RAINFALL & HIGH TIDES
HURRICANE DAISY OCT. 7 PASSED OFF COAST
HURRICANE ELLA OCT. 17-21 PASSED OFF COAST
SEVERE COASTAL STORM NOV. 15-16, 23 DEATHS & EXTENSIVE DAMAGE TO SHIPS AT SEA
COASTAL STORM NOV. 26-29
GREAT ATLANTIC COAST STORM MAR. 5-9: DESTRUCTION TO COASTAL INSTALLATIONS & COAST FROM SOUTHERN NEW ENGLAND TO FLORIDA. $200 MILLION DAMAGE, 33 PERSONS KILLED, 1,252 INJURED
ALASKA
31.02" ALLTIME RECORD HIGH SEA-LEVEL PRESSURE, JAN. 18; 74 M.P.H., WIND GUST JAN. 8, HIGHEST ANY MONTH KING SOLMON
SUNNIEST FEB. OF RECORD (56% POSSIBLE SUNSHINE) JUNEAU
WORST DROUGHT SINCE 1953; SEASONAL PRECIP. ONLY 55% OF NORMAL LIHUE
**54°, DEC. 20 (SINCE 1904) HONOLULU
##71.45" HILO
HAWAII
L. M. S.
* ALLTIME HIGH TEMP. FOR ANY MONTH
** ALLTIME LOW TEMP. FOR ANY MONTH
# GREATEST ANNUAL PRECIP. OF RECORD
## LEAST ANNUAL PRECIP. OF RECORD
U. S. Weather Bureau

EXCESSIVE PRECIPITATION

(Excessive Short Duration Rainfall)

YEAR 1962

This table contains statistics of maximum amounts of rainfall during the calendar year 1962. Data presented in this table are generally from stations equipped with recording gages. Stations are at City Office locations unless otherwise shown.

Excessive precipitation data for the years 1896-1935 inclusive, generally present the accumulated amounts of precipitation for each 5, 10, or 20 minute intervals during storms in which the rate of fall equaled or exceeded .25 inch in any 5 minute period, or .30 in any 10 minute period, or .35 in any 15 minute period, etc., the tabulation beginning with the 5 minute period where the rate of .05 inch in 5 minutes began and continuing by 10 or 20 minute intervals up to 120 minutes. A detailed explanation of the method used may be found in the publications listed in the last paragraph of this explanation.

The present method, adopted with data for the calendar year 1936, gives the maximum fall of precipitation for the periods 5 to 180 minutes, the maximum amounts being taken for the periods in which the fall is greatest for the given time, and is tabulated to show maximum amounts for 5, 10, 15, 20, 30, 45, 60, 80, 100, 120, 150 and 180 minutes, even if the fall does not equal the excessive rate for some of the periods. (The 15 minute amount was not computed for 1936-43 and the 150 minute amount was not computed for 1944 through 1948).

The following Table A shows limits at which precipitation was considered excessive in this publication:

TABLE A

Duration (minutes)	Depth of precipitation (inches)	Duration (minutes)	Depth of precipitation (inches)
5	.25	60	.80
10	.30	80	1.00
15	.35	100	1.20
20	.40	120	1.40
30	.50	150	1.70
45	.65	180	2.00

This table is made up from the formula, A = t + 20 where A is the accumulated depth in hundredths of inches and t is the time in minutes.

For the years 1936 through 1948 stations in North Carolina, South Carolina, Georgia, Florida, Alabama, Mississippi, Tennessee, Arkansas, Louisiana, Texas, Oklahoma, and San Juan, P. R. used the limits shown in the following Table B:

TABLE B

Duration (minutes)	Depth of precipitation (inches)	Duration (minutes)	Depth of precipitation (inches)
5	.40	60	1.50
10	.50	80	1.90
15	.60	100	2.30
20	.70	120	2.70
30	.90	150	3.30
45	1.20	180	3.90

This table is made up from the formula A = 2t + 30. Its use, however, was discontinued at the end of 1948 and Table A is used by all sections for 1949 and the following years.

Publication of Data. A summary of maximum precipitation data for the years prior to 1896 is published in the annual report of the Chief of the Weather Bureau for 1895-1896. Excessive precipitation data for the period 1881-1896 are published in the annual report of the Chief of the Weather Bureau 1896-1897. Data for the years 1897 through 1934 have been published in the appropriate annual reports of the Chief of the Weather Bureau. For the years 1935 through 1949 these data are published in the appropriate issue of the United States Meteorological Yearbook. For 1950 and succeeding years excessive precipitation are presented in the annual issues of the Climatological Data, National Summary.

EXCESSIVE SHORT DURATION RAINFALL

YEAR 1962

Station and date	Maximum precipitation in inches (5 to 180 minutes)											
	5	10	15	20	30	45	60	80	100	120	150	180
ALABAMA												
Birmingham Airport												
Jan. 26	0.35	0.60	0.67	0.69	0.71	0.80	1.06	1.10	1.12	1.30	1.31	1.31
Mar. 10	.26	.44	.48	.51	.61	.63	.64	.67	.80	.86	.96	1.09
Mar. 30	.28	.31	.32	.34	.38	.38	.38	.38	.38	.38	.38	.38
May 30	.22	.34	.47	.53	.58	.66	.69	.72	.73	.77	.84	.87
June 12	.15	.29	.35	.44	.72	.95	1.10	1.13	1.15	1.15	1.15	1.15
June 19	.18	.35	.38	.42	.60	.83	.87	.97	1.00	1.01	1.02	1.03
July 3	.33	.42	.46	.47	.47	.47	.47	.47	.47	.47	.47	.47
July 4	.42	.51	.52	.55	.59	.61	.65	.65	.65	.65	.65	.65
July 4	.30	.32	.32	.32	.32	.32	.32	.32	.32	.32	.32	.32
July 4	.40	.50	.56	.60	.65	.80	.80	.80	.80	.80	.80	.80
Aug. 5	.25	.46	.49	.52	.63	.98	1.08	1.08	1.08	1.08	1.08	1.08
Aug. 20	.14	.25	.31	.42	.44	.47	.47	.47	.47	.47	.47	.47
Sept. 16	.56	.97	1.02	1.04	1.10	1.20	1.25	1.25	1.58	2.14	2.39	2.41
Oct. 2	.21	.31	.41	.55	.77	.92	1.30	1.41	1.42	1.42	1.43	1.44
Huntsville Airport												
Feb. 21	.20	.28	.31	.40	.63	.67	.73	.94	1.00	1.05	1.08	1.10
Feb. 23	.20	.32	.44	.50	.50	.50	.50	.50	.76	.82	.84	.88
Mar. 25	.14	.25	.36	.42	.52	.60	.61	.61	.61	.61	.62	.85
Mar. 31	.18	.30	.41	.58	.78	.94	.99	1.19	1.19	1.20	1.22	1.24
June 2	.18	.31	.45	.52	.62	.62	.62	.62	.62	.62	.62	.62
June 22	.16	.28	.38	.45	.54	.63	.64	.64	.64	.64	.69	.70
July 5	.24	.32	.44	.64	.83	.95	1.08	1.18	1.28	1.31	1.32	1.33
Sept. 4	.17	.32	.44	.54	.64	.76	.76	.76	.77	.77	.77	.77
Sept. 16	.20	.31	.51	.60	.67	.73	.74	.74	.74	.74	.74	.74
Oct. 2	.13	.25	.35	.41	.49	.58	.68	.99	1.02	1.03	1.05	1.06
Nov. 12	.14	.21	.27	.36	.51	.63	.66	.70	.73	.74	.84	.88
Montgomery Airport												
Feb. 23	.17	.30	.34	.34	.34	.41	.52	.60	.78	.80	.80	.80
Mar. 10	.23	.45	.63	.72	.93	1.11	1.21	1.23	1.23	1.27	1.64	1.64
Mar. 30	.23	.31	.44	.46	.51	.78	.79	.83	.84	.84	.84	84
Mar. 31	.21	.35	.47	.51	.62	.66	.69	.71	.91	1.05	1.25	1.42
Apr. 11	.25	.35	.50	.67	.75	.82	.83	.96	1.19	1.37	1.39	1.48
Apr. 12	.39	.62	.71	.75	.96	1.13	1.39	1.43	1.50	1.50	1.50	1.53
June 1	.24	.43	.56	.68	.86	1.01	1.06	1.11	1.11	1.11	1.11	1.11
June 8	.33	.60	.69	.73	.75	.78	.78	.79	.79	.79	.79	.79
June 19	.18	.36	.54	.66	.84	1.01	1.05	1.07	1.10	1.15	1.25	1.38
June 25	.45	.81	1.19	1.59	1.80	1.89	1.95	1.97	1.98	1.98	1.98	1.98
July 7	.49	.83	1.10	1.24	1.40	1.46	1.58	1.63	1.64	1.67	1.68	1.68
July 28	.45	.76	.89	.99	1.08	1.13	1.13	1.18	1.18	1.18	1.18	1.18
Aug. 14	.34	.60	.70	.84	1.07	1.13	1.72	1.83	1.99	2.02	2.04	2.10
Sept. 7	.15	.28	.35	.44	.53	.60	.62	.63	.63	.63	.63	.63
Sept. 14	.28	.50	.60	.64	.66	.67	.67	.68	.79	.80	.83	.83
Sept. 26	.37	.58	.81	.95	1.14	1.16	1.18	1.18	1.18	1.18	1.18	1.18
Nov. 21	.26	.40	.49	.52	.61	.65	.71	.80	.85	.90	.90	1.46
Nov. 21	.26	.40	.49	.54	.59	.96	1.03	1.09	1.21	1.25	1.27	1.32
ALASKA												
Anchorage Airport						None						
Annette Airport						None						
Cold Bay Airport						None						
Cordova Airport						None						
Fairbanks Airport						None						
Juneau Airport						None						
King Salmon Airport						None						
Yakutat Airport												
Sept. 12	.16	.26	.30	.36	.52	.58	.64	.74	.81	.88	.96	1.03
ARIZONA												
Phoenix Airport						None						
Prescott Airport												
July 22	.27	.40	.54	.60	.68	.84	.95	.97	.98	.98	.98	.98
Tucson Airport												
Sept. 26	.14	.20	.32	.40	.47	.56	.62	.65	.68	.69	.69	.69
Winslow Airport												
Oct. 17	.27	.39	.41	.42	.42	.42	.53	.61	.61	.61	.61	.65
Yuma Airport						None						
ARKANSAS												
Fort Smith Airport												
Feb. 26	.24	.30	.30	.31	.39	.40	.41	.41	.42	.42	.42	.44
June 10	.20	.36	.39	.40	.40	.40	.40	.40	.40	.40	.40	.40
July 10	.28	.52	.63	.77	.84	.95	.95	.97	1.02	1.04	1.08	1.10
Aug. 31	.40	.63	.68	.82	1.12	1.48	1.51	1.77	1.81	1.94	1.94	1.95
Oct. 16	.24	.36	.53	.61	.88	1.02	1.04	1.09	1.24	1.27	1.36	1.41
Little Rock Airport												
Jan. 22	.33	.38	.44	.55	.70	.85	.90	1.05	1.28	1.35	1.48	1.70
Feb. 27	.25	.36	.41	.44	.58	.60	.62	.64	.65	.66	.66	.66
Apr. 30	.20	.35	.52	.60	.74	.80	.82	.86	.92	.94	1.00	1.02
May 31	.35	.58	.86	1.10	1.45	1.65	1.69	1.72	1.74	2.05	2.06	2.06
June 2	.23	.31	.36	.42	.51	.52	.53	.53	.55	.55	.55	.56
June 25	.24	.45	.66	.68	.78	.97	.98	.98	.98	.98	.98	.98
July 11	.25	.43	.64	.85	.95	.98	1.01	1.02	1.27	1.65	1.71	1.71
Aug. 24	.24	.45	.65	.78	1.07	1.28	1.36	1.38	1.39	1.40	1.45	1.48
Oct. 16	.18	.29	.40	.42	.54	.55	.56	.58	.60	.61	.63	.68
Oct. 20	.25	.35	.55	.63	.75	.85	.93	.98	1.00	1.03	1.05	1.07
Texarkana Airport												
Feb. 23	.25	.30	.32	.33	.40	.45	.53	.59	.66	.70	.70	.80
Feb. 26	.22	.31	.33	.34	.43	.46	.53	.83	.91	.95	1.01	1.17
*Mar. 20	.35	.38	.42	.52	.55	.60	.62	.62	.62	.62	.62	.62
May 31	.25	.49	.70	.89	.97	.98	.99	.99	.99	.99	.99	1.01
June 1	.33	.65	.98	1.12	1.42	1.45	1.48	1.55	1.61	1.65	1.69	1.70
June 2	.24	.43	.45	.56	.60	.60	.60	.60	.61	.61	.61	.61
June 29	.25	.45	.59	.67	.72	.80	.82	.83	.84	.88	.90	.90
July 17	.35	.49	.60	.77	.95	.99	1.01	1.03	1.03	1.03	1.03	1.03
July 26	.13	.22	.25	.33	.50	.62	.75	.87	1.04	1.10	1.15	1.18
Sept. 6	.25	.41	.49	.61	.73	.78	.81	.90	.95	1.00	1.07	1.10
Sept. 30	.44	.65	.68	.72	.73	.78	.85	.88	.89	.90	.92	.96
ARKANSAS (Cont'd.)												
Texarkana Airport Cont'd.)												
Oct. 8	0.17	0.23	0.35	0.40	0.51	0.65	0.69	0.71	0.71	[illegible]	[illegible]	[illegible]
Oct. 14	.28	.54	.77	.97	1.26	1.31	1.31	1.31	1.31	[illegible]	[illegible]	1.31
Oct. 16	.18	.27	.33	.40	[illegible]	.63	[illegible]	[illegible]	.71	[illegible]	[illegible]	.74
Oct. 16	[illegible]	.26	.35	.43	.51	.55	.62	.82	.84	[illegible]	.88	.90
CALIFORNIA												
Bakersfield AP						None						
Blue Canyon AP						None						
Burbank Airport												
May 14	.27	.33	[illegible]	.35	.35	.35	.35	[illegible]	.35	[illegible]	.35	[illegible]
Eureka Airport						None						
Fresno Airport						None						
Mt. Shasta AP						None						
Red Bluff AP												
Oct. 12	.41	[illegible]	.98	[illegible]	1.08	1.10	1.12	1.14	[illegible]	1.18	[illegible]	1.22
Sacramento AP						None						
San Diego AP						None						
San Francisco												
Oct. 12	.17	.26	.38	.45	.55	.60	.67	.71	.80	.89	[illegible]	1.12
COLORADO												
Alamosa Airport						None						
Denver Airport						None						
Grand Junction AP												
Sept. 21	.20	.36	.43	.43	.43	.43	.43	.43	.43	.43	.43	.43
Pueblo Airport						None						
CONNECTICUT												
Bridgeport AP												
Apr. 1	.13	.25	.30	.35	.46	.65	.78	.93	1.10	[illegible]	1.30	[illegible]
July 9	.26	.40	.45	.57	.66	[illegible]	[illegible]	.80	.80	.80	.80	.80
Aug. 28	.12	.24	.30	.35	.57	.71	.87	1.05	1.17	1.24	1.32	1.49
Hartford Airport												
May 31	.38	.61	[illegible]	.81	.87	.92	.97	1.06	1.08	1.09	1.12	1.16
June 26	.32	.48	.49	.50	.50	.50	[illegible]	.50	[illegible]	[illegible]	[illegible]	[illegible]
July 9	.31	.50	.57	.60	.62	.81	.86	.88	.91	[illegible]	[illegible]	[illegible]
Aug. 17	.39	[illegible]	.83	.89	1.15	1.63	[illegible]	1.90	[illegible]	1.94	[illegible]	[illegible]
Sept. 1	.27	.30	.36	.37	[illegible]	.37	.39	.39	.39	.39	.39	.40
New Haven Airport												
Apr. 1	.19	.30	.44	[illegible]	.67	.84	.99	1.18	1.32	1.46	[illegible]	1.70
DELAWARE												
Wilmington Airport												
Aug. 6	.24	[illegible]	.40	.44	.49	.49	.49	.49	.49	.49	.49	.49
Aug. 17	.14	.22	[illegible]	.40	.48	.48	.48	.48	.48	.48	.48	.48
DISTRICT OF COLUMBIA												
Washington, D. C. AP												
May 31	.34	.68	.77	.88	.93	1.09	1.18	1.24	1.25	1.26	1.27	1.27
June 19	.26	.34	.40	.52	.60	.63	.63	.64	.64	.64	.64	[illegible]
July 21	.51	.68	.71	.72	.76	.76	.77	.82	.84	[illegible]	.86	.86
Oct. 4	.26	.44	.46	[illegible]	.60	.60	.60	.60	[illegible]	[illegible]	[illegible]	[illegible]
FLORIDA												
Apalachicola												
Apr. 28	.46	.68	.75	.77	.85	.88	.88	.89	.96	.96	.98	[illegible]
June 1	.22	.55	.52	.60	.67	.68	.69	.69	.69	.69	.69	.69
June 12	.30	.42	.45	.46	.56	.60	.61	.61	.61	.61	[illegible]	[illegible]
June 23	.23	[illegible]	.35	.38	.53	.56	[illegible]	.69	.91	1.11	1.21	1.21
Aug. 21					Rain Gage Inoperative							
Sept. 9					Rain Gage Inoperative							
Nov. 8	.15	.29	.39	.49	.68	[illegible]	1.20	1.40	1.67	1.78	1.98	2.07
Nov. 12	.22	.35	.45	.59	.69	.75	[illegible]	1.03	1.19	1.23	1.24	1.27
Daytona Beach AP												
June 7	.27	.42	.47	.62	.69	.78	.84	.89	.92	.93	.95	.96
June 13	.45	.75	1.04	1.18	1.40	1.42	1.45	1.45	1.45	1.70	2.00	2.30
June 15	.19	.35	.43	.48	.78	.84	.88	.88	.88	.88	.88	.88
June 20	.56	.80	.93	.97	.98	.98	.98	.98	.98	.98	.98	.98
June 25	.26	.39	.48	.52	.59	.80	.80	.80	.80	.80	.80	.80
June 27	.35	.65	.80	.88	.91	.91	.91	.91	.91	.91	.91	.91
July 7	.23	.46	.67	[illegible]	.74	.74	.74	.75	.77	.77	.77	.77
July 8	.37	.70	.81	.92	1.20	1.31	1.48	2.02	2.29	2.36	2.40	2.46
July 20	.22	.43	.45	.62	.75	.77	.77	.85	.90	.93	.95	.98
July 23	.19	.34	.39	.44	.69	.77	.82	.95	.99	1.00	1.00	1.00
July 29	.36	.71	.80	1.06	1.37	1.39	1.40	1.40	1.41	1.41	1.42	1.42
July 30	.25	.30	.40	.45	[illegible]	.55	.56	.60	.60	.60	.61	.65
Aug. 1	.28	.55	.68	.80	1.04	1.12	1.12	1.12	1.14	1.15	1.16	1.17
Aug. 16	.33	.43	.45	.47	.56	.78	.88	1.02	1.06	1.06	1.06	1.06
Aug. 23	.27	.54	.77	.83	1.02	1.25	1.77	1.80	1.82	1.84	1.85	1.85
Aug. 25	.20	.39	.44	.50	.56	.69	.76	[illegible]	1.02	1.19	1.23	1.23
Aug. 27	.24	.44	.65	.81	1.02	1.30	1.30	1.30	1.30	1.30	1.30	1.30
Sept. 7	.20	.40	.55	.70	.87	1.05	1.09	1.10	1.10	1.11	1.13	1.15
Sept. 19	.30	.60	.75	1.03	1.29	1.69	2.00	2.33	2.45	2.45	2.45	2.45
Sept. 21	.22	.40	.45	.66	.89	1.06	1.16	1.21	1.30	1.38	1.50	1.54
Oct. 14	.20	.35	.50	.70	.79	.96	.97	[illegible]	.99	.99	1.01	1.02
Oct. 17	.20	.35	.38	.51	.56	.66	.70	.72	.73	.82	[illegible]	.88
Nov. 9	.16	.32	.35	.37	.39	.41	.42	.42	.42	.42	.42	.42
Fort Myers AP												
Mar. 23	.20	.27	.37	.41	.46	.49	.55	[illegible]	[illegible]	.56	.56	.56
Mar. 26	.17	.30	.34	.37	.48	.49	.53	.70	.71	.75	.80	.80
June 1	.20	.33	.43	.47	.60	.68	.72	.74	.75	1.13	1.31	1.32
June 10	.21	.27	.43	.49	.62	.77	.90	[illegible]	1.00	1.01	1.02	1.02

* Estimated

EXCESSIVE SHORT DURATION RAINFALL

Station and date	Maximum precipitation in inches (5 to 180 minutes)											
	5	10	15	20	30	45	60	80	100	120	150	180
FLORIDA (Cont'd.)												
Fort Myers AP (Cont'd.)												
June 11	0.24	0.41	0.48	0.51	0.54	0.55	0.59	0.62	0.63	0.65	0.69	0.70
June 13	.42	.77	.87	.90	.91	.91	.91	.91	.91	.91	.91	.91
June 14	.45	.52	.53	.54	.54	.54	.54	.54	.54	.54	.54	.54
June 19	.27	.50	.72	.80	.92	.95	.95	.95	.95	.95	.95	.95
June 21	.30	.42	.43	.43	.44	.45	.45	.45	.47	.47	.47	.47
June 25	.45	.58	.85	.95	1.04	1.18	1.26	1.30	1.32	1.34	1.36	1.40
July 8	.33	.35	.39	.45	.55	.56	.59	.64	.67	.70	.70	.70
July 13	.30	.45	.50	.57	.65	.70	1.06	1.15	1.16	1.16	1.21	1.26
July 24	.30	.44	.53	.57	.64	.65	.65	.65	.65	.65	.65	.65
July 29	.57	.65	.65	.73	.96	1.31	1.35	1.35	1.35	1.35	1.35	1.35
July 30	.35	.70	.80	1.00	1.06	1.08	1.10	1.10	1.12	1.16	1.16	1.16
Aug 2	.40	.78	.86	.90	1.18	1.20	1.20	1.20	1.20	1.20	1.20	1.20
Aug. 7	.31	.57	.60	.65	.72	.76	.83	.83	.83	.83	.88	.88
Aug. 9	.33	.44	.44	.44	.44	.53	.60	.61	.61	.61	.61	.61
Aug. 10	.25	.40	.48	.55	.70	.74	.75	.75	.75	.75	.75	.75
Aug. 23	.43	.60	75	.90	1.16	1.19	1.20	1.21	1.21	1.21	1.22	1.24
Aug. 24	.41	.76	.87	1.10	1.50	1.73	1.77	1.77	1.78	1.80	1.83	1.86
Aug. 25	.35	.50	.58	.60	.67	.70	.72	.74	.75	.75	.75	.75
Aug. 31	.21	.40	.44	.49	.50	.50	.51	.52	.52	.52	.52	.52
Sept. 9	.20	.30	.40	.46	.71	.74	.77	.85	1.13	1.22	1.23	1.23
Sept. 10	.35	.47	.47	.47	.47	.57	.58	.58	.58	.58	.58	.58
Sept. 16	.35	.54	.62	.65	.67	.68	.68	.68	.68	.68	.68	.68
Sept. 21	.34	.60	.63	.93	1.15	1.35	2.03	2.37	2.65	2.78	3.10	3.55
Oct. 2	.30	.36	.43	.46	.50	.52	.53	.54	.54	.54	.56	.57
Oct. 3	.60	1.10	1.25	1.35	1 45	2.01	2.27	2.37	2.48	2.51	2.51	2.53
Oct. 22	.31	.36	.50	.53	.56	.59	.60	.60	.61	.61	.61	.61
Oct. 23	.44	.53	.53	.53	.54	.54	.54	.54	.54	.54	.54	.76
Nov. 8	.31	.55	.56	.56	.61	.66	.74	.75	.91	1.15	1.38	1.56
Dec. 6	.22	.44	.45	.46	.49	.53	.54	.54	.54	.57	.57	.58
Jacksonville AP												
June 14	.46	.82	1.03	1.19	1.78	2.26	2.98	3.56	3.75	3.85	3.99	4.00
July 21	.30	.49	.59	.71	.82	1.07	1.15	1.16	1.16	1.16	1.16	1.44
July 27	.29	.52	.65	.80	.95	1.04	1.09	1.18	1.29	1.33	1.33	1.34
July 28	.27	.40	.47	.51	.52	.55	.56	.56	.56	.56	.56	.56
July 31	.30	.46	.55	.64	.70	.75	.75	.75	.75	.75	.75	.75
Aug. 2	.45	.80	.94	1.07	1.34	1.61	2.21	2.49	2.67	2.90	3.11	3.15
Aug. 4	.37	.48	.66	.68	.76	.83	1.04	1.15	1.21	1.27	1.28	1.30
Aug. 6	.29	.52	.74	.93	1.18	1.28	1.28	1.30	1.33	1.38	1.45	1.52
Aug. 8	.18	.34	.43	.44	.47	.51	.53	.53	.53	.53	.53	.53
Aug. 23	.24	.42	.51	.56	.73	.84	.85	.86	.86	.86	.86	.86
Key West Airport												
May 5	.46	.86	1.15	1.20	1.26	1.30	1.30	1.30	1.30	1.30	1.30	1.30
June 13	.38	.54	.80	.94	1.16	1.24	1.25	1.27	1.33	1.35	1.40	1.40
July 18	.20	.40	.50	.64	.68	.70	.71	.71	.71	.71	.71	.71
Aug. 10	.35	.68	.80	.88	1.16	1.56	1.65	1.72	1.73	1.74	1.80	1.82
Aug. 11	.22	.42	.61	.61	.61	.61	.61	.61	.61	.61	.61	.61
Aug. 13	.40	.76	1.00	1.30	1.36	1.36	1.36	1.37	1.37	1.37	1.37	1.37
Aug. 29	.28	.46	.49	.56	.63	.63	.70	.74	.77	.78	.80	.80
Aug. 30	.28	.46	.51	.54	.56	.56	.56	.56	.56	.56	.56	.56
Sept. 23	.21	.42	.50	.54	.57	.74	.98	1.03	1.03	1.04	1.04	1.04
Oct. 7	.40	.70	.92	1.20	1.65	1.72	1.74	1.74	1.74	1.74	1.74	1.74
Oct. 8	.18	.36	.47	.56	.68	.70	.70	.70	.70	.70	.70	.70
Nov. 9	.40	.42	.42	.43	.44	.45	.47	.49	.49	.49	.49	.50
Dec. 1	.18	.24	.37	.40	.47	.55	.56	.81	.86	1.01	1.08	1.35
Dec. 1	.14	.23	.29	.33	.52	.66	.85	.88	1.00	1.01	1.01	1.01
Miami Airport												
March 3	.30	.40	.41	.42	.43	.44	.45	.45	.45	.45	.45	.45
Mar. 23	.27	.30	.36	.41	.48	.50	.54	.62	.68	.75	.77	.77
June 14	.32	.42	.58	.60	.62	.65	.68	.70	.70	.70	.70	.70
June 19	.26	.35	.36	.38	.40	.42	.42	.42	.42	.42	.42	.42
June 20	.45	.70	.75	.77	.87	.98	1.16	1.18	1.20	1.26	1.60	1.65
June 21	.30	.45	.50	.56	.75	.76	.78	.92	1.15	1.16	1.18	1.23
July 6	.40	.42	.45	.50	.62	.65	.71	.71	.71	.71	.71	.71
July 12	.30	.43	.44	.48	.73	.85	.87	.88	.91	.91	1.25	1.33
Aug. 8	.32	.55	.60	.67	.67	.68	.68	.68	.68	.68	.68	.68
Aug. 9	.35	.52	.56	.62	.64	.64	.66	.66	.70	.72	.72	.72
Aug. 11	.30	.58	.70	.78	1.08	1.63	1.83	1.92	1.98	1.99	2.00	2.00
Aug. 18	.45	.80	1.00	1.30	1.60	1.61	1.65	1.69	1.69	1.69	1.69	1.70
Sept. 6	.29	.45	.47	.57	.69	.71	.71	.71	.71	.71	.71	.71
Sept. 10	.30	.50	.51	.52	.54	.54	.65	.65	.65	.65	.65	.65
Sept. 18	.30	.48	.50	.53	.64	.66	.68	.69	.70	.74	.78	.79
Sept. 19	.30	.46	.49	.51	.55	.56	.56	.56	.56	.56	.56	.56
Sept. 20	.29	.32	.32	.33	.37	.38	.46	.50	.60	.60	.60	.60
Sept. 21	.25	.35	.40	.49	.70	.90	1.14	1.17	1.33	1.35	1.36	1.40
Nov. 9	.55	.65	.67	.90	1.22	1.45	1.65	1.75	2.00	2.45	2.90	3.10
Miami												
Jan. 21	.20	.30	.35	.37	.37	.37	.37	.37	.38	.65	.68	.68
Apr. 12	.21	.41	.49	.62	.65	.67	.67	.67	.67	.67	.67	.67
May 31	.50	.74	.83	.89	.92	1.06	1.13	1.14	1.14	1.15	1.15	1.15
June 1	.19	.29	.38	.43	.51	.74	.98	1.06	1.10	1.12	1.15	1.17
June 17	.48	.82	.88	.89	.91	.92	.92	.92	.92	.92	.92	.92
June 20	.33	.55	.62	.72	.90	1.01	1.08	1.27	1.46	1.74	1.91	2.26
June 21	.32	.50	.60	.67	.69	.70	.88	1.00	1.00	1.00	1.07	1.25
July 6	.22	.34	.40	.43	.47	.48	.50	.50	.50	.50	.58	.61
July 9	.24	.34	.37	.39	.40	.41	.41	.41	.41	.41	.41	.41
July 15	.33	.60	.76	.85	.91	.93	.93	.94	.94	.94	.94	.94
Aug. 4	.20	.33	.37	.40	.45	.46	.46	.46	.46	.46	.46	.46
Aug. 11	.24	.47	.54	.65	.86	.99	1.21	1.24	1.25	1.26	1.27	1.30
Aug. 27	.30	.52	.72	.75	.76	.91	1.12	1.15	1.15	1.15	1.21	1.22
Sept. 6	.27	.50	.77	.88	.92	.94	.94	.94	.94	.94	.94	.94
Sept. 10	.25	.38	.39	.39	.39	.45	.52	.53	.53	.53	.53	.53
Sept. 21	.34	.62	.84	.92	1.06	1.44	1.71	1.72	1.83	1.84	1.92	2.02
Sept. 21	.22	.33	.36	.37	.38	.38	.38	.38	.38	.38	.38	.38
Sept. 23	.20	.39	.51	.63	.74	.83	.87	.98	1.08	1.11	1.14	1.23
Oct. 5	.25	.34	.36	.38	.39	.40	.40	.40	.40	.40	.40	.40
Oct. 30	.25	.35	.54	.64	.86	.98	1.06	1.07	1.17	1.24	1.25	1.25
Nov. 9	.52	.82	1.14	1.32	1.81	2.37	2.83	3.07	3.22	3.71	4.38	5.04
Miami Beach												
*June 1	.15	.30	.36	.41	.55	.55	.55	.55	.57	.59	.59	.59
June 16	.33	.35	.37	.41	.46	.49	.50	.50	.50	.50	.55	.62
June 17	.25	.40	.52	.62	.82	.90	.92	.92	.92	.92	.92	.92
July 3	.50	.65	.80	1.05	1.15	1.17	1.17	1.17	1.17	1.17	1.17	1.17
July 5	.15	.20	.35	.36	.45	.45	.45	.45	.45	.45	.45	.45
July 7	.24	.35	.44	.45	.47	.51	.53	.53	.53	.54	.55	.55
July 11	.29	.35	.39	.47	.58	.62	.85	.92	.98	1.02	1.06	1.07
Aug. 9	.35	.46	.47	.48	.48	.49	.52	.54	.57	.58	.60	.60
Aug. 14	.20	.33	.40	.44	.45	.45	.45	.45	.45	.45	.45	.58
Sept. 20	.24	.29	.36	.38	.47	.51	.51	.52	.57	.60	.60	.60
Sept. 23	.54	.92	1.06	1.25	1.50	1.84	2.18	2.48	2.65	2.75	2.79	2.81
FLORIDA (Cont'd.)												
Miami Beach (Cont'd.)												
Oct. 30	0.30	0.57	0.69	0.93	1.20	1.34	1.43	1.45	1.47	1.47	1.49	1.50
Nov. 9	.24	.30	.31	.40	.43	.50	.52	.57	.64	.72	.79	.81
Orlando AP												
Apr. 29	.25	.50	.62	.76	.77	.78	.79	.79	.80	.81	.81	.81
May 27	.38	.63	.68	.77	.99	1.09	1.12	1.16	1.16	1.16	1.16	1.16
May 30	.33	.58	.62	.67	.72	.74	.76	.77	.78	.80	.81	.81
June 8	.36	.70	.81	.89	.97	.99	1.02	1.04	1.07	1.10	1.11	1.12
June 20	.68	.73	.74	.74	.75	.75	.75	.75	.75	.75	.75	.75
July 7	.35	.38	.38	.38	.46	.50	.50	.50	.50	.50	.50	.50
July 19	.38	.70	.79	.90	.96	.98	1.03	1.05	1.05	1.06	1.06	1.09
July 20	.18	.35	.39	.50	.53	.55	.56	.56	.57	.58	.59	.60
July 27	.28	.42	.55	.65	.88	1.02	1.16	1.34	1.36	1.39	1.39	1.39
July 28	.46	.56	.73	.87	1.15	1.20	1.24	1.61	1.70	1.76	1.80	1.81
July 29	.50	.91	1.20	1.41	1.53	1.58	1.58	1.58	1.58	1.61	1.63	1.63
July 30	.22	.38	.43	.48	.68	.83	.86	.88	.90	.93	.99	1.00
July 31	.23	.43	.53	.73	.78	.81	.81	.82	.83	.84	.84	.84
Aug. 1	.24	.31	.32	.33	.34	.34	.34	.35	.45	.54	.56	.57
Aug. 18	.25	.36	.43	.58	.69	.85	.89	.89	.92	.94	.94	.94
Aug. 24	.25	.44	.54	.75	1.11	1.19	1.20	1.20	1.20	1.20	1.20	1.20
Sept. 6	.28	.46	.48	.56	.78	.82	.84	.85	.87	.88	.90	.91
Sept. 7	.13	.21	.28	.38	.57	.65	.71	.75	.76	.76	.76	.76
Sept. 13	.34	.59	.65	.71	.80	.81	.81	.81	.81	.81	.81	.81
Sept. 14	.22	.38	.48	.55	.57	.62	.63	.63	.63	.63	.63	1.10
Sept. 18	.34	.68	.83	1.05	1.45	2.06	2.21	2.25	2.28	2.29	2.32	2.41
Sept. 19	.29	.47	.60	.75	1.09	1.45	1.68	1.84	1.85	1.86	2.15	2.34
Oct. 3	.19	.35	.41	.47	.55	.64	.71	.75	.76	.76	.76	.76
Oct. 31	.25	.32	.34	.39	.42	.53	.54	.55	.55	.55	.55	.55
Dec. 25	.20	.34	.45	.54	.72	.84	1.08	1.09	1.10	1.10	1.41	1.42
Pensacola												
Jan. 5	.23	.42	.61	.70	.89	.97	1.00	1.04	1.14	1.20	1.25	1.29
Jan. 27	.24	.36	.40	.44	.55	.66	.70	.71	.76	.80	.81	.82
Feb. 16	.26	.45	.64	.73	.83	.85	.86	.86	.86	.86	.86	.86
Mar. 31	.18	.32	.40	.47	.61	.69	.71	.72	.73	.74	.75	.77
Mar. 31	.31	.41	.44	.45	.46	.48	.49	.50	.50	.50	.50	.51
Apr. 25	.28	.34	.49	.59	.69	.72	.76	.80	.84	1.07	1.43	1.50
June 6	.36	.50	.63	.72	.77	.79	.79	.79	.79	.79	.79	.79
June 23	.27	.37	.49	.61	.80	.84	.85	.85	.86	.87	.87	.87
June 24	.37	.59	.72	.76	.84	.87	.91	.91	.93	.93	1.00	1.02
July 5	.25	.46	.64	.80	1.00	1.10	1.11	1.13	1.13	1.13	1.13	1.13
July 12	.37	.55	.75	.81	.98	1.17	1.18	1.19	1.19	1.29	1.97	1.99
July 22	.39	.66	.81	.82	.82	.83	.83	.83	.83	.83	.83	.83
July 30	.29	.42	.46	.47	.47	.47	.50	.52	.52	.52	.52	.52
Aug. 7	.21	.29	.34	.42	.49	.56	.61	.62	.62	.62	.62	.62
Sept. 7	.19	.29	.35	.40	.44	.47	.48	.51	.51	.51	.52	.52
Sept. 8	.34	.51	.56	.57	.61	.69	.69	.69	.69	.69	.73	.75
Oct. 1	.36	.66	.85	.87	.88	.89	.90	.90	.96	1.00	1.47	1.47
Nov. 8	.31	.50	.66	.73	.85	.89	.90	1.10	1.20	1.32	1.74	1.83
Nov. 20	.24	.43	.53	.63	.73	.93	1.09	1.18	1.20	1.22	1.27	1.28
Tallahassee AP												
Jan. 6	.27	.41	.43	.43	.44	.45	.47	.47	.48	.49	.56	.56
Feb. 16	.17	.26	.33	.40	.48	.52	.64	.77	.78	.78	.78	.78
Mar. 31	.43	.85	1.12	1.22	1.35	1.68	1.88	2.01	2.28	2.70	3.15	3.40
Mar. 31	.25	.34	.38	.52	.69	.82	1.00	1.30	1.61	1.73	1.91	2.12
Apr. 6	.25	.41	.50	.60	.69	.76	.83	.88	.89	.91	.94	.95
Apr. 12	.35	.37	.37	.38	.38	.38	.38	.38	.38	.38	.38	.38
May 30	.25	.35	.37	.38	.39	.42	.43	.44	.45	.45	.45	.45
June 7	.27	.29	.30	.30	.30	.30	.30	.30	.30	.30	.30	.30
June 8	.52	.91	1.11	1.12	1.13	1.14	1.15	1.15	1.15	1.15	1.15	1.15
June 14	.35	.56	.64	.88	.95	.98	1.00	1.02	1.02	1.02	1.02	1.02
June 21	.23	.44	.51	.70	.83	.84	.84	.84	.84	.84	.84	.84
June 22	.19	.34	.49	.59	.70	.85	.90	.92	.93	.95	.95	.95
June 28	.25	.30	.32	.35	.40	.42	.42	.43	.44	.44	.44	.45
July 17	.50	.81	.87	.88	.89	.90	.90	.90	.90	.90	.90	.90
July 18	.25	.30	.31	.32	.34	.35	.35	.35	.35	.35	.35	.35
July 27	.26	.40	.42	.42	.42	.42	.42	.42	.42	.42	.42	.42
July 30	.18	.35	.37	.39	.43	.43	.43	.43	.43	.43	.43	.43
Aug. 1	.51	.57	.63	.72	.76	.83	.87	.91	.92	.93	.99	1.03
Aug. 8	.72	1.36	1.54	1.74	1.94	2.07	2.16	2.18	2.30	2.68	2.86	2.89
Aug. 17	.30	.58	.60	.64	.76	.78	.81	.85	.89	.91	.95	.96
Sept. 7	.46	.70	.71	.72	.72	.72	.72	.72	.72	.72	.72	.72
Sept. 8	.28	.42	.43	.50	.75	1.00	1.13	1.22	1.24	1.24	1.24	1.24
Sept. 23	.35	.60	.64	.70	.79	.83	.85	.88	1.22	1.43	1.54	1.58
Sept. 23	.20	.33	.38	.47	.75	.95	1.03	1.19	1.25	1.27	1.66	1.90
Sept. 26	.28	.38	.40	.52	.60	.64	.70	.88	.95	.95	.95	.95
Tampa Airport												
Jan. 1	.30	.42	.47	.47	.48	.48	.48	.48	.48	.48	.48	.48
Jan. 6	.37	.43	.44	.45	.45	.45	.45	.45	.45	.45	.45	.45
Feb. 16	.20	.40	.45	.50	.60	.80	.81	.81	.81	.81	.81	.81
Mar. 25	.30	.45	.50	.55	.72	.73	.74	.74	.75	.77	1.18	1.35
Mar. 25	.33	.44	.48	.60	.69	.72	.73	.78	.79	.79	1.18	1.49
May 28	.20	.35	.40	.45	.50	.55	.55	.56	.56	.56	.56	.56
May 30	.25	.30	.31	.35	.50	.54	.55	.60	.62	.62	.62	.62
May 31	.20	.30	.35	.36	.36	.43	.46	.52	.58	.61	.65	.70
June 16	.25	.35	.40	.45	.70	.79	.79	.79	.79	.79	.79	.79
June 21	.25	.40	.40	.43	.43	.43	.43	.43	.57	.69	.80	.85
June 28	.40	.80	.90	1.10	1.35	1.38	1.38	1.38	1.38	1.38	1.38	1.38
July 11	.25	.45	.60	.64	.68	.70	.71	.72	.72	.72	.72	.72
July 14	.25	.34	.41	.44	.48	.49	.50	.51	.51	.51	.51	.52
July 21	.40	.45	.46	.50	.50	.50	.50	.54	.54	.54	.54	.54
Aug. 14	.35	.45	.45	.50	.53	.55	.55	.60	.64	.64	.64	.64
Aug. 21	.65	.80	.86	1.00	1.15	1.24	1.42	1.48	1.52	1.56	1.64	1.71
Aug. 22	.25	.43	.54	.72	.87	.92	.95	.97	.99	1.05	1.12	1.18
Aug. 23	.37	.59	.70	.74	.80	.81	1.03	1.33	1.41	1.46	1.51	1.53
Aug. 28	.25	.50	.60	.70	.86	.90	.90	.90	.90	.90	.90	.90
Aug. 30	.31	.57	.67	.79	.84	.85	.86	.86	.86	.86	.86	.86
Sept. 3	.26	.28	.29	.30	.31	.31	.31	.31	.31	.31	.31	.31
Sept. 10	.29	.33	.36	.37	.38	.38	.38	.38	.38	.38	.38	.38
Sept. 14	.27	.36	.43	.47	.54	.59	.65	.69	.69	.78	.92	1.00
Nov. 3	.38	.38	.38	.38	.38	.38	.38	.38	.38	.38	.38	.38
Nov. 12	.20	.30	.34	.36	.37	.37	.40	.50	.50	.50	.50	.50
West Palm Beach AP												
Jan. 9	.20	.35	.49	.54	.58	.64	.69	.69	.69	.69	.69	.69
Feb. 7	.38	.60	.80	.95	1.01	1.05	1.05	1.05	1.05	1.05	1.05	1.05
Mar. 25	M	M	M	M	M	M	1.38	1.39	1.46	1.47	1.47	1.47
Mar. 25	.26	.41	.60	.60	.67	.75	.99	1.30	1.60	1.74	1.87	1.87
Apr. 8	.32	.58	.62	.70	.73	.73	.73	.73	.73	.73	.73	.73
June 7	.39	.64	.70	.71	.73	.74	.75	.75	.75	.75	.75	.75
June 13	.22	.35	.44	.46	.47	.59	.60	.60	.60	.60	.60	.60
June 20	.20	.30	.36	.41	.44	.44	.44	.44	.44	.44	.44	.44

* Records started June 1.

M Missing

EXCESSIVE SHORT DURATION RAINFALL

Station and date	Maximum precipitation in inches (5 to 180 minutes)											
	5	10	15	20	30	45	60	80	100	120	150	180
FLORIDA (Cont'd.)												
West Palm Beach AP (Cont'd.)												
June 30	0.45	0.75	0.98	1.09	1.12	1.22	1.27	1.30	1.31	1.40	1.40	1.40
July 1	.35	.50	.73	.95	1.15	1.38	1.51	1.60	1.62	1.67	1.88	2.00
July 6	.24	.36	.41	.43	.49	.56	.57	.60	.60	.60	.61	.62
July 10	.21	.25	.36	.45	.51	.65	.86	.94	.97	.99	1.00	1.00
July 13	.30	.55	.75	1.00	1.25	1.51	1.62	1.66	1.69	1.70	1.70	1.70
July 14	.20	.33	.45	.55	.63	.70	.78	.80	.80	.80	.80	.80
Aug. 4	.27	.32	.33	.34	.36	.37	.37	.37	.37	.37	.37	.37
Aug. 5	.32	.46	.52	.52	.53	.53	.53	.54	.54	.54	.54	.54
Aug. 7	.35	.55	.80	.93	1.05	1.12	1.14	1.15	1.16	1.16	1.17	1.19
Aug. 9	.20	.40	.52	.57	.65	.66	.67	.68	.70	.70	.70	.71
Aug. 15	.30	.50	.65	.85	.90	.93	.93	.93	.93	.93	.93	.93
Aug. 28	.21	.37	.42	.87	1.07	1.33	1.36	1.36	1.37	1.37	1.39	1.40
Sept. 21	.35	.65	.81	.92	1.08	1.29	1.87	2.11	2.14	2.18	2.22	2.29
Sept. 21	.19	.34	.43	.47	.57	.62	.64	.66	.67	.68	.82	.89
Sept. 23	.35	.55	.80	.93	1.03	1.04	1.05	1.05	1.05	1.05	1.05	1.05
Sept. 28	.35	.69	.82	.89	.91	1.00	1.02	1.03	1.03	1.03	1.03	1.03
Oct. 23	.25	.36	.51	.61	.64	.65	.65	.65	.65	.65	.65	.65
Dec. 24	.30	.55	.71	.83	.87	.99	1.08	1.14	1.14	1.14	1.15	1.15
GEORGIA												
Athens Airport												
Mar. 26	.26	.31	.34	.36	.42	.48	.49	.50	.50	.50	.50	.50
Apr. 6	.20	.30	.43	.50	.69	.86	1.04	1.15	1.21	1.27	1.31	1.33
Apr. 25	.19	.38	.55	.70	.92	.96	1.00	1.02	1.07	1.09	1.12	1.13
May 28	.30	.35	.37	.41	.53	.90	.94	.96	.96	.96	.96	.96
June 5	.25	.35	.40	.45	.46	.46	.46	.60	.60	.60	.60	.60
July 8	.35	.55	.56	.57	.59	.60	.60	.60	.60	.60	.60	.60
July 12	.32	.57	.62	.64	.67	.68	.73	.73	.73	.73	.73	.73
July 24	.30	.50	.53	.54	.55	.55	.55	.55	.55	.55	.55	.55
Aug. 6	.36	.51	.74	.77	.81	.82	.82	.83	.83	.83	.83	.83
Aug. 13	.19	.23	.37	.51	.66	.73	.75	.76	.76	.76	.76	.82
Aug. 13	.25	.47	.50	.50	.51	.52	.53	.54	.58	.60	.60	.60
Sept. 7	.40	.62	.78	.86	1.05	1.25	1.32	1.33	1.34	1.44	1.75	1.75
Sept. 26	.23	.43	.55	.70	.98	1.25	1.40	1.52	1.58	1.63	1.67	1.71
Nov. 21	.27	.49	.52	.55	.57	.62	.68	.76	.81	.84	.90	.94
Atlanta Airport												
Mar. 10	.30	.39	.40	.42	.52	.55	.63	.77	.83	.91	.95	.97
Mar. 11	.51	.53	.54	.54	.55	.57	.58	.58	.58	.59	.60	.60
Mar. 21	.32	.47	.49	.54	.62	.70	.76	.76	.76	.80	.80	.80
Apr. 6	.20	.30	.36	.43	.48	.51	.55	.60	.66	.68	.69	.70
Apr. 11	.23	.36	.42	.50	.60	.63	.73	.75	.76	.99	1.25	1.55
Apr. 29	.23	.27	.35	.38	.40	.47	.56	.59	.65	.69	.69	.69
June 12	.31	.40	.56	.59	.65	.76	.82	.82	.82	.82	.82	.82
June 19	.27	.36	.54	.60	.75	.75	.75	.75	.75	.75	.75	.75
June 27	.47	.56	.64	.66	.66	.66	.66	.66	.66	.66	.66	.66
July 3	.32	.46	.48	.49	.50	.50	.50	.50	.50	.50	.50	.50
July 30	.27	.45	.55	.68	1.00	1.10	1.12	1.12	1.12	1.12	1.12	1.12
Sept. 14	.30	.40	.44	.46	.48	.49	.49	.49	.49	.49	.49	.52
Sept. 26	.22	.40	.52	.58	.59	.64	.80	.93	1.05	1.14	1.42	1.65
Oct. 3	.21	.37	.50	.59	.63	.65	.65	.66	.66	.66	.66	.66
Oct. 7	.16	.30	.31	.31	.32	.32	.32	.32	.32	.32	.32	.32
Augusta Airport												
Jan. 6	.17	.32	.38	.44	.52	.57	.68	.73	.84	.90	.93	.95
Feb. 19	.20	.36	.39	.40	.42	.43	.43	.43	.58	.61	.62	.63
Feb. 22	.20	.35	.43	.56	.74	.82	.98	1.11	1.40	1.50	1.77	2.03
May 28	.28	.55	.64	.75	.83	.85	.87	.87	.87	.87	.87	.87
June 7	.26	.38	.41	.43	.47	.50	.78	.83	.84	.93	1.32	1.35
June 13	.18	.24	.34	.44	.49	.66	.76	.78	.81	.81	.81	.81
June 16	.37	.67	.76	1.12	1.48	1.50	1.51	1.51	1.51	1.51	1.51	1.51
Aug. 6	.23	.45	.62	.69	.80	.95	.95	.95	.95	.95	.95	.95
Aug. 15	.19	.36	.45	.48	.49	.50	.51	.51	.51	.51	.51	.51
Oct. 4	.22	.41	.47	.54	.59	.65	.68	.77	.80	.81	.86	.92
Columbus Airport												
Jan. 5	.30	.38	.42	.55	.75	1.00	1.27	1.35	1.47	1.55	1.61	1.70
Feb. 22	.55	.80	.90	1.25	1.35	1.55	1.70	1.81	1.89	1.90	1.97	1.97
Mar. 10	.27	.32	.36	.56	.63	.67	.73	.74	.74	.75	.80	.87
Mar. 11	.34	.50	.55	.57	.59	.76	.83	.90	.95	1.03	1.50	1.54
Mar. 11	.28	.37	.38	.39	.40	.41	.41	.41	.41	.41	.41	.41
Mar. 31	.20	.39	.51	.62	.82	.90	1.02	1.12	1.17	1.35	1.46	1.60
Apr. 6	.25	.31	.33	.35	.43	.48	.52	.77	.83	.94	.99	.99
Apr. 11	.30	.50	.60	.72	.83	1.02	1.23	1.30	1.33	1.43	1.50	1.52
Apr. 12	.45	.70	.77	.83	.87	.93	1.03	1.12	1.23	1.25	1.26	1.27
July 12	.25	.43	.45	.50	.61	.62	.63	.63	.63	.63	.63	.63
July 18	.40	.73	.78	.88	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02
July 20	.40	.60	.67	.85	.95	.95	.95	.95	.95	.95	.95	.95
July 25	.40	.68	.70	.75	.76	.78	.79	.79	.79	.79	.79	.79
July 28	.40	.65	.70	.85	.86	1.00	1.25	1.33	1.36	1.42	1.50	1.54
July 29	.50	.80	.81	.82	.83	.83	.83	.83	.83	.83	.83	.83
Aug. 7	.27	.37	.40	.42	.42	.42	.42	.42	.42	.42	.42	.42
Aug. 23	.25	.45	.50	.60	.75	.81	.85	.88	.90	.90	.91	.91
Sept. 13	.44	.45	.45	.46	.60	.96	.99	1.00	1.01	1.03	1.04	1.05
Sept. 17	.25	.37	.42	.50	.64	.68	.70	.70	.70	.70	.70	.70
Macon Airport												
Jan. 6	.20	.32	.41	.52	.78	1.01	1.29	1.60	1.78	1.83	2.31	2.48
Feb. 19	.32	.32	.32	.32	.32	.32	.32	.32	.35	.37	.38	.38
Mar. 11	.23	.35	.37	.46	.65	.88	.92	.98	1.03	1.08	1.11	1.13
Mar. 31	.29	.56	.70	.76	.84	.98	1.05	1.21	1.28	1.43	1.62	1.74
Apr. 12	.25	.47	.57	.49	.56	.63	.68	.75	.80	.83	.86	.86
May 22	.25	.30	.36	.36	.36	.36	.36	.36	.36	.36	.36	.36
May 31	.42	.82	1.05	1.35	1.60	1.82	2.04	2.25	2.47	2.51	2.58	2.69
Aug. 13	.30	.53	.70	.79	.91	.97	.99	1.02	1.05	1.06	1.12	1.16
Aug. 15	.36	.61	.78	.87	.99	1.05	1.08	1.10	1.10	1.10	1.10	1.10
Nov. 21	.39	.60	.68	.73	.76	.89	1.02	1.18	1.26	1.30	1.32	1.34
Rome Airport												
Apr. 11	.42	.45	.47	.49	.50	.55	.64	.70	.77	.80	1.17	1.25
Apr. 11	.29	.42	.46	.47	.49	.54	.59	.69	.78	.83	.83	.83
May 29	.21	.23	.35	.38	.50	.65	.68	.70	.75	.79	.81	.83
June 2	.28	.28	.29	.30	.30	.30	.30	.30	.30	.30	.30	.30
June 23	.40	.55	.87	1.17	1.32	1.37	1.37	1.37	1.43	1.69	1.69	1.69
July 30	.25	.33	.52	.53	.55	.55	.55	.55	.55	.55	.55	.55
Savannah Airport												
Jan. 6	.23	.36	.47	.58	.80	1.02	1.12	1.27	1.49	1.56	1.62	1.86
Jan. 27	.24	.40	.51	.61	.71	1.06	1.21	1.37	1.50	1.54	1.59	1.60
Apr. 26	.22	.44	.48	.51	.55	.55	.56	.57	.57	.57	.57	.57
Apr. 29	.25	.42	.52	.70	.88	.92	.94	.95	.95	.95	.96	.96
May 11	.27	.38	.45	.54	.65	.75	.77	.80	.87	.89	.92	.93
June 5	.28	.47	.55	.61	.67	.74	.77	.79	.80	.85	.88	.91

Station and date	Maximum precipitation in inches (5 to 180 minutes)											
	5	10	15	20	30	45	60	80	100	120	150	180
GEORGIA (Cont'd.)												
Savannah AP (Cont'd.)												
June 9	0.28	0.38	0.38	0.39	0.42	0.54	0.59	0.63	0.70	0.77	1.05	1.09
June 13	.30	.38	.42	.48	.50	.59	.71	.82	.85	.91	.96	.97
June 15	.33	.61	.89	1.14	1.41	1.48	1.48	1.48	1.48	1.48	1.49	1.49
June 25	.20	.36	.44	.49	.58	.61	.62	.62	.62	.62	.63	.72
July 7	.38	.60	.86	1.00	1.25	1.54	1.57	1.67	2.13	2.25	2.30	2.31
July 8	.44	.80	.94	.95	.95	.96	.97	1.02	1.03	1.05	1.06	1.06
July 22	.47	.76	.87	.97	1.07	1.25	1.26	1.27	1.50	1.79	1.88	1.88
Aug. 1	.26	.43	.52	.74	.87	.88	.88	.88	.88	.88	.88	.88
Aug. 6	.42	.75	1.08	1.35	1.59	1.75	1.80	1.82	1.82	1.83	1.85	1.86
Aug. 16	.25	.37	.51	.58	.59	.71	.74	.75	.75	.75	.75	.75
Sept. 6	.28	.50	.68	.76	.87	.91	.94	.95	.95	.95	.95	.95
Sept. 6	.27	.46	.63	.75	.90	1.07	1.10	1.14	1.20	1.23	1.25	1.27
Sept. 10	.35	.54	.59	.73	.82	.85	.85	.85	.85	.88	1.08	1.09
Sept. 26	.26	.36	.49	.71	.89	1.04	1.13	1.19	1.68	1.79	1.80	1.80
Nov. 22	.28	.29	.29	.29	.29	.29	.29	.29	.30	.31	.31	.31
Valdosta Airport												
Jan. 27	.24	.40	.52	.53	.55	.59	.61	.63	.68	.70	.70	.70
Feb. 19	.24	.34	.38	.48	.62	.62	.64	.64	.65	.77	.79	.79
Feb. 19	.22	.39	.44	.56	.95	1.21	1.24	1.24	1.24	1.24	1.24	1.24
Mar. 15	.23	.33	.38	.42	.47	.57	.64	.75	.81	.84	.91	.95
Mar. 31	.24	.44	.56	.69	.85	1.15	1.38	1.60	1.74	1.91	2.18	2.33
Mar. 31	.24	.43	.47	.49	.64	.77	.82	1.00	1.14	1.23	1.31	1.36
May 31	.24	.43	.59	.83	1.15	1.22	1.38	1.40	1.42	1.45	1.50	1.51
June 1	.29	.52	.64	.70	.83	.85	1.01	1.60	1.66	1.67	1.69	1.73
June 8	.50	.81	.99	1.09	1.35	1.80	1.95	1.98	1.98	1.98	2.00	2.00
July 8	.37	.55	.76	.84	.90	.92	.93	.94	.96	.97	.98	.98
Aug. 1	.33	.56	.72	.87	1.26	1.62	1.82	1.99	2.01	2.02	2.09	2.14
Aug. 6	.32	.58	.67	.73	.76	.78	.78	.78	.78	.78	.78	.78
Aug. 19	.37	.44	.45	.45	.45	.45	.45	.45	.45	.45	.45	.45
Aug. 22	.32	.52	.68	.82	.93	.98	1.10	1.12	1.14	1.17	1.20	1.21
Sept. 18	.26	.45	.53	.68	.77	.80	.82	.85	.85	.85	.85	.85
Sept. 27	.32	.51	.68	.84	1.13	1.46	1.85	1.91	1.97	1.98	2.01	2.01
Nov. 21	.24	.35	.41	.47	.63	.74	.77	.85	.86	.87	.88	.90
HAWAII												
Hilo Airport						None						
Honolulu Airport												
Dec. 25	.21	.37	.52	.56	.64	.79	.86	.94	1.00	1.03	1.08	1.15
Kahului Airport												
Dec. 17	.14	.25	.32	.39	.52	.58	.72	.90	.92	.92	.93	.93
Lihue Airport												
Jan. 6	.47	.91	1.20	1.46	1.73	1.91	2.21	2.42	2.45	2.49	2.65	3.14
Jan. 6	.34	.64	.89	1.11	1.48	1.77	2.06	2.26	2.39	2.43	2.60	2.65
Jan. 21	.46	.49	.51	.54	.64	.74	.92	1.28	1.31	1.31	1.31	1.31
Jan. 28	.27	.38	.45	.51	.58	.69	.75	.81	.81	.91	.96	.96
Mar. 11	.36	.48	.53	.58	.62	.77	.85	1.24	1.44	1.50	1.88	2.13
Mar. 12	.50	.83	1.08	1.17	1.43	1.87	2.07	2.32	2.59	3.00	3.42	3.53
Mar. 14	.23	.30	.35	.36	.36	.36	.36	.36	.36	.54	.56	.56
Mar. 18	.20	.30	.46	.52	.57	.58	.58	.58	.62	.64	.75	.78
Apr. 25	.42	.69	.81	.87	1.17	1.49	1.70	1.81	1.92	2.06	2.18	2.29
Apr. 27	.27	.43	.59	.80	.96	1.24	1.50	1.78	1.93	2.12	2.33	2.51
June 18	.27	.51	.58	.63	.75	.90	.94	.96	.99	1.00	1.00	1.00
Oct. 18	.21	.33	.41	.51	.54	.58	.59	.70	.75	.77	.78	.81
IDAHO												
Boise Airport						None						
Pocatello Airport						None						
ILLINOIS												
Cairo												
Feb. 23	.16	.26	.30	.35	.47	.61	.79	1.01	1.16	1.26	1.45	1.59
Apr. 28	.35	.43	.46	.49	.54	.60	.65	.70	.74	.75	.75	.75
Apr. 30	.33	.53	.67	.78	.78	.78	.78	.78	.78	.79	.80	.82
May 27	.51	.93	1.29	1.56	1.99	2.53	2.64	2.64	2.70	2.84	2.98	3.21
June 11	.20	.36	.49	.60	.84	1.06	1.08	1.08	1.12	1.13	1.13	1.13
June 21	.29	.42	.46	.47	.48	.48	.48	.48	.48	.48	.48	.48
July 6	.39	.58	.71	.95	1.12	1.17	1.18	1.18	1.18	1.18	1.20	1.21
July 12	.47	.68	.75	.82	.84	.84	.84	.84	.84	.84	.84	.84
Aug. 4	.13	.21	.32	.38	.54	.60	.63	.63	.65	.66	.71	.78
Aug. 7	.17	.27	.36	.47	.64	.75	.75	.75	.76	.76	.76	.76
Aug. 22	.26	.38	.45	.51	.54	.54	.54	.54	.54	.54	.55	.56
Aug. 31	.33	.45	.52	.54	.54	.55	.55	.55	.56	.57	.57	.57
Sept. 3	.23	.36	.42	.57	.82	.91	.93	.94	.94	.94	.94	.94
Sept. 14	.26	.39	.50	.64	.90	1.06	1.17	1.37	1.38	1.38	1.38	1.38
Sept. 14	.23	.42	.57	.66	.75	.88	.91	.92	.94	.95	.96	.96
Oct. 12	.41	.51	.52	.56	.72	1.07	1.21	1.47	1.48	1.55	1.59	1.60
Oct. 16	.26	.43	.52	.52	.52	.52	.52	.52	.52	.52	.52	.52
Chicago Airport (Midway)												
May 12	.25	.36	.42	.54	.57	.60	.65	.71	.72	.77	.78	.78
June 9	.52	.90	.96	.97	.97	.97	.97	.97	.97	.97	.97	.98
July 2	.15	.30	.36	.39	.53	.69	.77	.83	.86	1.12	1.31	1.31
July 22	.60	.94	1.16	1.47	1.54	1.59	1.63	1.68	1.74	1.78	1.81	1.81
Chicago Airport (O'Hare)												
*July 2	.40	.70	.79	.95	1.15	1.32	1.47	1.89	1.92	1.97	2.08	2.26
Moline Airport												
May 7	.33	.47	.50	.60	.84	.97	1.01	1.03	1.04	1.04	1.06	1.15
May 26	.20	.31	.38	.45	.58	.69	.79	.93	1.07	1.16	1.29	1.36
July 14	.32	.54	.59	.66	.77	.86	.92	.98	1.21	1.30	1.82	2.04
July 15	.19	.37	.38	.39	.39	.39	.39	.39	.39	.39	.39	.39
Aug. 24	.68	1.01	1.08	1.09	1.10	1.10	1.10	1.10	1.10	1.10	1.10	1.10
Oct. 19	.20	.31	.43	.56	.67	.69	.71	.88	.94	.96	.97	.97
Peoria Airport												
May 26	.16	.30	.46	.54	.66	.76	1.02	1.20	1.22	1.28	1.39	1.44
May 27	.30	.58	.66	.75	.80	.83	.90	.96	1.00	1.00	1.00	1.00
June 9	.19	.32	.43	.46	.47	.47	.47	.48	.48	.48	.52	.52
July 2	.25	.50	.66	.80	.86	.88	.90	1.06	1.08	1.09	1.10	1.11
Aug. 24	.30	.52	.82	.95	1.03	1.05	1.07	1.08	1.11	1.20	1.22	1.23
Sept. 4	.22	.34	.46	.49	.54	.61	.63	.64	.64	.64	.65	.65
Rockford Airport												
May 10	.28	.37	.47	.52	.57	.58	.62	.62	.65	.65	.68	.68
May 12	.20	.32	.40	.50	.60	.66	.69	.72	.75	.75	.75	.75

* Record began June 4.

EXCESSIVE SHORT DURATION RAINFALL

Station and date	Maximum precipitation in inches (5 to 180 minutes)											
	5	10	15	20	30	45	60	80	100	120	150	180
ILLINOIS (Cont'd.)												
Rockford AP (Cont'd.)												
July 2	0.15	0.29	0.37	0.43	0.70	0.77	0.97	1.11	1.21	1.30	1.43	1.62
Aug. 1	.25	.39	.42	.42	.42	.42	.42	.42	.42	.42	.79	.79
Aug. 24	.75	1.20	1.26	1.29	1.30	1.32	1.35	1.37	1.42	1.43	1.45	1.45
Sept. 10	.25	.33	.33	.34	.35	.42	.51	.76	.78	.80	.80	.80
Springfield AP												
May 8	.29	.40	.44	.46	.50	.55	.58	.59	.60	.61	.61	.61
June 9	.32	.51	.72	.76	.78	.82	.84	.87	.88	.88	.92	.92
July 4	.23	.34	.40	.52	.55	.56	.58	.58	.58	.58	.58	.58
July 11	.25	.40	.47	.51	.63	.71	.72	.72	.72	.72	.72	.72
July 13	.42	.74	.88	.93	.93	.93	.93	.93	.93	.93	1.20	1.43
Oct. 1	.14	.21	.30	.34	.42	.66	.84	1.00	1.06	1.14	1.26	1.26
INDIANA												
Evansville Airport												
May 20	.40	.49	.62	.70	.90	.93	.93	.93	.93	.93	.93	.93
May 26	.75	.83	.83	.83	.83	.83	.83	.83	.83	.83	.83	.83
May 26	.20	.36	.56	.73	.79	.92	1.00	1.00	1.00	1.00	1.00	1.00
June 1	.34	.52	.67	.70	.72	.74	.76	.76	.76	.76	.76	.76
July 5	.18	.33	.36	.37	.37	.37	.37	.37	.37	.37	.37	.37
July 13	.17	.30	.36	.40	.45	.47	.49	.53	.55	.56	.56	.56
Sept. 3	.55	.58	1.00	1.22	1.68	1.81	1.82	1.85	1.85	2.02	2.04	2.04
Sept. 14	.26	.34	.48	.53	.88	.98	.99	1.00	1.00	1.00	1.00	1.00
Sept. 14	.24	.34	.54	.66	.77	.87	.88	.90	.91	.91	.91	.91
Fort Wayne Airport												
May 26	.22	.44	.62	.77	1.21	1.33	1.34	1.41	1.42	1.42	1.42	1.42
May 30	.26	.51	.65	.71	.73	.77	.81	.91	.96	.99	1.00	1.01
June 30	.18	.34	.40	.40	.40	.40	.40	.40	.40	.40	.40	.40
July 20	.24	.48	.70	.92	1.01	1.02	1.03	1.03	1.03	1.03	1.03	1.03
Sept. 13	.25	.33	.38	.40	.41	.42	.43	.43	.43	.43	.43	.43
Indianapolis AP												
May 1	.25	.47	.66	.76	.82	.84	.88	.93	.97	.98	.98	.98
May 10	.25	.36	.45	.49	.60	.75	.76	.76	1.08	1.31	1.41	1.45
July 14	.22	.35	.49	.65	.95	1.32	1.50	1.65	1.96	2.19	2.36	2.43
Aug. 6	.21	.39	.49	.51	.55	.57	.58	.65	.98	1.02	1.08	1.12
Aug. 6	.46	.79	1.17	1.18	1.19	1.19	1.19	1.23	1.28	1.28	1.28	1.28
Sept. 3	.48	.94	1.14	1.62	1.99	2.09	2.21	2.27	2.33	2.38	2.43	2.49
Oct. 7	.22	.44	.58	.70	.70	.70	.70	.70	.70	.70	.70	.70
South Bend Airport												
June 4	.38	.60	.64	.64	.66	.67	.67	.67	.67	.67	.67	.80
June 8	.28	.50	.58	.62	.83	.87	.93	1.06	1.08	1.10	1.10	1.13
June 9	.30	.46	.46	.48	.49	.49	.49	.49	.49	.49	.54	.60
June 11	.16	.30	.33	.38	.47	.49	.59	.59	.59	.59	.59	.59
June 23	.42	.51	.52	.52	.55	.61	.66	.69	.69	.69	.69	.69
July 2	.40	.59	.62	.70	.99	1.07	1.20	1.27	1.42	1.58	1.85	2.25
July 20	.50	.52	.55	.57	.59	.62	.63	.64	.64	.64	.64	.64
Aug. 6	.27	.40	.45	.56	.70	.85	.90	.95	1.00	1.06	1.09	1.17
Aug. 31	.55	.81	.98	1.07	1.25	1.34	1.36	1.42	1.46	1.49	1.50	1.50
IOWA												
Burlington Airport												
May 5	.51	.60	.68	.73	.76	.82	.84	.90	.94	.95	.97	.99
May 7	.39	.41	.44	.46	.53	.54	.54	.54	.54	.54	.54	.54
June 10	.27	.35	.39	.41	.42	.42	.46	.49	.52	.52	.52	.52
July 15	.18	.24	.33	.47	.58	.66	.70	.76	.84	.87	.90	.94
Sept. 13	.25	.47	.50	.60	.60	.60	.60	.60	.70	.70	.70	.70
Oct. 2	.25	.34	.41	.46	.51	.54	.64	.71	.74	.81	.91	1.00
Des Moines Airport												
Apr. 27	.42	.44	.44	.44	.44	.44	.45	.45	.45	.46	.53	.54
May 7	.28	.44	.54	.71	.80	.92	1.04	1.29	1.32	1.33	1.34	1.54
May 22	.49	.59	.59	.59	.59	.59	.59	.59	.59	.63	.68	.68
May 28	.43	.55	.55	.57	.64	.68	.93	.99	1.07	1.09	1.09	1.10
June 10	1.20	1.46	1.48	1.50	1.55	1.57	1.58	1.58	1.58	1.58	1.58	1.58
June 10	.25	.32	.37	.51	.63	.76	1.02	1.02	1.02	1.02	1.02	1.02
Dubuque Airport												
May 5	.25	.40	.50	.65	1.00	1.05	1.07	1.10	1.12	1.13	1.13	1.14
May 12	.28	.36	.37	.40	.55	.65	.71	1.06	1.10	1.12	1.15	1.15
May 27-28	.51	.72	.85	1.15	1.55	1.91	2.08	2.40	2.53	2.87	2.88	2.88
June 17	.38	.53	.57	.57	.57	.57	.57	.57	.57	.57	.57	.57
July 2	.38	.48	.50	.53	.60	.65	.67	.71	.74	.77	.88	.94
July 2	.26	.32	.32	.32	.32	.32	.32	.32	.32	.32	.32	.32
July 20	.27	.51	.61	.69	.91	1.10	1.25	1.35	1.37	1.46	1.54	1.56
July 22	.40	.50	.52	.55	.57	.60	.72	.82	.85	.85	.85	.86
Sept. 4	.27	.34	.35	.37	.38	.39	.42	.42	.44	.45	.45	.45
Sept. 13	.25	.50	.60	.75	.93	1.05	1.07	1.07	1.07	1.07	1.07	1.07
Sioux City Airport												
May 14	.25	.29	.31	.33	.37	.38	.43	.47	.48	.49	.49	.49
May 18	.34	.52	.72	.87	1.03	1.22	1.30	1.30	1.30	1.30	1.30	1.30
June 7	.40	.52	.62	.66	.68	.68	.80	.82	.86	.88	.93	.95
June 10	.20	.30	.44	.50	.64	.68	.70	.94	1.16	1.19	1.19	1.19
June 15	.36	.60	.86	.94	1.43	1.46	1.46	1.46	1.46	1.46	1.46	1.46
June 16	.22	.40	.46	.54	.66	.72	.72	.92	.92	.92	.99	1.00
June 29	.25	.38	.44	.58	.62	.62	.62	.62	.63	.63	.94	.98
July 10	.25	.34	.36	.38	.40	.42	.43	.43	.43	.43	.43	.43
Aug. 9	.14	.28	.40	.45	.61	.66	.69	.70	.72	.76	.80	.82
KANSAS												
Concordia												
Mar. 24	.20	.31	.36	.38	.43	.45	.58	.67	.72	.78	.82	.84
May 28	.35	.54	.73	.79	.96	1.23	1.72	1.85	2.45	2.84	2.94	2.94
June 23	.22	.35	.44	.49	.53	.54	.56	.59	.64	.67	.70	.75
July 27	.20	.33	.47	.54	.57	.58	.58	.58	.58	.58	.58	.58
Aug. 2	.20	.31	.34	.35	.36	.40	.40	.40	.40	.40	.40	.40
Aug. 23	.26	.37	.52	.56	.69	.82	.84	.84	.84	.84	.84	.84
Sept. 18	.34	.60	.84	1.06	1.34	1.43	1.44	1.44	1.45	1.46	1.46	1.46
Dodge City Airport												
May 17	.30	.34	.35	.36	.37	.38	.40	.43	.46	.48	.51	.51
May 27	.20	.29	.35	.40	.51	.61	.62	.62	.62	.62	.62	.62
June 8	.26	.35	.36	.36	.37	.39	.42	.45	.48	.50	.53	.56
June 22	.18	.30	.36	.38	.39	.40	.40	.40	.40	.40	.40	.40
June 26	.30	.54	.70	.76	.78	.94	.97	.98	.98	.99	.99	.99
July 4	.14	.26	.32	.45	.50	.56	.67	.71	.75	.78	.83	.90
July 16	.28	.47	.54	.57	.58	.59	.60	.60	.60	.60	.60	.60
July 17	.25	.46	.63	.96	1.28	1.44	1.66	1.74	1.74	1.74	1.74	1.74
July 23	.32	.60	.74	.89	1.24	1.60	1.92	2.07	2.18	2.22	2.27	2.32

Station and date	Maximum precipitation in inches (5 to 180 minutes)											
	5	10	15	20	30	45	60	80	100	120	150	180
KANSAS (Cont'd.)												
Dodge City AP (Cont'd.)												
Aug. 1	0.20	0.26	0.36	0.46	0.58	0.70	0.75	0.86	0.89	0.91	0.91	0.92
Sept. 16	.70	.86	1.17	1.25	1.37	1.59	1.62	1.63	1.71	1.72	1.72	1.78
Goodland Airport												
May 17	.50	.68	.79	.83	.84	.84	.84	.84	.84	.84	.84	.84
June 6	.20	.33	.53	.62	.80	1.08	1.45	1.75	1.82	1.88	1.96	2.03
June 7	.20	.35	.50	.64	.74	.81	.96	1.13	1.23	1.29	1.38	1.52
June 12	.14	.28	.36	.47	.68	.93	1.15	1.25	1.32	1.53	2.04	2.06
July 31	.18	.26	.34	.45	.59	.66	.69	.74	.75	.76	.77	.78
Aug. 12	.22	.30	.38	.41	.46	.47	.47	.47	.47	.47	.47	.47
Topeka Airport												
Apr. 27	.16	.27	.38	.42	.47	.56	.60	.63	.68	.71	.73	.73
May 22	.26	.35	.36	.36	.36	.36	.36	.36	.36	.36	.36	.36
May 27	.14	.22	.34	.41	.54	.59	.72	.78	.82	.84	.84	.84
May 28	.20	.30	.48	.62	.80	.90	.91	.93	.94	.94	.94	1.10
May 28	.26	.38	.45	.48	.57	.65	.73	.80	.88	.92	.94	.94
June 18	.30	.52	.71	.89	1.41	1.47	1.47	1.47	1.47	1.47	1.47	1.47
July 13	.20	.40	.48	.56	.66	.68	.69	.69	.70	.70	.70	.70
July 20	.20	.28	.32	.40	.53	.70	.81	.83	1.02	1.13	1.22	1.39
Aug. 4	.30	.54	.59	.66	.78	1.24	1.45	1.58	1.66	1.72	1.87	1.92
Aug. 23	.24	.35	.40	.43	.53	.56	.62	.67	.67	.67	.68	.69
Aug. 24	.25	.43	.64	.82	.98	1.32	1.46	1.59	1.69	1.72	2.08	2.38
Sept. 14	.18	.36	.47	.54	.72	.98	1.02	1.04	1.04	1.04	1.04	1.04
Wichita Airport												
June 26	.25	.44	.54	.58	.65	.71	.75	.78	.82	.84	.88	.89
July 23	.76	1.34	1.49	1.62	1.83	2.00	2.03	2.03	2.03	2.34	2.34	2.35
July 29	.80	1.23	1.35	1.49	1.55	1.58	1.64	1.65	1.65	1.66	1.66	1.66
Aug. 24	.25	.35	.40	.43	.53	.64	.71	.83	.87	.92	.98	1.03
Sept. 15	.80	1.11	1.21	1.25	1.29	1.34	1.47	1.62	1.66	1.96	2.31	2.31
Sept. 21	.24	.42	.55	.73	.89	.98	1.06	1.13	1.19	1.28	1.29	1.44
Oct. 20	.18	.28	.43	.43	.43	.43	.43	.43	.43	.43	.43	.43
KENTUCKY												
Lexington Airport												
May 1	.16	.30	.40	.48	.50	.52	.52	.53	.60	.72	.74	.76
May 10	.21	.36	.43	.53	.57	.64	.72	.83	.97	1.02	1.15	1.20
May 20	.36	.54	.64	.67	.69	.70	.71	.73	.73	.73	.73	.73
May 26	.26	.38	.40	.42	.44	.44	.44	.44	.44	.44	.44	.44
May 27	.28	.43	.46	.50	.52	.58	.59	.59	.72	.92	.94	.94
June 2	.26	.41	.48	.54	.64	.66	.66	.66	.67	.69	.74	.78
June 5	.28	.40	.44	.46	.46	.46	.46	.46	.46	.46	.46	.46
July 1	.30	.42	.52	.60	.68	.70	.71	.72	.73	.74	.76	.76
July 3	.29	.33	.36	.38	.50	.54	.54	.54	.55	.55	.55	.55
July 29	.30	.32	.34	.36	.37	.38	.38	.38	.38	.40	.41	.41
Aug. 6	.30	.36	.38	.39	.41	.42	.42	.42	.42	.42	.42	.42
Aug. 21	.32	.44	.55	.60	.61	.82	1.09	1.12	1.12	1.15	1.42	1.44
Sept. 3	.18	.28	.36	.41	.45	.48	.52	.60	.63	.64	.64	.64
Oct. 2-3	.12	.20	.32	.38	.52	.52	.52	.60	.68	.73	.85	.94
Louisville Airport												
May 29	.22	.37	.51	.59	.60	.63	.67	.70	.72	.74	.74	.74
June 4	.31	.47	.58	.62	1.02	1.12	1.25	1.34	1.37	1.39	1.40	1.41
June 10	.34	.54	.69	.69	.69	.69	.69	.69	.69	.69	.69	.69
June 11	.17	.34	.46	.54	.59	.69	1.11	1.27	1.42	1.44	1.47	1.54
July 3	.44	.54	.61	.64	.77	.77	.77	.77	.77	.77	.77	.77
Sept. 1	.20	.32	.42	.46	.49	.49	.49	.50	.50	.50	.50	.50
LOUISIANA												
Alexandria Airport												
Jan. 14	.30	.41	.42	.44	.57	.65	.71	.88	.91	.91	.92	.92
Jan. 26	.29	.42	.50	.58	.82	.93	.93	.93	.93	.93	.93	1.05
Apr. 12	.37	.49	.50	.62	.76	.91	.95	1.05	1.15	1.21	1.29	1.32
Apr. 24	.26	.40	.43	.49	.63	.70	.77	.80	.82	.82	.82	.82
Apr. 27	.37	.71	.85	1.05	1.34	1.62	1.70	1.78	1.84	1.86	1.89	1.93
May 30	.27	.37	.38	.39	.40	.41	.42	.43	.43	.44	.45	.47
June 6	.28	.45	.48	.50	.52	.52	.52	.52	.52	.52	.52	.52
June 18	.50	.90	.98	1.27	1.50	1.65	1.68	1.70	1.70	1.70	1.72	1.76
June 19	.42	.64	.67	.72	.87	.95	.98	1.00	1.01	1.01	1.01	1.01
June 29	.18	.30	.32	.37	.39	.40	.40	.40	.43	.45	.54	.55
July 16	.41	.68	.71	.95	1.24	1.27	1.28	1.28	1.28	1.28	1.28	1.28
July 22	.23	.33	.36	.49	.64	.75	.87	.90	.90	.90	.91	.91
Sept. 5	.32	.53	.55	.58	.63	.64	.64	.65	.65	.65	.66	.68
Sept. 8	.25	.26	.26	.27	.27	.27	.28	.28	.28	.28	.28	.28
Sept. 9	.28	.39	.40	.41	.41	.41	.41	.41	.41	.41	.41	.41
Sept. 15	.19	.34	.38	.40	.52	.57	.57	.58	.62	.62	.63	.63
Oct. 20	.20	.36	.40	.45	.48	.50	.56	.62	.66	.68	.71	.72
Nov. 20	.17	.30	.32	.37	.43	.48	.51	.69	.79	.87	.91	.93
Baton Rouge AP												
Jan. 5	.25	.40	.50	.53	.63	.72	.82	.90	1.00	1.08	1.20	1.45
Jan. 15	.36	.51	.57	.64	.71	.78	.79	.83	.83	.83	.83	.83
Jan. 26	.18	.33	.40	.45	.65	.73	.78	.84	.90	.93	.95	.95
Mar. 31	.35	.58	.70	.77	.95	1.05	1.08	1.09	1.13	1.16	1.16	1.16
Apr. 6	.55	.97	1.21	1.35	1.52	1.60	1.62	1.66	1.71	1.71	1.71	1.72
Apr. 27	.52	.73	.92	1.00	1.50	1.95	2.35	2.80	3.10	3.80	4.60	4.80
June 9	.38	.51	.65	.78	1.20	1.55	1.80	1.85	1.85	1.85	1.85	1.85
June 9	.22	.35	.45	.52	.60	.96	1.12	1.15	1.15	1.15	1.15	1.15
June 10	.25	.46	.60	.68	.78	.90	.96	.96	.96	.96	.96	.96
June 11	.16	.26	.30	.41	.46	.48	.49	.50	.50	.50	.50	.50
June 18	.26	.35	.47	.51	.55	.75	.85	.87	.88	.92	.95	.96
June 27	.20	.31	.41	.45	.46	.47	.55	.55	.55	.55	.58	.58
June 28	.43	.85	1.15	1.42	1.72	1.83	1.87	1.88	1.88	1.90	1.94	1.96
June 29	.22	.41	.48	.56	.81	.98	1.03	1.04	1.05	1.05	1.05	1.05
June 30	.38	.60	.73	.80	.84	.85	.90	.91	.91	.91	.91	.91
July 20	.17	.30	.40	.50	.60	.71	.71	.71	.71	.71	.71	.71
July 26	.19	.35	.45	.50	.50	.51	.51	.51	.51	.51	.51	.51
July 28	.23	.24	.26	.46	.47	.51	.56	.56	.56	.56	.56	.56
Aug. 19	.25	.40	.55	.68	.84	.99	1.11	1.12	1.12	1.12	1.12	1.12
Aug. 23	.14	.21	.30	.36	.54	.58	.60	.61	.61	.61	.64	.64
Aug. 26	.30	.50	.72	.90	1.25	1.37	1.40	1.41	1.43	1.43	1.44	1.44
Sept. 4	.23	.41	.52	.61	.74	.75	.77	.78	.79	.80	.83	.85
Sept. 5	.36	.52	.56	.62	.72	.76	.78	.79	.83	.86	.87	.87
Oct. 1	.24	.36	.47	.56	.84	1.25	1.38	1.52	1.67	1.67	1.67	1.72
Oct. 1	.36	.67	.86	.96	1.10	1.23	1.32	1.36	1.48	1.53	1.63	1.72
Oct. 17	.28	.41	.44	.50	.53	.68	.71	.76	.76	.76	.76	.76
Lake Charles AP												
Jan. 14	.25	.35	.40	.53	.55	.65	.65	.65	.65	.65	.65	.65
Feb. 20	.20	.30	.31	.32	.32	.33	.34	.38	.38	.39	.40	.40
Apr. 25	.20	.35	.36	.37	.38	.39	.40	.45	.45	.45	.45	.45
Apr. 27	.60	.78	.95	1.15	1.48	1.54	1.56	1.58	1.60	1.65	1.65	1.79
June 2	.19	.31	.33	.33	.35	.38	.43	.48	.50	.55	.63	.75

EXCESSIVE SHORT DURATION RAINFALL

YEAR 1962

Station and date	Maximum precipitation in inches (5 to 180 minutes)											
	5	10	15	20	30	45	60	80	100	120	150	180
LOUISIANA (Cont'd.)												
Lake Charles AP (Cont'd.)												
June 4	0.21	0.35	0.38	0.40	0.55	0.75	0.78	0.89	0.93	1.31	1.38	1.42
June 29	.33	.41	.41	.41	.41	.41	.41	.41	.41	.41	.41	.41
Aug. 24	.50	1.00	1.05	1.32	1.42	1.50	1.57	1.58	1.58	1.58	1.58	1.58
Aug. 29	.45	.80	1.03	1.34	2.00	2.40	3.35	3.96	4.85	5.41	6.13	6.68
Oct. 14	.50	.80	.82	.91	.92	.95	.95	.95	1.00	1.01	1.05	1.05
Oct. 29	.25	.42	.48	.51	.51	.51	.51	.51	.51	.51	.54	.57
Dec. 28	.16	.32	.40	.55	.75	.88	.95	1.00	1.16	1.25	1.29	1.38
New Orleans Audubon Pk.												
Feb. 19	.32	.57	.62	.65	1.05	1.40	1.60	1.60	1.61	1.62	1.62	1.63
Apr. 25	.53	.93	1.09	1.29	1.53	1.56	1.60	1.60	1.62	1.62	1.62	1.63
Apr. 26	.43	.85	.95	1.40	1.58	1.63	1.69	1.74	1.77	1.78	1.78	1.79
June 5	.55	.79	.90	1.04	1.30	1.31	1.31	1.32	1.32	1.32	1.32	1.32
June 8	.37	.63	.70	.92	1.39	1.65	1.89	1.96	1.96	1.96	1.96	1.96
June 9	.23	.34	.36	.40	.41	.41	.41	.41	.41	.42	.42	.42
June 11	.38	.52	.55	.57	.60	.62	.62	.62	.62	.62	.62	.63
June 13	.38	.60	.74	.94	1.02	1.03	1.04	1.04	1.04	1.04	1.05	1.05
June 15	.30	.34	.34	.35	.36	.37	.37	.37	.37	.37	.37	.37
June 19	.75	1.23	1.35	1.60	1.84	1.95	2.00	2.01	2.06	2.10	2.11	2.12
July 20	.54	.83	.90	1.09	1.45	1.70	1.83	1.84	1.88	1.93	1.97	1.98
July 29	.35	.53	.58	.59	.60	.61	.61	.62	.62	.63	.67	.74
Aug. 3	.29	.51	.54	.55	.61	.63	.65	.65	.65	.65	.65	.65
Aug. 4	.51	.92	1.01	1.05	1.11	1.12	1.13	1.13	1.13	1.13	1.14	1.14
Aug. 29	.25	.48	.60	.78	.98	1.02	1.04	1.16	1.16	1.17	1.17	1.17
Sept. 4	.30	.55	.76	.84	1.02	1.02	1.04	1.04	1.04	1.04	1.04	1.04
Sept. 6	.45	.77	.92	1.17	1.56	1.56	1.60	1.63	1.63	1.63	1.65	1.67
Sept. 10	.22	.40	.49	.57	.65	.69	.74	.86	.88	.89	.89	.89
Sept. 11	.21	.33	.36	.37	.49	.50	.54	.73	.75	.76	.76	.77
Oct. 9	.17	.30	.39	.45	.59	.59	.59	.59	.59	.59	.59	.59
Nov. 20	.18	.36	.40	.46	.50	.57	.60	.62	.62	.62	.62	.62
Shreveport AP												
Jan. 14	M	M	M	M	M	M	.81	.88	.96	.99	1.07	1.08
Mar. 30	.27	.45	.50	.69	.73	.74	.78	.91	.94	.94	.98	1.00
Apr. 24	.23	.40	.42	.45	.55	.68	.94	1.14	1.30	1.40	1.48	1.50
Apr. 27	.21	.27	.32	.41	.72	.80	.86	.88	.89	.90	.92	.92
Apr. 30	.13	.24	.26	.37	.50	.70	.92	1.05	1.14	1.17	1.23	1.29
June 25	.35	.43	.50	.56	.65	.72	.83	.96	.99	1.02	1.08	1.14
June 25	.40	.58	.78	.96	1.12	1.15	1.15	1.15	1.15	1.15	1.15	1.15
Aug. 22	.52	.72	.76	.81	.95	.97	.98	.99	1.01	1.02	1.02	1.02
Aug. 30	.25	.45	.50	.55	.60	.60	.60	.60	.60	.60	.60	.60
MAINE												
Caribou Airport												
July 9	.28	.56	.70	.87	.97	1.02	1.33	1.37	1.45	1.47	1.47	1.47
Portland Airport												
Aug. 20	.24	.30	.30	.36	.43	.48	.48	.48	.48	.48	.48	.49
Oct. 6	.11	.21	.30	.40	.54	.76	.94	1.03	1.38	1.60	1.90	2.06
MARYLAND												
Baltimore												
Jan. 15	.26	.30	.31	.32	.35	.44	.45	.46	.46	.47	.48	.48
Apr. 29	.20	.35	.40	.50	.52	.55	.58	.58	.60	.65	.68	.68
May 24	.55	.74	.78	.79	.79	.80	.90	.90	.94	1.05	1.05	1.05
May 26-27	.22	.32	.35	.40	.50	.55	.57	.59	.60	.61	.64	.64
June 5	.32	.40	.43	.45	.49	.50	.50	.50	.50	.50	.50	.51
July 23	.55	.95	1.07	1.12	1.33	1.35	1.36	1.36	1.36	1.36	1.36	1.36
Oct. 4	.28	.46	.50	.55	.59	.62	.73	.80	.88	.95	1.02	1.07
Baltimore Airport												
Jan. 15	.28	.36	.38	.39	.40	.42	.45	.45	.46	.46	.46	.46
Apr. 29	.55	.57	.57	.57	.70	.70	.72	.73	1.15	1.20	1.22	1.23
May 23	.25	.37	.53	.65	.92	.96	.99	1.04	1.07	1.10	1.11	1.11
May 24	.23	.35	.37	.38	.40	.42	.52	.53	.53	.57	.57	.57
July 21	.25	.50	.51	.51	.58	.70	.70	.70	.70	.70	.70	.77
Aug. 6	.40	.62	.74	.87	1.42	1.53	1.60	1.63	1.63	1.63	1.63	1.63
Oct. 4	.26	.30	.42	.44	.50	.65	.70	.85	.95	1.05	1.15	1.19
Frederick Airport												
May 23	.20	.37	.57	.72	.72	.72	.72	.72	.72	.75	.75	.75
June 26	.25	.40	.58	.72	.75	.75	.75	.75	.75	.75	.75	.75
Oct. 4	.19	.38	.38	.40	.41	.41	.41	.41	.41	.41	.41	.41
MASSACHUSETTS												
Boston Airport												
July 9	.23	.37	.42	.51	.60	.66	.77	.84	.84	.84	.84	.84
Aug. 1	.30	.46	.52	.55	.55	.55	.55	.55	.55	.55	.55	.55
Oct. 6	.24	.37	.41	.46	.55	.69	.79	.87	1.01	1.14	1.21	1.38
Nantucket Airport												
June 25	.26	.29	.29	.35	.42	.45	.52	.79	.82	.82	.83	.84
July 9	.28	.46	.65	.70	.79	.89	.97	1.01	1.02	1.02	1.02	1.06
Nov. 22	.20	.31	.37	.45	.53	.68	.79	.82	.89	1.05	1.06	1.07
Pittsfield Airport												
Aug. 7	.16	.32	.40	.50	.63	.88	1.04	1.22	1.26	1.28	1.32	1.35
Aug. 20	.25	.35	.38	.53	.70	.71	.71	.71	.71	.71	.71	.71
Sept. 1	.23	.45	.53	.57	.59	.62	.62	.62	1.01	1.06	1.06	1.06
MICHIGAN												
Alpena Airport												
May 20	.27	.44	.49	.53	.60	.60	.60	.60	.60	.60	.60	.60
June 5	.18	.35	.43	.46	.49	.57	.65	.69	.71	.74	.74	.75
Aug. 25	.19	.27	.33	.42	.62	.70	.70	.74	.74	.75	.77	.77
Detroit Airport												
Apr. 30	.18	.23	.31	.35	.43	.72	.82	.88	.94	.95	.97	.97
June 11	.19	.30	.35	.38	.50	.54	.60	.71	1.00	1.05	1.12	1.23
June 24	.30	.52	.56	.57	.60	.62	.63	.63	.63	.73	.80	.80
June 30	.34	.54	.63	.78	.85	.88	.88	.88	.88	.88	.88	.88
July 20	.25	.41	.46	.50	.53	.58	.62	.67	.69	.71	.72	.72
Aug. 4	.25	.41	.43	.44	.45	.56	.62	.62	.62	.64	.64	.64
Aug. 25	.18	.27	.41	.47	.49	.49	.49	.49	.49	.49	.51	.52
Sept. 14	.18	.32	.36	.37	.38	.38	.39	.53	.63	.63	.63	.66
Detroit (M. Wayne Co. AP)												
Apr. 30	.35	.57	.62	.72	1.02	1.23	1.33	1.34	1.49	1.50	1.53	1.55
May 29	.25	.42	.47	.50	.63	.65	.65	.66	.67	.67	.67	.67
June 18	.26	.29	.29	.29	.35	.38	.40	.40	.40	.40	.40	.40

M Missing

Station and date	Maximum precipitation in inches (5 to 180 minutes)											
	5	10	15	20	30	45	60	80	100	120	150	180
MICHIGAN (Cont'd.)												
Detroit (M. Wayne Co. AP (Cont'd.)												
June 25	0.25	0.37	0.40	0.43	0.45	0.45	0.45	0.45	0.45	0.45	0.45	0.47
July 11	.40	.70	1.00	1.35	1.70	2.05	2.06	2.07	2.10	2.10	2.10	2.10
July 20	.25	.48	.52	.59	.66	.68	.70	.75	.78	.78	.78	.78
Aug. 6	.20	.35	.45	.48	.51	.54	.59	.60	.60	.60	.60	.60
Aug. 16	.25	.28	.30	.30	.30	.30	.30	.30	.30	.30	.30	.30
Sept. 13	.30	.40	.42	.42	.48	.50	.55	.65	.67	.70	.74	.75
Detroit (Willow Run AP)												
June 11	.30	.35	.37	.48	.57	.60	.62	.62	.62	.62	.62	.62
June 23	.25	.33	.34	.38	.42	.61	.65	.65	.65	.65	.65	.65
July 11	.35	.70	.77	.80	.87	.89	.91	.92	.93	.93	.93	.93
July 20	.23	.33	.35	.38	.41	.43	.45	.47	.48	.50	.50	.70
Aug. 6	.26	.32	.33	.36	.38	.40	.43	.45	.47	.48	.49	.49
Aug. 12	.27	.44	.46	.47	.49	.49	.49	.49	.49	.49	.49	.49
Aug. 20	.18	.33	.35	.36	.37	.37	.37	.37	.37	.38	.39	.39
Sept. 13	.21	.34	.45	.52	.57	.59	.61	.65	.72	.75	.79	.79
Sept. 17	.29	.34	.35	.36	.37	.37	.37	.37	.37	.37	.37	.40
Escanaba												
May 29	.30	.60	.61	.64	.66	.67	.68	.69	.78	.85	.97	.97
June 18	.25	.49	.74	.84	.86	.86	.86	.86	.87	.94	.94	.94
Aug. 6	.43	.45	.46	.46	.46	.46	.46	.48	.48	.48	.48	.48
Flint Airport												
Apr. 30	.38	.67	.71	.83	.86	.90	.96	1.07	1.16	1.23	1.26	1.26
May 30	.38	.68	.72	.79	.80	.81	.81	.82	.83	.83	.83	.83
June 5	.35	.36	.37	.39	.40	.40	.40	.40	.40	.40	.41	.45
June 11	.32	.53	.60	.73	.97	1.17	1.17	1.17	1.17	1.17	1.23	1.23
June 18	.20	.30	.31	.33	.55	.58	.64	.69	.70	.71	.75	.76
June 25	.32	.45	.46	.49	.64	.66	.66	.66	.66	.66	.66	.66
July 21	.50	.88	.96	.99	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Sept. 4	.20	.30	.32	.33	.36	.38	.38	.38	.38	.38	.38	.38
Sept. 10	.18	.33	.38	.43	.48	.48	.48	.48	.53	.61	.61	.61
Sept. 13	.33	.40	.42	.43	.47	.49	.51	.57	.61	.63	.72	.72
Grand Rapids AP												
Apr. 28	.17	.31	.41	.59	.67	.82	.87	.92	.92	.92	.92	.92
Sept. 13	.30	.50	.63	.64	.65	.65	.66	.66	.66	.66	.66	.66
Sept. 13	.24	.42	.62	.73	1.05	1.43	1.48	1.72	1.73	1.73	1.73	1.75
Lansing Airport												
June 18	.34	.38	.40	.41	.41	.41	.41	.61	.65	.66	.71	.73
Sept. 13	.26	.36	.38	.46	.52	.54	.56	.57	.58	.58	.59	.59
Marquette												
June 18	.16	.30	.35	.35	.35	.37	.38	.38	.38	.38	.38	.38
Aug. 3	.28	.37	.39	.44	.46	.55	.60	.69	.79	.86	.92	.92
Sept. 13	.70	1.05	1.10	1.15	1.16	1.16	1.20	1.30	1.32	1.32	1.32	1.32
Muskegon Airport												
Sept. 13	.40	.71	1.00	1.14	1.30	1.50	1.56	1.56	1.56	1.56	1.56	1.56
Sault Ste. Marie AP												
May 13	.40	.45	.48	.52	.58	.60	.69	.80	.82	.88	.91	.91
May 13	.17	.33	.38	.42	.61	.73	.87	1.02	1.13	1.20	1.31	1.38
MINNESOTA												
Duluth Airport												
May 18	.28	.40	.45	.50	.56	.58	.61	.65	.69	.73	.77	.78
May 22	.30	.46	.49	.51	.56	.60	.67	.78	.88	.98	1.13	1.19
June 21	.12	.22	.32	.42	.53	.62	.70	.71	.71	.71	.71	.71
June 28	.26	.48	.62	.66	.80	.83	.84	.87	.89	.91	.93	.93
Aug. 5	.22	.35	.42	.45	.49	.58	.59	.64	.66	.66	.67	.78
International Falls AP												
June 18	.25	.31	.35	.44	.52	.58	.61	.64	.68	.70	.80	.89
July 7	.28	.50	.55	.65	.98	1.10	1.24	1.36	1.40	1.50	1.56	1.91
July 9	.32	.42	.44	.48	.52	.55	.72	.80	.91	.96	.96	.96
July 10	.33	.35	.37	.42	.43	.46	.49	.50	.88	.91	.92	.93
Aug. 23	.13	.25	.30	.30	.50	.52	.54	.65	.65	.65	.65	.65
Sept. 8	.40	.65	.80	.86	.96	.97	1.04	1.11	1.19	1.25	1.25	1.25
Minneapolis AP												
May 12	.34	.57	.75	.89	1.09	1.32	1.50	1.74	1.98	2.04	2.23	2.27
May 13	.38	.57	.60	.61	.62	.62	.63	.86	.90	.91	.92	.92
May 29	.26	.36	.39	.39	.40	.40	.40	.40	.40	.40	.40	.40
July 6	.34	.42	.47	.51	.52	.55	.55	.55	.55	.55	.55	.55
July 19	.19	.32	.41	.47	.53	.57	.58	.59	.66	.72	.80	.81
Aug. 22	.21	.34	.39	.43	.43	.43	.43	.43	.43	.43	.43	.43
Rochester Airport												
Apr. 30	.24	.33	.41	.43	.58	.75	.91	1.14	1.17	1.19	1.21	1.21
May 10	.16	.30	.46	.60	.70	.86	1.02	1.13	1.14	1.14	1.14	1.14
June 17	.25	.43	.47	.53	.75	.75	.75	.75	.75	.75	.87	.87
July 7	.53	.95	1.11	1.18	1.20	1.24	1.29	1.32	1.37	1.43	1.46	1.47
July 19	.22	.34	.43	.50	.59	.65	.71	.75	.80	.84	.88	.90
July 20	.22	.42	.51	.55	.66	.68	.68	.69	.69	.69	.69	.69
Aug. 31	.26	.36	.42	.56	.72	.75	.80	.86	.92	.95	.97	.99
Saint Cloud AP												
May 13	.16	.32	.40	.42	.45	.50	.59	.70	.74	.79	.82	.85
May 18	.52	.90	1.11	1.31	1.45	1.46	1.47	1.47	1.48	1.50	1.72	1.72
May 22	.35	.63	.72	.93	1.41	1.85	1.90	2.14	2.25	2.31	2.38	2.42
June 17	.33	.52	.55	.59	.65	.70	.74	.78	.79	.79	.79	.79
Aug. 6	.50	.59	.61	.64	.67	.71	.75	.78	.78	.78	.78	.78
Aug. 11	.50	.81	.85	.94	1.07	1.15	1.16	1.16	1.16	1.16	1.31	1.31
Sept. 16	.15	.22	.26	.35	.52	.68	.75	.81	.87	.90	.90	.90
MISSISSIPPI												
Jackson Airport												
Jan. 14	.18	.30	.35	.40	.51	.58	.63	.69	.78	.82	.90	.92
Jan. 26	.25	.35	.54	.58	.82	.92	.95	1.05	1.15	1.25	1.40	1.56
Feb. 22	.37	.54	.67	.75	.87	.90	.95	.96	.97	1.06	1.08	1.08
Mar. 25	.15	.24	.37	.40	.40	.43	.46	.49	.56	.56	.56	.63
Apr. 5	.22	.29	.31	.41	.52	.70	.97	1.14	1.21	1.39	1.53	1.58
Apr. 11	.49	.82	.95	1.10	1.76	1.92	1.92	1.92	1.98	2.35	2.98	3.27
Apr. 27	.20	.37	.39	.41	.46	.54	.64	.72	.78	.81	.87	.95
July 13	.26	.41	.45	.58	.65	.70	.75	.77	.78	.78	.78	.79
Aug. 3	.30	.60	.62	.67	.77	.77	.77	.77	.77	.78	.83	.83
Aug. 19	.45	.56	.59	.60	.60	.60	.60	.60	.60	.60	.60	.60
Sept. 14	.40	.67	.90	.96	.97	.99	1.06	1.41	1.50	1.51	1.60	1.61

EXCESSIVE SHORT DURATION RAINFALL

Station and date	Maximum precipitation in inches (5 to 180 minutes)											
	5	10	15	20	30	45	60	80	100	120	150	180
MISSISSIPPI (Cont'd.)												
Jackson Airport (Cont'd.)												
Nov. 11	0.20	0.32	0.38	0.47	0.53	0.57	0.62	0.64	0.65	0.65	0.65	0.65
Meridian Airport												
Jan. 26	.23	.42	.47	.53	.72	.75	.77	.80	.86	.88	.93	.98
Mar. 31	.41	.67	.73	.87	1.07	1.37	1.53	2.17	2.52	2.62	2.70	3.06
June 25	.61	.75	.76	.79	.80	.80	.80	.80	.81	.83	.83	.83
July 29	.52	.97	1.22	1.38	1.55	1.77	1.77	1.77	1.77	1.77	1.87	1.87
Vicksburg												
Jan. 14	.28	.47	.81	.86	.99	1.13	1.18	1.20	1.21	1.21	1.23	1.24
Feb. 27	.25	.33	.37	.38	.39	.40	.41	.41	.41	.41	.42	.42
Mar. 31	.24	.32	.35	.43	.51	.56	.58	.71	.74	.74	.77	.78
Apr. 11	.37	.70	1.02	1.46	1.67	2.43	2.57	2.78	3.78	3.98	4.20	4.38
Apr. 24	.33	.50	.71	.78	.94	.96	.97	.97	.98	.98	.98	.99
Apr. 27	.15	.26	.40	.43	.54	.64	.71	.95	1.00	1.20	1.41	1.51
Apr. 30	.14	.26	.34	.48	.60	.78	.79	.83	.87	.91	.98	1.10
June 29	.23	.40	.49	.54	.56	.57	.57	.57	.57	.57	.57	.57
Oct. 16	.18	.32	.37	.41	.42	.49	.50	.50	.50	.50	.50	.50
Oct. 20	.18	.29	.41	.44	.58	.78	.98	1.05	1.12	1.25	1.27	1.27
Nov. 11	.21	.40	.50	.54	.57	.61	.68	.68	.68	.68	.68	.68
MISSOURI												
Kansas City Airport												
May 20	.24	.48	.58	.67	.79	.97	1.06	1.24	1.40	1.50	1.94	1.99
June 6	.32	.57	.75	.85	.92	.94	.95	.95	.95	.95	.95	.95
July 5	.48	.86	1.05	1.38	1.60	1.71	1.77	1.79	1.82	1.83	1.85	1.85
July 8	.19	.35	.47	.55	.58	.59	.59	.59	.68	.68	.68	.68
July 11	.30	.48	.56	.82	1.30	1.44	1.45	1.46	1.46	1.46	1.46	1.46
July 20	.27	.42	.58	.82	1.00	1.17	1.29	1.38	1.41	1.45	1.49	1.53
Aug. 5	.24	.36	.47	.53	.59	.71	.77	.90	.97	1.02	1.06	1.06
Aug. 24	.12	.22	.34	.38	.54	.60	.64	.68	.70	.72	.85	1.03
Sept. 4	.22	.41	.60	.80	1.04	1.12	1.24	1.42	1.49	1.56	1.60	1.60
Sept. 14	.17	.32	.40	.50	.62	.74	.74	.74	.74	.74	.74	.74
Sept. 14	.20	.38	.52	.65	.82	.98	1.08	1.16	1.28	1.28	1.28	1.28
St. Joseph Airport												
May 18-19	.25	.40	.44	.50	.67	.70	1.02	1.26	1.36	1.50	1.56	1.56
May 19	.60	1.10	1.30	1.70	2.35	3.23	3.98	4.57	5.14	5.24	5.49	5.55
May 28	.40	.60	.76	.90	1.07	1.12	1.19	1.43	1.49	1.54	1.59	1.92
June 3	.27	.30	.33	.35	.45	.57	.67	.67	.67	.67	.67	.67
June 6	.25	.45	.60	.74	.82	.88	.89	.91	.92	.92	.92	.92
June 22	.30	.50	.54	.55	.57	.66	.67	.72	.77	.79	.84	.85
June 29	.25	.40	.48	.55	.60	.60	.60	.60	.64	.65	.65	.65
July 20	.16	.28	.41	.50	.75	1.00	1.12	1.14	1.15	1.16	1.18	1.20
July 30	.26	.48	.49	.50	.50	.52	.54	.55	.55	.55	.55	.55
Aug. 30	.21	.25	.36	.38	.39	.39	.39	.39	.39	.39	.39	.39
Sept. 24	.14	.27	.33	.34	.50	.63	.80	.83	1.02	1.08	1.15	1.23
Oct. 15	.43	.57	.63	.68	.70	.70	.70	.70	.70	.70	.70	.70
St. Louis Airport												
May 10	.23	.43	.46	.46	.47	.55	.55	.55	.55	.55	.55	.55
June 7-8	.38	.48	.66	.76	.79	.83	.85	.86	.88	.88	.88	.88
June 11	.29	.55	.65	.66	.67	.67	.67	.67	.67	.67	.67	.67
June 24	.39	.66	.83	1.01	1.11	1.15	1.18	1.20	1.20	1.20	1.20	1.20
July 3	.29	.30	.30	.31	.58	.59	.60	.60	.60	.61	.62	.62
July 5	.28	.46	.64	.73	.87	1.05	1.16	1.29	1.34	1.42	1.48	1.51
July 6	.26	.37	.45	.51	.67	.69	.84	.85	.89	.90	.90	.90
Aug. 4	.21	.39	.49	.54	.64	.65	.66	.66	.66	.66	.66	.66
Aug. 24	.29	.52	.67	.76	.80	.80	.89	.90	.91	.94	.98	1.01
Springfield Airport												
Apr. 22	.22	.39	.46	.53	.67	.81	.91	.97	1.04	1.10	1.17	1.21
May 27	.24	.38	.54	.55	.64	.91	1.00	1.02	1.04	1.09	1.11	1.11
May 29	.19	.29	.38	.48	.53	.57	.58	.62	.74	.83	.89	.95
June 18	.40	.70	.92	1.03	1.22	1.28	1.33	1.38	1.38	1.38	1.39	1.40
Sept. 14	.45	.84	1.00	1.10	1.26	1.50	1.66	1.96	2.04	2.06	3.30	3.70
MONTANA												
Billings Airport						None						
Glasgow Airport												
July 1	.22	.31	.32	.33	.37	.38	.39	.63	.67	.69	.69	.69
July 13	.30	.42	.58	.78	.87	.97	1.04	1.09	1.12	1.16	1.20	1.45
Aug. 8	.50	.60	.66	.66	.66	.66	.66	.66	.66	.66	.66	.66
Great Falls Airport						None						
Havre Airport												
June 12	.22	.40	.50	.58	.73	.79	.80	.80	.80	.80	.80	.80
June 12	.30	.56	.80	.83	.85	.86	.86	.86	.86	.86	.86	.86
Helena Airport												
June 13	.20	.34	.45	.48	.53	.53	.53	.54	.55	.55	.66	.94
Kalispell Airport						None						
Missoula Airport						None						
NEBRASKA												
Grand Island AP												
May 10	.21	.32	.40	.51	.55	.56	.58	.58	.58	.58	.58	.58
June 23	.31	.55	.70	.79	.82	.83	.85	.85	.85	.85	.85	.85
July 4	.25	.44	.54	.60	.75	.91	1.11	1.26	1.30	1.38	1.39	1.41
July 11	.37	.74	.90	1.00	1.19	1.28	1.35	1.36	1.37	1.38	1.40	1.43
July 13	.18	.33	.42	.57	.72	.98	.98	1.00	1.00	1.00	1.00	1.00
July 27	.40	.70	.87	.88	.88	.88	.88	.89	.89	.89	.89	.89
Aug. 2	.25	.39	.40	.42	.47	.52	.57	.59	.59	.59	.59	.59
Lincoln												
May 25	.24	.34	.49	.55	.60	.64	.79	.91	1.03	1.09	1.24	1.43
June 22	.37	.49	.56	.60	.61	.62	.63	.64	.67	.71	.77	.77
July 3	.18	.27	.35	.37	.38	.39	.39	.39	.39	.39	.39	.39
July 11	.32	.46	.51	.55	.57	.58	.71	.75	.76	.80	.95	1.04
July 19	.24	.36	.45	.48	.61	1.03	1.08	1.19	1.22	1.32	1.34	1.35
July 29	.20	.32	.37	.45	.48	.49	.50	.50	.50	.50	.75	.77
Aug. 9	.38	.56	.62	.63	.66	.70	.72	.72	.72	.72	.72	.72
Aug. 23	.23	.37	.49	.59	.69	.80	.94	.98	1.08	1.12	1.17	1.19
Aug. 30	.24	.37	.50	.60	.80	1.16	1.48	1.64	1.75	1.86	1.94	2.03
Norfolk Airport												
May 20	.26	.32	.35	.37	.38	.40	.40	.40	.40	.62	.63	.63
June 6	.30	.55	.59	.62	.68	.71	.74	.77	.81	.84	.86	.89

Station and date	Maximum precipitation in inches (5 to 180 minutes)											
	5	10	15	20	30	45	60	80	100	120	150	180
NEBRASKA (Cont'd.)												
Norfolk Airport (Cont'd.)												
June 16	0.33	0.50	0.63	0.65	0.66	0.69	1.07	1.10	1.12	1.12	1.12	1.12
June 29	.30	.42	.48	.65	.95	.98	1.06	1.12	1.14	1.14	1.14	1.14
July 7	.16	.32	.47	.49	.50	.50	.51	.79	.80	.80	.80	.80
North Platte AP												
May 14	.26	.44	.49	.57	.60	.61	.98	1.00	1.00	1.00	1.00	1.00
May 28	.33	.45	.60	.77	1.00	1.30	1.42	1.68	1.68	1.68	1.69	1.75
May 29	.35	.53	.76	.82	.89	.96	1.02	1.13	1.13	1.13	1.13	1.18
June 20	.35	.37	.43	.46	.52	.61	.65	.70	.70	.75	.75	.75
July 11	.35	.70	.80	.92	.96	.98	1.05	1.11	1.13	1.14	1.14	1.14
July 13	.20	.28	.38	.45	.62	.64	.64	.65	.66	.66	.66	.66
July 16	.27	.46	.50	.58	.68	.74	.79	.93	.96	.98	.98	.98
Sept. 16	.22	.36	.38	.40	.41	.42	.42	.43	.44	.44	.44	.46
Omaha Airport												
May 22	.45	.53	.55	.55	.55	.55	.55	.55	.55	.55	.55	.55
May 25	.31	.38	.46	.50	.51	.51	.51	.51	.51	.51	.51	.51
June 6	.16	.26	.35	.36	.41	.42	.44	.44	.53	.55	.55	.55
July 11	.35	.52	.68	.88	1.02	1.13	1.15	1.18	1.21	1.21	1.21	1.21
July 19	.22	.40	.45	.46	.47	.47	.51	.62	.70	.70	.70	.70
July 21	.33	.63	.75	.79	1.09	1.13	1.41	1.66	1.74	1.77	1.82	1.83
July 27	.31	.61	.65	.70	.75	.84	.94	1.09	1.12	1.14	1.18	1.21
Aug. 30	.20	.35	.50	.59	.60	.69	.71	.80	.81	1.04	1.30	1.36
Sept. 4	.24	.45	.47	.50	.68	.69	.70	.73	.73	.73	.73	.73
Sept. 14	.16	.32	.41	.53	.60	.60	.62	.62	.62	.62	.62	.62
Sept. 30	.20	.37	.50	.63	.69	.71	.74	.77	.79	.82	.85	.87
Scottsbluff AP												
May 27	.23	.30	.34	.37	.39	.40	.40	.40	.41	.41	.41	.42
June 5	.22	.42	.52	.56	.60	.62	.62	.63	.64	.64	.64	.64
July 9	.22	.34	.44	.49	.52	.52	.52	.52	.52	.52	.52	.52
July 13	.16	.27	.35	.42	.48	.57	.63	.71	.79	.80	.80	.80
July 26	.27	.36	.55	.61	.63	.65	.70	.71	.72	.72	.72	.72
Valentine AP												
May 15	.15	.30	.31	.34	.35	.35	.36	.40	.40	.43	.46	.46
May 16	.25	.38	.40	.46	.53	.62	.80	.86	.99	1.04	1.04	1.04
May 27	.20	.35	.37	.39	.45	.55	.60	.68	.77	.85	1.03	1.05
May 28	.25	.48	.70	.75	.83	.85	1.06	1.19	1.21	1.24	1.39	1.49
June 6	.25	.40	.42	.45	.49	.51	.55	.65	.66	.67	.70	.70
June 20	.22	.33	.35	.42	.49	.54	.64	.68	.69	.69	.69	.69
July 2	.20	.30	.34	.38	.40	.42	.42	.42	.42	.42	.42	.42
July 12	.20	.33	.36	.38	.43	.48	.52	.58	.62	.64	.66	.70
July 13	.24	.31	.35	.42	.45	.48	.50	.53	.55	.56	.57	.58
Aug. 9	.15	.25	.29	.31	.50	.74	.75	.75	.75	.75	.75	.75
Oct. 6	.19	.30	.32	.36	.40	.42	.43	.46	.48	.49	.53	.54
NEVADA												
Elko Airport						None						
Ely Airport						None						
Reno Airport						None						
Winnemucca Airport						None						
NEW HAMPSHIRE												
Concord Airport												
June 19	.28	.55	.55	.55	.55	.55	.55	.55	.67	.67	.67	.67
NEW JERSEY												
Atlantic City AP												
June 24	.27	.40	.54	.66	.76	.81	.83	.85	.85	.85	.85	.85
Aug. 7	.18	.35	.43	.44	.46	.47	.47	.47	.47	.47	.47	.47
Aug. 9	.30	.52	.72	.86	1.34	1.49	1.50	1.50	1.50	1.50	1.50	1.53
Aug. 28	.22	.38	.48	.69	.86	1.28	1.66	1.96	2.10	2.15	2.29	2.81
Oct. 9	.26	.45	.56	.61	.64	.66	.68	.68	.68	.68	.68	.68
Newark Airport												
May 24	.23	.39	.45	.46	.47	.47	.47	.47	.47	.47	.47	.47
June 24	.18	.23	.31	.44	.49	.52	.56	.59	.60	.63	.73	.80
June 26	.45	.75	.89	.90	.97	1.00	1.00	1.00	1.00	1.00	1.00	1.00
July 23	.30	.35	.40	.44	.55	.67	.68	.68	.68	.68	.68	.68
Aug. 16	.37	.58	.65	.70	.73	.75	.83	.83	.83	.83	.83	.83
Aug. 17	.28	.30	.33	.42	.55	.55	.55	.55	.60	.62	.66	.68
Oct. 5	.15	.28	.35	.43	.58	.79	.97	1.18	1.22	1.36	1.60	1.66
Nov. 10	.27	.31	.38	.40	.44	.55	.60	.65	.80	.93	1.08	1.20
Trenton												
June 11-12	.16	.31	.39	.42	.46	.46	.46	.62	.73	.85	.95	.97
June 12	.14	.24	.33	.41	.47	.49	.50	.50	.51	.51	.52	.53
June 23	.17	.31	.43	.47	.47	.57	.61	.61	.62	.64	.65	.65
June 24	.18	.33	.45	.47	.51	.51	.51	.52	.52	.52	.52	.52
July 23	.37	.42	.43	.45	.47	.50	.52	.52	.52	.53	.53	.53
Aug. 9	.27	.50	.68	.81	1.08	1.47	1.78	1.83	1.84	1.87	2.10	2.40
Aug. 28	.28	.50	.72	.81	1.00	1.16	1.41	1.71	1.89	2.16	2.31	2.44
Sept. 2	.20	.34	.45	.56	.77	1.08	1.28	1.54	1.63	1.72	1.78	1.80
Sept. 27	.12	.23	.32	.40	.59	.78	.93	1.11	1.22	1.35	1.42	1.49
Dec. 6	.20	.32	.39	.44	.54	.73	.85	.93	.98	1.03	1.08	1.12
NEW MEXICO												
Albuquerque AP												
July 30	.14	.25	.35	.39	.45	.47	.48	.61	.72	.72	.72	.72
Raton Airport												
June 25	.33	.57	.64	.76	.97	1.08	1.28	1.33	1.33	1.34	1.41	1.43
Aug. 20	.15	.29	.36	.43	.49	.52	.56	.62	.66	.70	.82	.87
Sept. 19	.35	.68	.76	.87	.99	1.06	1.12	1.15	1.22	1.29	1.31	1.31
Roswell Airport												
June 11	.28	.53	.66	.78	.85	.88	.89	.89	.89	.89	.89	.89
July 26	.22	.43	.55	.60	.74	.82	.88	.89	.91	.94	1.31	1.37
Aug. 31	.18	.22	.36	.40	.41	.42	.46	.47	.47	.47	.47	.47
Sept. 24	.30	.56	.82	.93	1.03	1.22	1.38	1.40	1.44	1.45	1.45	1.45
NEW YORK												
Albany Airport												
May 31	.28	.29	.30	.31	.31	.31	.31	.32	.32	.32	.35	.35
July 9	.23	.36	.40	.52	.57	.62	.68	.69	.70	.70	.70	.70
July 26	.25	.33	.34	.34	.34	.34	.34	.34	.34	.34	.34	.34

EXCESSIVE SHORT DURATION RAINFALL

Station and date	Maximum precipitation in inches (5 to 180 minutes)											
	5	10	15	20	30	45	60	80	100	120	150	180
NEW YORK (Cont'd.)												
Albany Airport (Cont'd.)												
Aug. 6	0.36	0.72	0.86	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87
Sept. 1	.29	.41	.50	.55	.57	.62	.62	.62	.62	.62	.62	.62
Sept. 10	.30	.48	.58	.60	.65	.66	.68	.71	.73	.76	.80	.82
Binghamton Airport												
Oct. 12	.22	.37	.58	.68	.72	.83	1.03	1.14	1.28	1.78	1.97	2.24
Buffalo Airport												
May 23	.25	.45	.50	.69	.71	.92	.94	.95	.98	.99	.99	.99
July 23	.15	.30	.32	.35	.40	.42	.43	.46	.47	.48	.48	.48
New York												
June 24	.28	.52	.59	.76	.80	.86	.89	.89	.91	1.06	1.21	1.27
Nov. 10	.25	.28	.32	.34	.37	.41	.46	.56	.63	.73	.83	1.06
Aug. 17	.23	.35	.45	.58	.77	.88	.88	.89	.90	.92	.93	.94
New York Airport												
June 24	.35	.68	.71	.74	.81	.87	.91	.93	1.02	1.17	1.23	1.25
Aug. 7	.32	.51	.57	.58	.66	.72	.75	.82	.83	.83	.83	.83
Aug. 17	.23	.41	.55	.64	.84	.99	1.00	1.00	1.01	1.02	1.03	1.04
Rochester Airport												
May 23	.25	.35	.41	.50	.65	.80	.80	.80	.80	.80	.80	.80
Aug. 6	.30	.50	.70	.73	.74	.75	.75	.75	.75	.75	.75	.75
Syracuse Airport												
July 25	.18	.35	.39	.45	.53	.63	.64	.64	.68	.68	.68	.68
Aug. 5	.28	.39	.50	.56	.56	.62	.73	.73	.73	.73	.73	.73
NORTH CAROLINA												
Asheville												
June 5	.27	.43	.66	.78	.87	.87	.91	.92	.92	.92	.92	.92
June 23	.26	.50	.70	.82	.93	1.05	1.05	1.05	1.05	1.05	1.05	1.05
Aug. 7	.50	.82	.94	.97	.98	.98	.98	1.04	1.10	1.10	1.11	1.11
Aug. 13	.41	.56	.71	.77	.77	.77	.78	.86	1.00	1.02	1.02	1.02
Cape Hatteras												
Jan. 6	.25	.45	.48	.50	.55	.57	.58	.59	.59	.60	.60	.61
Mar. 12	.25	.45	.58	.66	.77	.83	1.17	1.30	1.47	1.59	1.70	1.80
Apr. 11	.26	.34	.56	.73	1.06	1.51	1.81	2.05	2.55	2.66	2.74	2.97
Apr. 13	.19	.29	.32	.43	.60	.73	.79	.85	1.00	1.04	1.14	1.17
June 14	.23	.33	.35	.35	.35	.35	.35	.36	.36	.36	.45	.55
June 14	.18	.34	.38	.55	.80	1.13	1.30	1.48	1.64	1.71	1.74	1.77
June 29	.19	.27	.45	.60	.66	.86	.96	1.11	1.20	1.55	1.82	2.02
July 16	.29	.55	.64	.64	.64	.65	.69	.70	.72	.73	.73	.73
Aug. 26	.24	.45	.64	.70	.79	.90	.92	1.01	1.01	1.14	1.32	1.80
Aug. 27	.21	.39	.49	.60	.67	.73	.76	.78	.79	.80	.82	.86
Aug. 28	.55	.94	1.29	1.49	1.89	2.39	2.80	3.45	4.15	4.50	4.63	4.75
Sept. 22	.27	.45	.55	.70	.91	1.23	1.50	1.70	2.05	2.21	2.50	2.81
Sept. 27	.34	.66	.79	.94	1.12	1.17	1.23	1.30	1.39	1.47	1.54	1.65
Oct. 4	.30	.46	.49	.55	.74	.78	.89	.91	.93	1.00	1.03	1.04
Nov. 3	.30	.55	.86	.95	1.25	1.71	2.09	2.41	2.46	2.48	2.53	2.65
Nov. 9	.45	.75	.92	1.02	1.12	1.20	1.26	1.31	1.37	1.43	1.50	1.60
Charlotte Airport												
June 20	.17	.29	.42	.43	.47	.48	.49	.49	.49	.49	.51	.52
July 23	.42	.64	.76	.78	.94	.94	.94	.94	.94	.94	.94	.94
Aug. 15	.28	.40	.60	.80	.94	.96	.96	.96	.96	.96	.96	.96
Sept. 16	.30	.54	.66	.70	.82	.97	1.07	1.08	1.09	1.11	1.38	1.55
Nov. 9	.20	.34	.39	.41	.51	.54	.60	.64	.66	.67	.86	.95
Greensboro Airport												
Feb. 23	.19	.37	.47	.55	.71	.93	1.10	1.20	1.22	1.26	1.27	1.27
Mar. 31	.25	.36	.39	.45	.55	.62	.71	.77	.80	.85	.97	1.00
May 28	.17	.25	.37	.43	.47	.49	.55	.61	.66	.71	.78	.80
June 1	.22	.30	.47	.58	.69	.77	.79	.79	.79	.79	.79	.79
June 2	.22	.38	.60	.78	1.02	1.23	1.33	1.38	1.40	1.42	1.42	1.42
June 3	.22	.38	.52	.65	.73	.79	.82	.83	.88	.89	.89	.89
July 1	.28	.39	.47	.47	.48	.49	.49	.49	.50	.50	.50	.50
July 23	.19	.34	.35	.36	.39	.39	.39	.39	.40	.43	.43	.43
Nov. 9	.26	.36	.38	.38	.39	.44	.51	.56	.60	.69	.79	.85
Raleigh Airport												
Jan 6	.19	.22	.36	.43	.51	.59	.70	1.05	1.10	1.17	1.21	1.22
Mar. 31	.35	.57	.65	.70	.94	1.19	1.28	1.39	1.42	1.44	1.48	1.49
Apr. 8	.17	.33	.43	.46	.47	.48	.54	.58	.63	.66	.67	.77
Apr. 29	.42	.44	.44	.44	.53	.58	.59	.62	.62	.62	.62	.62
May 26	.33	.66	.72	.72	.73	.76	.77	.77	.77	.77	.77	.77
June 12	.20	.40	.42	.45	.60	.83	.94	1.10	1.38	1.44	1.74	1.85
June 20	.26	.33	.35	.40	.50	.51	.57	.60	.70	.76	.83	.85
June 26	.25	.45	.60	.75	.96	1.08	1.10	1.13	1.18	1.20	1.20	1.20
July 12	.60	1.05	1.11	1.17	1.28	1.36	1.43	1.50	1.74	2.00	2.00	2.00
July 21	.39	.52	.56	.60	.87	1.07	1.11	1.25	1.25	1.25	1.25	1.25
July 23	.25	.30	.31	.31	.33	.33	.34	.35	.35	.35	.35	.35
Aug. 6	.30	.47	.67	.72	.73	.76	.76	.77	.82	.86	.88	.88
Sept. 4	.25	.26	.26	.26	.28	.29	.29	.29	.29	.29	.29	.29
Sept. 16	.13	.26	.35	.40	.40	.40	.40	.41	.53	.61	.68	.71
Oct. 4	.25	.42	.44	.50	.53	.55	.56	.58	.60	.60	.63	.64
Wilmington Airport												
Jan. 6	.17	.34	.45	.52	.57	.60	.60	.60	.60	.60	.62	.64
Mar. 12	.23	.31	.35	.50	.58	.63	.71	.77	.79	.84	.85	.85
Apr. 11	.32	.52	.55	.59	.62	.64	.72	.82	.90	.95	1.07	1.15
Apr. 12	.32	.37	.38	.38	.39	.41	.41	.43	.43	.43	.43	.43
Apr. 12	.15	.24	.27	.36	.45	.65	.78	.95	1.03	1.13	1.15	1.15
May 9	.23	.45	.46	.48	.53	.55	.58	.62	.64	.67	.68	.69
June 14	.26	.33	.34	.37	.40	.40	.40	.40	.40	.40	.40	.40
June 14	.37	.73	.80	1.02	1.49	1.98	2.20	2.40	2.47	2.70	3.36	3.67
June 24	.43	.82	.95	1.04	1.09	1.23	1.32	1.33	1.34	1.36	1.36	1.36
June 26	.20	.40	.45	.60	.73	.95	1.09	1.14	1.14	1.14	1.14	1.14
June 27	.29	.49	.53	.67	.94	1.04	1.11	1.13	1.17	1.18	1.20	1.20
June 30	.16	.32	.38	.48	.60	.66	.75	.83	.97	1.00	1.17	1.36
July 2	.20	.31	.31	.31	.31	.31	.31	.31	.33	.42	.59	.61
July 4	.16	.28	.42	.48	.52	.71	.84	.92	.93	.95	1.20	1.21
July 25	.42	.62	.81	1.00	1.17	1.36	1.41	1.41	1.41	1.41	1.41	1.51
July 25	.35	.45	.47	.55	.57	.65	.81	.83	.84	.84	.85	.90
Aug. 18	.18	.32	.35	.51	.64	.64	.64	.64	.64	.64	.64	.64
Aug. 28	.18	.33	.37	.40	.63	.69	.69	.70	.75	.79	.80	.81
Sept. 5	.46	.85	.92	1.05	1.26	1.37	1.41	1.44	1.46	1.49	1.52	1.52
Sept. 17	.23	.34	.40	.50	.52	.52	.52	.52	.52	.52	.52	.52
Sept. 27	.25	.43	.49	.57	.65	.72	.79	.88	.92	.94	.97	1.07
Nov. 9	.37	.71	.78	.90	1.15	1.26	1.42	1.49	1.58	1.64	1.67	1.68
NORTH DAKOTA												
Bismarck Airport												
June 12	0.17	0.31	0.36	0.40	0.45	0.50	0.55	0.61	0.66	0.70	0.74	0.80
June 20	.26	.51	.55	.60	.64	.72	.73	.73	.73	.73	.73	.73
July 5	.21	.34	.43	.46	.56	.60	.68	.68	.68	.68	.68	.68
Devils Lake												
May 13	.18	.34	.39	.45	.64	.71	.81	.86	.88	1.04	1.12	1.18
Aug. 10	.18	.30	.45	.55	.85	1.01	1.04	1.07	1.11	1.19	1.35	1.43
Fargo Airport												
July 18	.14	.26	.36	.45	.61	.71	.75	.79	.86	.91	.95	.96
Aug. 10-11	.46	.80	.96	1.10	1.30	1.50	1.60	1.67	1.70	1.77	1.79	1.79
Williston												
June 14	.38	.70	.75	.87	1.06	1.17	1.18	1.18	1.18	1.18	1.18	1.18
June 22	.26	.34	.36	.40	.43	.45	.47	.48	.48	.48	.48	.48
July 6	.30	.40	.44	.50	.90	1.12	1.31	1.58	1.62	1.66	1.82	1.85
OHIO												
Akron Airport												
June 4	.30	.46	.49	.50	.50	.50	.50	.50	.50	.50	.50	.50
July 21	.35	.37	.38	.39	.39	.41	.41	.41	.41	.41	.41	.41
July 25	.36	.45	.49	.51	.56	.59	.62	.64	.65	.65	.65	.65
Aug. 6	.40	.52	.63	.63	.65	.65	.65	.65	.65	.65	.65	.65
Oct. 8	.28	.31	.33	.37	.37	.37	.37	.37	.37	.37	.66	.71
Oct. 16	.32	.62	.65	.70	.73	.75	.75	.76	.76	.76	.76	.78
Cincinnati Abbe Obs.												
May 1	.13	.25	.33	.40	.55	.66	.70	.88	.95	.96	1.00	1.15
May 26	.18	.34	.46	.49	.52	.56	.58	.63	.65	.66	.67	.67
May 27	.48	.73	.88	.93	1.00	1.01	1.01	1.01	1.01	1.01	1.01	1.01
Aug. 6	.20	.30	.37	.52	.57	.58	.58	.58	.58	.58	.58	.58
Cleveland Airport												
May 31	.26	.29	.42	.50	.56	.64	.64	.67	.67	.67	.67	.67
June 22-23	.19	.32	.41	.48	.59	.66	.67	.98	1.02	1.03	1.03	1.03
Oct. 16	.26	.33	.34	.36	.37	.42	.46	.48	.49	.50	.52	.52
Columbus Airport												
June 4	.16	.31	.41	.56	.57	.58	.61	.61	.61	.67	.69	.69
June 10	.21	.32	.36	.36	.36	.36	.36	.36	.36	.36	.36	.36
June 23	.43	.63	.68	.68	.68	.68	.68	.68	.68	.68	.68	.68
July 14	.22	.30	.52	.58	.68	.74	.76	.80	.80	.82	1.07	1.10
Aug. 4	.64	1.06	1.26	1.44	1.45	1.45	1.45	1.45	1.45	1.45	1.45	1.45
Sept. 14	.39	.48	.54	.58	.59	.61	.62	.64	.65	.70	.76	.81
Dayton Airport												
May 26	.22	.37	.39	.41	.43	.48	.50	.51	.51	.51	.51	.51
July 2	.30	.46	.68	.72	.74	.74	.74	.75	.82	.82	.84	.84
July 8	.36	.36	.37	.39	.39	.39	.39	.39	.39	.39	.39	.39
July 11	.34	.49	.54	.58	.63	.66	.73	.74	.77	.77	.77	.77
July 14	.28	.34	.37	.37	.37	.38	.39	.42	.44	.48	.48	.51
Mansfield Airport												
May 20	.25	.30	.45	.45	.45	.45	.45	.45	.45	.45	.45	.45
June 30	.30	.60	.90	1.09	1.22	1.65	1.77	1.77	1.77	1.77	1.77	1.91
July 25	.45	.85	1.20	1.24	1.34	1.35	1.39	1.39	1.39	1.39	1.39	1.39
Aug. 4	.30	.60	.80	.90	1.05	1.40	1.45	1.45	1.45	1.47	1.55	1.60
Aug. 8	.50	.58	.59	.59	.60	.60	.60	.60	.60	.60	.60	.60
Sandusky												
May 23	.34	.49	.54	.57	.60	.62	.64	.66	.66	.66	.66	.66
July 21	.27	.42	.42	.42	.42	.42	.42	.42	.42	.42	.42	.42
Aug. 7	.20	.27	.36	.53	.70	.71	.71	.72	.72	.72	.72	.72
Aug. 8	.22	.30	.35	.37	.40	.41	.41	.41	.46	.46	.46	.46
Oct. 8	.25	.40	.50	.67	.78	.80	.85	.91	.94	1.01	1.06	1.08
Toledo Airport												
June 10	.20	.39	.39	.39	.39	.39	.39	.39	.39	.39	.39	.39
June 11	.25	.40	.42	.50	.50	.50	.50	.72	.82	.82	.82	.82
July 8	.31	.43	.43	.44	.44	.44	.44	.44	.44	.44	.57	.57
July 20	.26	.33	.35	.40	.50	.50	.52	.55	.57	.57	.57	.57
July 22	.30	.55	.63	.70	.85	1.00	1.14	1.22	1.27	1.28	1.33	1.35
Aug. 6	.41	.48	.49	.53	.63	.65	.65	.65	.65	.65	.65	.65
Sept. 13	.22	.37	.45	.62	.70	.80	.81	.82	.82	.82	.82	1.15
Youngstown Airport												
May 31	.15	.30	.37	.48	.62	.65	.68	.84	.89	.90	.92	.92
June 23	.16	.27	.36	.40	.48	.55	.65	.69	.69	.69	.69	.69
July 8	.37	.45	.45	.45	.45	.45	.45	.45	.45	.45	.45	.45
Aug. 6	.29	.36	.62	.66	.70	.74	.80	.82	.85	.85	.85	.85
Sept. 4	.20	.40	.55	.57	.61	.61	.62	.62	.62	.62	.62	.62
OKLAHOMA												
Oklahoma City AP												
May 28	.25	.35	.37	.40	.53	.55	.55	.62	.67	.67	1.03	1.05
June 1	.25	.45	.50	.60	.67	.85	1.07	1.24	1.32	1.50	1.83	1.97
June 25	.19	.32	.34	.35	.37	.45	.48	.51	.51	.52	.54	.58
Aug. 31	.21	.36	.47	.56	.61	.86	.87	.96	1.00	1.00	1.03	1.37
Sept. 19	.21	.31	.35	.37	.39	.39	.40	.40	.40	.40	.41	.41
Oct. 17	.25	.35	.55	.58	.60	.60	.60	.60	.60	.60	.60	.60
Tulsa Airport												
May 28	.15	.26	.35	.43	.50	.53	.68	.72	.76	.78	.85	.95
June 1	.55	.95	1.10	1.25	1.59	2.10	2.30	2.40	2.47	2.61	2.71	2.81
July 10	.13	.21	.30	.38	.54	.63	.70	.77	.81	.83	.88	1.02
July 27	.25	.50	.61	.67	.73	.75	.75	.75	.75	.76	.78	.80
July 30	.26	.46	.63	.72	.73	.74	.74	.74	.74	.74	.74	.74
July 31	.40	.55	.57	.58	.60	.60	.60	.60	.60	.60	.60	.60
Aug. 31	.20	.30	.33	.50	.53	.64	.82	.93	.99	.99	.99	[illegible]
Sept. 3	.25	.50	.65	.75	1.15	1.45	1.75	2.30	2.57	2.62	2.71	2.83
Sept. 7	.15	.23	.35	.46	.55	.60	.65	.69	.70	.71	.75	.79
Sept. 15	.31	.60	.65	.87	1.11	1.50	1.75	2.00	2.22	2.28	2.32	2.37
Oct. 7	.18	.35	.42	.50	.62	.81	1.02	1.10	1.12	1.12	1.12	1.12
Oct. 15	.16	.25	.27	.42	.49	.50	.50	.50	.50	.50	.50	.50
OREGON												
Astoria Airport												
Sept. 10	.20	.30	.40	.47	.55	.58	.62	.65	.68	.69	.69	.69
Oct. 8	.30	.47	.77	1.00	1.13	1.24	1.40	1.50	1.60	1.90	[illegible]	[illegible]

EXCESSIVE SHORT DURATION RAINFALL

Station and date	Maximum precipitation in inches (5 to 180 minutes)											
	5	10	15	20	30	45	60	80	100	120	150	180
OREGON (Cont'd.)												
Astoria Airport (Cont'd.)												
Nov. 24	0.25	0.45	0.48	0.55	0.58	0.63	0.66	0.70	0.75	0.79	0.83	0.85
Nov. 25	.15	.30	.32	.33	.35	.40	.45	.50	.52	.62	.68	.72
Burns						None						
Eugene Airport						None						
Meacham Airport						None						
Medford Airport						None						
Pendleton Airport						None						
Portland						None						
Roseburg Airport						None						
Sexton Summit						None						
PACIFIC AREA												
Canton Island AP												
Apr. 9	.15	.30	.32	.40	.50	.56	.61	.61	.61	.62	.62	.62
Apr. 21	.16	.32	.42	.54	.56	.59	.60	.62	.63	.64	.65	.69
Apr. 28 *	.30	.59	.61	.62	.62	.62	.62	.62	.62	.62	.62	.62
Apr. 29	.26	.41	.50	.65	.81	.95	1.01	1.02	1.02	1.03	1.05	1.07
May 11	.16	.32	.35	.48	.62	.72	.87	1.00	1.05	1.09	1.10	1.14
July 1	.26	.34	.34	.34	.34	.34	.34	.38	.38	.38	.38	.38
Sept. 16	.27	.47	.52	.56	.58	.58	.58	.58	.58	.58	.58	.58
Eniwetok Airport												
Apr. 9	.26	.34	.43	.55	.74	.82	.85	.93	.98	1.01	1.04	1.04
Apr. 22	.31	.45	.54	.55	.56	.56	.84	.98	.99	1.00	1.01	1.05
Apr. 29	.21	.30	.30	.31	.31	.32	.32	.33	.33	.36	.36	.37
May 18	.35	.55	.65	.81	.96	1.14	1.27	1.32	1.34	2.10	2.10	2.21
May 22	.25	.37	.55	.62	.83	.90	.92	.94	.94	.95	.95	.95
June 8	.28	.31	.39	.43	.56	.77	.93	1.01	1.04	1.05	1.09	1.11
Aug. 26	.17	.23	.30	.40	.42	.43	.43	.43	.43	.44	.45	.45
Sept. 16	.11	.21	.31	.40	.51	.53	.53	.53	.54	.54	.54	.54
Sept. 26	.16	.20	.32	.44	.45	.64	.65	.65	.65	.65	.65	.65
Sept. 30	.11	.18	.29	.37	.53	.65	.87	1.05	1.15	1.18	1.27	1.34
Oct. 10	.14	.22	.36	.46	.59	.77	.91	.94	.96	.98	1.04	1.10
Nov. 6	.20	.38	.50	.67	.98	1.34	1.35	1.37	1.39	1.40	1.42	1.42
Dec. 16	.30	.34	.39	.55	.56	.64	.67	1.05	1.08	1.11	1.20	1.20
Johnston Island AP												
Feb. 13 †	.23	.40	.46	.54	.67	.94	1.10	1.12	1.13	1.14	1.15	1.22
Koror												
Jan. 5	.28	.51	.64	.70	.94	1.14	1.27	1.34	1.37	1.38	1.38	1.38
Jan. 7	.22	.33	.34	.34	.36	.49	.49	.49	.49	.49	.79	.79
Jan. 13	.28	.29	.29	.30	.30	.30	.30	.30	.30	.50	.51	.51
Jan. 28	.15	.24	.33	.40	.45	.47	.55	.55	.55	.55	.57	.67
Jan. 29	.17	.30	.43	.51	.54	.59	.60	.60	.61	.62	.63	.64
Jan. 29	.19	.30	.42	.58	.71	.80	.87	.89	.91	.96	1.09	1.17
Jan. 29	.29	.36	.37	.37	.37	.37	.37	.38	.39	.39	.39	.39
Jan. 30	.33	.50	.54	.55	.58	.61	.66	.89	1.02	1.04	1.11	1.13
Feb. 2	.18	.24	.30	.43	.49	.51	.53	.65	.73	.87	.88	.89
Feb. 2	.23	.44	.52	.55	.56	.56	.56	.56	.56	.56	.57	.57
Feb. 18	.22	.39	.44	.46	.67	.73	1.05	1.18	1.18	1.20	1.20	1.35
Feb. 21	.22	.36	.40	.42	.53	.59	.66	.77	.82	.88	.93	.93
Mar. 6	.18	.30	.35	.39	.42	.42	.42	.42	.42	.42	.42	.42
Mar. 14	M	M	M	M	.57	.68	.72	.75	.79	.85	.85	.85
Apr. 5	.15	.30	.38	.50	.67	.86	.94	1.01	1.04	1.04	1.06	1.06
Apr. 5	.24	.41	.60	.74	.95	1.05	1.10	1.18	1.23	1.24	1.36	1.36
Apr. 26	.16	.27	.41	.50	.59	.62	.63	.63	.63	.63	.63	.63
May 1	.27	.54	.70	.70	.70	.70	.70	.70	.70	.70	.70	.70
May 10	.38	.62	.80	.94	.98	1.00	1.04	1.19	1.26	1.32	1.48	1.54
May 11	.42	.47	.48	.48	.48	.52	.52	.52	.52	.52	.52	.52
May 15	.18	.25	.36	.46	.55	.82	.94	1.12	1.18	1.29	1.43	1.47
May 19	.29	.48	.56	.62	.67	.89	.99	1.02	1.55	1.68	1.68	1.70
May 20	.17	.29	.37	.41	.46	.46	.46	.46	.46	.46	.46	.46
May 27	.19	.33	.48	.63	.84	.99	1.06	1.10	1.11	1.11	1.11	1.11
June 4	.30	.41	.47	.52	.57	.63	.65	.65	.66	.67	.68	.68
June 9	.20	.38	.52	.65	.84	1.01	1.07	1.08	1.09	1.09	1.11	1.11
June 13	.17	.30	.36	.41	.49	.57	.64	.75	.78	.85	.92	.96
June 21	.17	.30	.36	.39	.44	.49	.49	.50	.51	.51	.51	.51
June 26	.25	.39	.50	.70	.72	.72	.75	.75	.75	.81	.92	.92
June 29	.30	.43	.49	.51	.52	.52	.52	.53	.54	.56	.61	.71
July 4	.49	.74	.99	1.18	1.61	2.14	2.50	3.11	3.59	3.78	4.07	4.22
July 7	.36	.64	.74	M	M	M	M	1.14	1.14	1.14	1.15	1.27
July 7	M	M	M	M	.91	1.02	1.12	1.21	1.28	1.41	1.74	2.06
July 7	.25	.41	.48	.56	.72	.93	1.39	1.58	1.73	1.91	2.45	2.88
July 13	.36	.46	.48	.52	.52	.52	.52	.52	.52	.52	.52	.52
July 14	.20	.36	.44	.48	.54	.55	.55	.55	.63	.75	.77	.77
July 21	.31	.48	.53	.57	.63	.80	.86	.87	.87	.87	.87	.87
July 22	.35	.58	.75	.95	1.32	1.72	2.33	2.82	3.09	3.21	4.18	4.26
July 23	.26	.45	.61	.65	.67	.73	.89	.93	.96	.96	.97	.98
July 25	.17	.26	.35	.40	.41	.41	.41	.53	.67	.69	.73	.80
July 26	.27	.33	.36	.37	.38	.38	.39	.47	.60	.66	.71	.79
Aug. 2	.41	.60	.69	.80	.87	1.01	1.34	1.75	1.97	2.29	2.55	2.58
Aug. 2	.40	.59	.64	.82	1.04	1.20	1.28	1.43	1.69	1.84	2.25	3.22
Aug. 9	.37	.66	.87	1.19	1.32	1.32	1.40	1.40	1.82	2.20	2.22	2.22
Aug. 13	.17	.26	.33	.41	.45	.46	.46	.46	.46	.46	.46	.46
Aug. 21	.24	.45	.66	.82	1.09	1.23	1.26	1.29	1.47	1.50	1.50	1.50
Aug. 23	.30	.47	.52	.52	.52	.52	.54	.59	.59	.59	.61	.61
Sept. 2	.18	.27	.41	.44	.44	.44	.45	.45	.45	.45	.45	.45
Sept. 4	.34	.60	.84	1.16	1.47	1.60	1.64	1.67	1.68	1.70	1.71	1.73
Sept. 5	.16	.26	.36	.45	.60	.79	.88	.94	1.13	1.26	1.45	1.48
Sept. 8	.21	.31	.40	.42	.44	.44	.44	.44	.44	.44	.44	.44
Sept. 11	.21	.35	.41	.46	.56	.76	.92	.96	1.03	1.07	1.10	1.10
Sept. 12	.37	.66	1.02	1.19	1.37	1.47	1.58	1.69	1.73	1.78	1.94	2.03
Sept. 14	.45	.63	.69	.75	.75	.75	.76	.77	.85	.98	1.20	1.28
Sept. 14	.20	.32	.41	.47	.62	.69	.74	.78	.81	.83	.86	.86
Sept. 19	.16	.25	.37	.45	.61	.83	.84	.84	.84	.84	.84	.84
Oct. 15	.26	.51	.71	.90	1.14	1.25	1.46	1.63	1.71	1.82	1.86	2.00
Oct. 18	.17	.32	.44	.52	.77	1.02	1.05	1.12	1.21	1.22	1.22	1.22
Oct. 20	.24	.35	.39	.41	.41	.42	.42	.44	.53	.61	.62	.62
Nov. 25	.29	.38	.39	.40	.46	.49	.54	.56	.60	.61	.63	.70
Nov. 26	.40	.69	.89	.92	.92	.92	.92	.92	.92	.92	.92	.92
Dec. 4	.20	.32	.38	.43	.47	.49	.49	.50	.56	.56	.66	.85
Dec. 5	.36	.71	.84	1.08	1.25	1.45	1.45	1.45	1.45	1.45	1.49	2.26
Dec. 5	.16	.29	.39	.45	.56	.67	.73	.77	.81	.82	.87	.90
Dec. 6	.17	.33	.48	.54	.68	.95	1.13	1.20	1.26	1.27	1.29	1.35
Dec. 6	.20	.34	.51	.61	.88	1.17	1.45	1.65	1.90	2.02	2.14	2.21

Station and date	Maximum precipitation in inches (5 to 180 minutes)											
	5	10	15	20	30	45	60	80	100	120	150	180
PACIFIC AREA (Cont'd.)												
Koror (Cont'd.)												
Dec. 19	0.18	0.31	0.36	0.38	0.38	0.40	0.41	0.41	0.41	0.41	0.41	0.41
Dec. 23	.31	.55	.69	.73	.80	.88	.92	.92	.92	.93	1.19	1.22
Dec. 31	.36	.55	.64	.69	.69	.69	.69	.86	.94	.94	.94	1.18
Majuro Airport												
Jan. 1	.22	.37	.44	.49	.49	.49	.57	.57	.58	.69	.73	.73
Jan. 2	.25	.37	.37	.37	.37	.37	.37	.37	.37	.45	.48	.49
Jan. 4	.29	.39	.47	.49	.49	.49	.49	.49	.51	.51	.51	.52
Jan. 10	.27	.31	.37	.44	.47	.47	.47	.48	.53	.53	.54	.54
Jan. 16	.17	.30	.40	.50	.57	.77	1.08	1.30	1.47	1.75	2.07	2.39
Jan. 28	.20	.28	.36	.37	.41	.45	.48	.51	.55	.59	.63	.65
Jan. 29	.17	.27	.35	.42	.66	.66	.66	.66	.66	.66	.74	.78
Jan. 30	.17	.26	.35	.48	.65	.80	.88	.94	.95	.96	1.16	1.16
Jan. 30	.25	.45	.49	.49	.49	.49	.69	.69	.69	.69	.69	.69
Feb. 3	.25	.39	.53	.70	.82	.88	.92	.93	.93	.93	.93	.93
Feb. 4	.26	.30	.30	.30	.35	.35	.35	.35	.35	.35	.35	.35
Feb. 27	.20	.31	.38	.48	.57	.63	.63	.63	.63	.63	.63	.63
Mar. 9	.22	.30	.31	.31	.31	.36	.36	.36	.36	.36	.36	.36
Mar. 10	.24	.35	.39	.39	.39	.39	.40	.40	.40	.40	.40	.40
Mar. 15	.17	.31	.33	.47	.61	.75	.76	.79	.79	.80	.80	.80
Mar. 30	.20	.31	.39	.46	.55	.57	.62	.82	1.07	1.15	1.37	1.62
Apr. 4	.20	.36	.48	.55	.56	.56	.56	.56	.56	.56	.63	.63
Apr. 14	.20	.30	.33	.41	.52	.53	.53	.53	.54	.55	.56	.57
May 13	.30	.53	.69	.85	1.09	1.24	1.32	1.34	1.35	1.36	1.68	2.41
May 14	.26	.41	.60	.81	1.12	1.47	1.66	1.91	2.23	2.45	2.62	2.78
May 19	.16	.28	.40	.51	.76	1.05	1.11	1.18	1.19	1.31	1.43	1.46
May 21	.26	.42	.56	.71	.96	1.10	1.22	1.40	1.56	1.65	1.74	1.91
June 18	.16	.30	.44	.52	.61	.69	.75	.75	.76	.84	.84	.84
July 3	.25	.26	.26	.26	.30	.30	.30	.31	.32	.32	.32	.32
July 9	.20	.35	.38	.51	.55	.55	.55	.56	.56	.56	.56	.56
July 10	.33	.39	.40	.45	.62	.88	.88	.88	.88	.91	.91	1.13
July 14	.23	.33	.33	.33	.34	.34	.34	.34	.34	.34	.36	.36
July 15	.14	.24	.36	.37	.37	.37	.41	.43	.43	.43	.43	.43
July 15	.15	.25	.34	.39	.54	.77	.93	1.00	1.08	1.11	1.14	1.15
July 22	.18	.35	.43	.51	.62	.74	.77	.81	.92	.92	.94	.95
Aug. 15	.15	.29	.37	.40	.42	.42	.42	.42	.42	.42	.42	.42
Aug. 22	.22	.37	.51	.61	.76	.84	.86	.86	.86	.86	.86	.86
Aug. 22	.18	.30	.46	.57	.72	.80	.80	.94	1.12	1.21	1.22	1.22
Aug. 23	.27	.44	.53	.70	.76	.81	.82	.82	.83	.90	.99	1.05
Aug. 28	.26	.46	.60	.60	.60	.68	.68	.68	.68	.68	.68	.68
Aug. 28	.27	.37	.39	.41	.44	.46	.46	.46	.46	.46	.52	.58
Sept. 1	.18	.26	.36	.43	.53	.63	.69	.73	.80	1.04	1.14	1.21
Sept. 2	.20	.30	.33	.35	.37	.43	.48	.52	.52	.53	.53	.53
Sept. 5	.17	.25	.34	.42	.50	.56	.57	.60	.63	.64	.65	.65
Sept. 17	.25	.37	.49	.58	.81	1.13	1.42	1.50	1.55	1.61	1.86	2.14
Sept. 20	.19	.33	.38	.42	.42	.42	.42	.42	.42	.42	.45	.46
Sept. 22	.22	.34	.47	.55	.61	.76	.77	.80	.80	.81	.99	1.34
Sept. 24	.26	.31	.32	.32	.32	.32	.32	.32	.34	.34	.34	.34
Sept. 24	.15	.27	.38	.46	.53	.56	.58	.58	.58	.58	.58	.58
Sept. 27	.47	.75	.95	1.13	1.52	1.93	2.00	2.13	2.25	2.36	2.65	2.79
Oct. 1	.20	.36	.45	.48	.48	.48	.48	.48	.48	.48	.61	.68
Oct. 5	.25	.43	.62	.71	.72	.76	.82	.83	.83	.86	.88	.88
Oct. 8	.19	.26	.39	.47	.51	.52	.52	.52	.52	.52	.52	.54
Oct. 12	.21	.38	.53	.65	.88	.93	.93	.93	.93	.93	1.01	1.06
Oct. 24	.32	.52	.61	.64	.67	.75	.77	.80	.81	.87	.91	.93
Oct. 25	.16	.22	.30	.40	.50	.72	.83	.84	.84	.84	.89	.90
Nov. 1	.17	.29	.38	.39	.40	.40	.40	.40	.41	.41	.49	.49
Nov. 6	.24	.31	.38	.44	.56	.57	.59	.61	.61	.61	.61	.62
Nov. 6	.29	.48	.59	.61	.61	.63	.63	.63	.63	.63	.63	.65
Nov. 7	.35	.56	.56	.56	.56	.56	.57	.57	.57	.57	.57	.58
Nov. 7	.19	.33	.39	.46	.56	.56	.59	.85	.91	.94	.96	.96
Nov. 12	.21	.36	.57	.75	.92	1.03	1.11	1.37	1.41	1.46	1.54	1.61
Nov. 15	.21	.27	.42	.46	.51	.51	.51	.51	.51	.51	.51	.51
Nov. 20	.15	.25	.33	.43	.59	.77	.86	1.26	1.46	1.65	1.91	2.04
Nov. 27	.22	.43	.49	.52	.53	.53	.54	.67	.68	.75	.81	.85
Nov. 30	.26	.44	.45	.46	.46	.48	.48	.48	.51	.53	.54	.55
Nov. 30	.22	.32	.46	.54	.72	.86	.88	.88	.88	.88	.89	.90
Dec. 1	.17	.30	.39	.43	.46	.48	.48	.48	.54	.64	.65	.66
Dec. 13	.31	.49	.69	.90	1.27	1.84	2.41	3.14	3.64	3.90	4.01	4.04
Dec. 14	.15	.28	.35	.37	.42	.42	.42	.42	.42	.43	.45	.45
Dec. 17	.33	.44	.49	.57	.71	.73	.73	.73	.73	.73	.73	.73
Dec. 28	.27	.37	.56	.72	.97	1.24	1.39	1.40	1.41	1.42	1.44	1.44
Dec. 29	.21	.29	.35	.36	.36	.37	.42	.47	.47	.47	.47	.50
Ponape												
Jan. 3	.22	.33	.40	.40	.40	.40	.41	.41	.44	.49	.50	.55
Jan. 3	.24	.34	.46	.56	.72	.76	.77	.77	.80	.82	.83	.91
Jan. 4	.33	.53	.71	.86	.99	1.03	1.05	1.07	1.10	1.13	1.15	1.17
Jan. 4	.37	.57	.91	1.08	1.21	1.21	1.21	1.21	1.21	1.36	1.36	1.37
Jan. 4	.29	.50	.72	.84	.96	.98	.99	1.00	1.00	1.00	1.00	1.00
Jan. 5	.26	.30	.40	.50	.61	.82	1.04	1.29	1.39	1.48	1.66	1.84
Jan. 11	.27	.47	.57	.67	.75	.77	.78	.78	.85	.85	.86	.86
Jan. 12	.20	.30	.39	.39	.39	.47	.47	.47	.70	.73	.77	.79
Jan. 17	.25	.43	.48	.50	.51	.57	.64	.79	.84	.90	.98	1.08
Jan. 23	.22	.33	.36	.40	.47	.48	.53	.66	.66	.79	.79	.91
Jan. 24	.17	.33	.45	.59	.83	1.03	1.17	1.25	1.40	1.45	1.60	2.21
Jan. 25	.44	.66	.80	.93	1.11	1.15	1.16	1.16	1.16	1.16	1.16	1.16
Feb. 10	.24	.35	.48	.52	.70	.88	.90	.95	.97	.97	.97	.97
Feb. 11	.21	.30	.34	.36	.38	.39	.39	.40	.43	.51	.52	.53
Feb. 11	.23	.30	.33	.37	.67	.82	.93	1.19	1.34	1.50	1.77	2.03
Feb. 11	.22	.43	.55	.67	.71	.72	.73	.73	.73	.73	.73	.73
Feb. 12	.21	.41	.55	.59	.64	.70	.76	1.04	1.14	1.18	1.22	1.60
Feb. 12	.28	.30	.35	.37	.40	.41	.42	.47	.48	.48	.53	.53
Feb. 16	.25	.36	.41	.49	.63	.83	1.08	1.19	1.22	1.26	1.28	1.55
Feb. 17	.21	.39	.41	.41	.43	.44	.44	.59	.79	.79	1.00	1.00
Feb. 28	.36	.49	.54	.55	.58	.90	.98	1.03	1.26	1.34	1.44	1.63
Mar. 16	.19	.30	.46	.51	.53	.57	.59	.64	.66	.67	.73	.89
Apr. 5	.15	.27	.39	.49	.63	.63	.63	.65	.67	.67	.67	.67
Apr. 11	.17	.27	.40	.53	.63	.66	.70	.71	.72	.73	.73	.73
Apr. 15	.23	.45	.48	.48	.48	.56	.63	.63	.64	.64	.64	.64
Apr. 15	.31	.42	.48	.55	.65	.72	.81	.87	.87	.92	1.47	1.52
Apr. 21	.26	.28	.29	.29	.29	.32	.33	.33	.37	.38	.38	.38
Apr. 23	(.21)	.30	.43	.53	.62	.77	.77	.77	.78	.78	.78	.78
Apr. 25	.23	.39	.46	.49	.51	.54	.54	.55	.58	.63	.83	.85
May 8	.22	.34	.52	.65	.90	1.01	1.03	1.03	1.03	1.04	1.04	1.06
May 9	.34	.61	.73	.74	.74	.76	.76	.77	.95	.98	.98	.98
May 12	.20	.30	.39	.42	.45	.48	.51	.52	.52	.52	.52	.52
May 21	.34	.49	.68	.70	.82	.95	.95	.96	1.17	1.17	1.18	1.30
May 23	.30	.44	.53	.64	.69	.99	1.33	1.53	1.57	1.63	1.70	1.72
May 25	.31	.46	.47	.47	.47	.47	.49	.49	.49	.49	.61	1.01
May 26	.18	.34	.46	.50	.54	.66	.70	.75	.76	.76	.76	.76
May 27	.26	.47	.49	.49	.49	.50	.52	.53	.66	.67	.73	.75
May 28	.22	.37	.46	.53	.60	.66	.67	.67	.67	.67	.75	.81
May 29	.19	.28	.31	.47	.67	.85	1.01	1.02	1.04	1.05	1.05	1.05
June 8	.26	.44	.55	.62	.71	.75	.75	.82	.91	.97	1.12	1.12

* Clock trouble - trace incomplete
† No record March 10 - October 31
M Missing

( ) Estimated Data

EXCESSIVE SHORT DURATION RAINFALL

YEAR 1962

Station and date	Maximum precipitation in inches (5 to 180 minutes)											
	5	10	15	20	30	45	60	80	100	120	150	180
PACIFIC AREA (Cont'd.)												
Ponape (Cont'd.)												
June 9	0.30	0.54	0.69	0.91	1.10	1.41	1.73	1.79	1.83	1.84	1.87	1.90
June 23	.33	.44	.48	.49	.70	.70	.75	.90	.90	.90	.90	.90
July 5	.20	.34	.44	.52	.52	.52	.52	.68	.68	.68	.69	.69
July 6	.21	.35	.39	.40	.40	.40	.61	.69	.69	.75	.96	1.08
July 13	.21	.37	.44	.47	.59	.59	.59	.59	.59	.59	.59	.60
July 15	.23	.35	.46	.57	.66	.70	.77	.90	1.01	1.07	1.20	1.30
July 19	.18	.31	.42	.55	.56	.59	.59	.67	.69	.70	.71	.71
July 23	.24	.42	.48	.49	.50	.50	.55	.55	.57	.57	.71	.78
Aug. 1	.27	.32	.32	.34	.35	.36	.36	.36	.36	.36	.36	.36
Aug. 6	.29	.43	.45	.46	.47	.47	.47	.47	.47	.47	.47	.47
Aug. 12	(.15)	(.30)	(.43)	(.53)	(.83)	(.83)	(.83)	(.84)	(.87)	(.89)	(.93)	(.95)
Aug. 14	(.23)	(.37)	(.47)	(.53)	(.61)	(.61)	(.61)	(.61)	(.65)	(.69)	(.69)	(.69)
Aug. 15	.44	.84	1.17	1.48	2.10	2.50	2.52	2.56	2.59	2.60	2.63	2.64
Aug. 15	.36	.66	.83	.88	.93	1.01	1.27	1.31	1.31	1.32	1.33	1.39
Aug. 19	.16	.31	.40	.45	.66	.95	1.10	1.14	1.23	1.35	1.36	1.37
Aug. 31	.33	.55	.73	.81	.89	.89	.89	.90	.92	.96	.97	.97
Sept. 1	.31	.48	.58	.62	.68	.72	1.11	1.36	1.41	1.45	1.63	1.68
Sept. 2	.17	.29	.36	.40	.56	.59	.60	.63	.66	.67	.67	.67
Sept. 5	.22	.30	.47	.55	.81	.93	1.04	1.11	1.14	1.25	1.38	1.38
Sept. 13	.34	.57	.60	.60	.60	.60	.60	.60	.60	.60	.60	.60
Sept. 19	.42	.47	.48	.49	.50	.53	.63	.65	.68	.75	.78	.99
Sept. 19	.21	.38	.51	.56	.58	.58	.58	.59	.72	.72	.82	.87
Sept. 23	.13	.24	.33	.40	.56	.79	.96	1.05	1.06	1.06	1.09	1.14
Sept. 26	.26	.40	.55	.60	.73	.91	.92	.93	.93	.93	.93	.93
Sept. 29	.30	.53	.64	.72	.77	.95	.96	.97	.97	.97	.97	.97
Sept. 29	.25	.45	.61	.78	.93	1.23	1.63	1.87	2.19	2.48	2.69	2.87
Sept. 29	.28	.32	.47	.53	.62	.70	.78	.92	1.02	1.09	1.19	1.21
Oct. 4	.22	.31	.33	.34	.34	.37	.37	.37	.37	.37	.37	.38
Oct. 6	.32	.56	.67	.74	.89	1.07	1.30	1.45	1.45	1.45	1.45	1.45
Oct. 12	.37	.72	1.00	1.15	1.29	1.52	1.69	1.70	1.82	1.93	2.01	2.10
Oct. 16	.35	.55	.65	.74	.84	.88	.99	1.17	1.36	1.37	1.37	1.37
Oct. 17	.32	.51	.67	.70	.73	.76	.76	.76	.76	.76	.76	.76
Oct. 21	.19	.33	.43	.45	.48	.48	.48	.49	.51	.54	.54	.54
Oct. 24	.38	.61	.77	.95	1.18	1.50	1.58	1.71	1.79	1.83	1.86	1.91
Oct. 24	.21	.36	.43	.63	.85	1.04	1.15	1.72	1.98	2.14	2.20	2.23
Oct. 25	.19	.34	.42	.45	.50	.57	.63	.74	.86	.90	.91	1.03
Oct. 29	.17	.30	.39	.44	.50	.79	.80	.80	.80	.80	.80	.80
Nov. 2	.21	.31	.31	.31	.31	.31	.31	.31	.46	.58	.59	.68
Nov. 4	.31	.52	.65	.70	.77	.80	.82	.84	.89	.90	.93	.95
Nov. 6	.46	.81	1.02	1.07	1.09	1.11	1.15	1.19	1.27	1.31	1.40	1.49
Nov. 8	.21	.38	.45	.47	.50	.51	.59	.66	.68	.69	.72	.73
Nov. 9	.22	.34	.35	.37	.38	.44	.46	.63	.70	.73	.76	.77
Nov. 10	.20	.29	.35	.37	.48	.56	.57	.57	.65	.73	.73	.73
Nov. 10	.41	.56	.73	.86	.98	1.02	1.04	1.13	1.13	1.13	1.49	2.06
Nov. 14	.36	.52	.75	.90	.99	1.00	1.21	1.26	1.29	1.30	1.30	1.30
Nov. 15	.21	.28	.38	.52	.78	.91	1.06	1.18	1.26	1.28	1.30	1.30
Nov. 19	.40	.68	1.08	1.24	1.51	1.57	1.59	1.59	1.59	1.59	1.60	1.61
Nov. 21	.28	.39	.42	.42	.43	.46	.46	.48	.48	.55	.58	.59
Nov. 21	.22	.36	.37	.39	.39	.39	.44	.44	.45	.45	.45	.45
Nov. 22	.27	.49	.62	.65	.68	.89	1.03	1.13	1.24	1.31	1.35	1.51
Nov. 23	.29	.41	.57	.69	.76	.90	.98	1.04	1.04	1.05	1.06	1.09
Nov. 24	.24	.37	.46	.50	.52	.74	.76	.79	.81	.85	.89	.90
Nov. 27	.27	.34	.34	.34	.34	.34	.34	.34	.34	.34	.39	.41
Nov. 28	.25	.27	.28	.32	.47	.63	.64	.64	.64	.66	.67	.67
Nov. 29	.33	.58	.75	.81	.85	.85	.85	.85	.85	.85	.85	.85
Dec. 4	.20	.32	.37	.55	.74	.84	.87	.91	1.15	1.15	1.15	1.20
Dec. 10	.23	.33	.38	.43	.47	.52	.52	.52	.52	.52	.52	.52
Dec. 14	.36	.55	.61	.65	.67	.68	.68	.68	.68	.68	.68	.75
Dec. 16	(.25)	(.36)	(.51)	(.64)	(.76)	(1.03)	(1.07)	(1.10)	(1.25)	(1.27)	(1.32)	(1.48)
Truk Airport												
Jan. 4	.21	.29	.35	.37	.53	.56	.58	.58	.61	.71	.71	.76
Jan. 4	.38	.55	.65	.79	1.07	1.44	1.54	1.62	1.64	1.68	1.72	1.82
Jan. 9	.22	.34	.35	.35	.35	.35	.35	.35	.35	.35	.35	.35
Jan. 11	.35	.60	.78	.91	1.03	1.24	1.50	1.67	1.81	1.88	1.99	2.00
Mar. 19	.45	.83	1.02	1.05	1.09	1.16	1.48	2.02	2.24	2.37	2.78	3.31
Mar. 19	.26	.45	.54	.55	.61	.63	.93	1.07	1.14	1.17	1.21	1.27
Mar. 31	.22	.37	.43	.51	.52	.52	.67	.69	.69	.69	.69	.69
Apr. 11	.13	.25	.32	.40	.51	.54	.75	.79	.80	.84	.85	.86
Apr. 13	.25	.45	.62	.75	1.21	1.48	1.66	1.85	2.09	2.13	2.15	2.16
May 15	.17	.29	.37	.40	.46	.47	.52	.64	.68	.68	.70	.96
May 18	.40	.72	1.03	1.08	1.29	1.82	2.28	2.73	2.86	2.89	2.95	3.24
May. 21	.30	.44	.53	.57	.61	.63	.67	.72	.74	.75	.76	.76
June 8	.32	.51	.56	.60	.63	.63	.63	.63	.63	.63	.63	.63
June 9	.37	.63	.81	.90	.93	.95	.95	.95	.99	1.01	1.01	1.01
June 14	.22	.37	.50	.65	.82	.85	.87	.89	.89	.89	.89	.89
June 14	.35	.60	.85	1.04	1.14	1.14	1.15	1.15	1.15	1.15	1.15	1.15
June 19	.37	.53	.77	.91	1.09	1.11	1.12	1.12	1.14	1.16	1.16	1.16
June 23	.21	.32	.33	.34	.34	.34	.34	.34	.34	.34	.34	.34
June 24	.23	.31	.35	.43	.49	.52	.52	.52	.52	.52	.52	.52
June 24	.30	.41	.61	.66	.79	.92	1.03	1.11	1.16	1.19	1.22	1.23
June 27	.24	.36	.38	.39	.41	.41	.41	.41	.41	.41	.41	.41
July 2	.30	.43	.48	.49	.53	.56	.56	.56	.57	.57	.57	.57
July 2	.23	.30	.32	.32	.32	.32	.32	.32	.32	.32	.32	.55
July 3	.28	.52	.65	.74	.89	.91	.92	.92	.92	.92	.92	.92
July 4	.20	.30	.41	.47	.53	.54	.54	.54	.54	.54	.54	.54
July 5	.39	.56	.81	.83	.84	.85	.89	.91	.95	.98	1.02	1.04
July 6	.28	.39	.46	.54	.72	.90	.96	1.19	1.27	1.33	1.40	1.43
July 7	.31	.42	.64	.80	.83	.87	.88	.89	.90	.90	.90	.90
July 10	.23	.31	.32	.32	.33	.33	.33	.33	.33	.33	.47	.49
July 13	.24	.43	.60	.70	.75	.77	.78	.78	.78	.78	.78	.78
July 15	.32	.61	.88	1.04	1.22	1.61	1.85	2.02	2.14	2.20	2.51	2.60
July 19	.24	.35	.41	.52	.53	.53	.53	.53	.53	.56	.76	.78
July 23	.25	.44	.57	.67	.76	.81	.81	.82	.94	.95	.95	.95
July 26	.30	.42	.48	.62	.75	.84	.93	1.01	1.08	1.12	1.13	1.13
July 29	.22	.43	.56	.61	.70	.77	.95	1.05	1.15	1.25	1.39	1.44
July 30	.63	1.20	1.64	2.05	2.94	4.24	5.24	5.84	6.13	6.19	7.34	8.30
Aug. 5	.41	.71	.82	.86	.87	.87	.96	.96	1.03	1.07	1.46	1.62
Aug. 7	.22	.44	.65	.69	.81	.89	.94	1.00	1.10	1.15	1.21	1.25
Aug. 10	.21	.39	.52	.58	.61	.63	.66	.66	.70	.71	.71	.71
Aug. 13	.45	.62	.68	.86	.98	1.31	1.43	1.59	1.68	1.69	1.71	1.71
Aug. 14	.41	.56	.63	.73	.92	1.05	1.16	1.19	1.20	1.20	1.20	1.20
Aug. 19	.21	.29	.35	.39	.45	.55	.61	.61	.62	.62	.64	.64
Aug. 21	.33	.52	.61	.68	.74	.83	.86	.90	.93	.93	.95	.95
Aug. 23	.20	.33	.43	.56	.82	.97	1.00	1.09	1.15	1.15	1.15	1.15
Aug. 25	.55	.73	.79	.92	.96	.98	1.00	1.00	1.02	1.03	1.04	1.04
Sept. 2	.40	.60	.91	1.12	1.37	1.75	2.08	2.41	2.44	2.49	2.54	2.61
Sept. 3	.34	.47	.56	.68	.74	.74	.78	.81	.81	.81	1.45	1.81
Sept. 3	.22	.30	.49	.54	.66	.67	.68	.75	.76	.76	.76	.81
Sept. 7	.36	.43	.54	.57	.64	.75	.75	.76	.81	.82	.82	.82
Sept. 9	.30	.39	.47	.54	.58	.63	.64	.65	.65	.65	.65	.65
Sept. 23	.24	.40	.43	.45	.51	.60	.61	.65	.69	.75	.82	.92
Sept. 24	.22	.33	.35	.35	.35	.35	.35	.35	.35	.35	.35	.35
Sept. 28	.26	.32	.34	.34	.34	.35	.36	.37	.39	.46	.49	.51
Sept. 29	.28	.48	.62	.73	.77	.79	.79	.80	.80	.81	.81	.81
PACIFIC AREA (Cont'd.												
Truk Airport (Cont'd.)												
Sept. 30	0.23	0.28	0.39	0.46	0.54	0.61	0.63	0.64	0.65	0.66	0.66	0.66
Oct. 21	.24	.42	.54	.59	.64	.64	.64	.64	.64	.64	.64	.64
Oct. 21	.16	.25	.37	.44	.50	.61	.64	.69	.78	.79	.81	[illegible]
Oct. 22	.44	.72	.97	1.09	1.36	1.51	1.54	1.77	1.94	2.26	2.37	2.66
Oct. 28	.20	.34	.38	.59	.62	.63	.63	.63	.64	.64	.68	.68
Oct. 31	.31	.40	.43	.47	.50	.51	.52	.52	.52	.52	.52	.63
Nov. 7	.31	.32	.33	.35	.41	.41	.41	.45	.45	.45	.51	.73
Nov. 8	.25	.40	.59	.73	.99	1.13	1.21	1.44	1.46	1.56	1.92	2.06
Nov. 8	.26	.38	.64	.74	.99	1.16	1.90	2.34	2.80	3.02	3.24	3.48
Nov. 9	.25	.36	.47	.48	.48	.48	.52	.53	.53	.54	.54	.85
Nov. 23	.37	.52	.69	.77	.79	.79	.79	.79	.79	.79	.94	.94
Nov. 27	.30	.40	.63	.81	1.05	1.15	1.19	1.19	1.21	1.23	1.40	1.50
Nov. 29	.28	.50	.62	.67	.67	.67	.76	.76	.76	.76	.77	.77
Nov. 30	.28	.43	.54	.54	.61	.61	.61	.61	.63	.78	1.17	1.19
Dec. 3	.19	.32	.44	.50	.50	.50	.60	.69	.69	.69	.71	.71
Dec. 16	.20	.33	.41	.47	.54	.61	.65	.80	.87	.88	.94	.97
Dec. 21	.27	.41	.43	.44	.45	.47	.47	.48	.50	.51	.51	.51
Dec. 22	.45	.78	1.09	1.13	1.18	1.68	2.07	2.14	2.87	2.87	2.90	2.90
Wake Island AP												
June 7	.26	.44	.55	.66	.84	.96	1.03	1.25	1.57	1.63	1.70	1.74
July 4	.29	.32	.32	.32	.32	.32	.32	.32	.32	.32	.32	.32
July 12	.34	.66	.96	1.22	1.55	1.90	1.92	1.92	1.92	1.93	1.93	2.00
July 16	.15	.24	.30	.37	.53	.67	.74	.81	.82	.83	.83	.84
July 24	.36	.64	.85	.93	1.00	1.00	1.00	1.00	1.00	1.01	1.06	1.20
Aug. 6	.22	.32	.35	.36	.43	.55	.57	.60	.64	.68	.71	.77
Aug. 7	.30	.60	.80	.93	1.15	1.35	1.37	1.38	1.38	1.38	1.39	1.39
Aug. 22	.17	.26	.37	.43	.44	.44	.46	.83	.83	.83	.83	.83
Aug. 27	.22	.33	.42	.48	.50	.75	.82	.82	.82	.82	.82	.82
Sept. 1	.27	.49	.50	.50	.50	.50	.50	.50	.50	.50	.50	.50
Sept. 21	.30	.40	.41	.42	.42	.42	.42	.42	.42	.42	.42	.42
Sept. 22	.23	.37	.43	.48	.49	.52	.52	.52	.52	.52	.52	.77
Oct. 4	.25	.33	.38	.40	.40	.41	.42	.42	.42	.42	.44	.45
Oct. 12	.40	.71	.87	.97	1.07	1.10	1.10	1.10	1.10	1.10	1.10	1.24
Oct. 18	.19	.29	.39	.42	.44	.44	.45	.45	.45	.45	.47	.52
Oct. 18	.22	.34	.36	.38	.43	.51	.57	.78	.90	.92	.92	.92
Oct. 21	.39	.67	.97	1.15	1.59	1.77	2.26	2.36	2.44	2.53	2.57	2.60
Dec. 11	.17	.34	.46	.55	.66	.84	.85	.87	.91	.91	1.09	1.11
Yap												
Jan. 6	.23	.37	.43	.48	.48	.58	.58	.61	.62	.62	.62	.62
Jan. 9	.18	.36	.48	.57	.66	.75	.82	.90	.93	.98	1.01	1.01
Feb. 8	.31	.60	.82	.91	1.22	1.42	1.69	1.87	2.16	2.34	2.50	3.17
Feb. 10	.18	.29	.42	.55	.68	.79	.83	.89	.97	1.01	1.06	1.06
Mar. 6	.35	.66	.84	1.00	1.19	1.66	1.95	1.98	1.98	2.17	2.56	3.30
Mar. 6	.18	.33	.38	.46	.49	.53	.55	.59	.60	.61	.64	.65
Apr. 1	.40	.49	.52	.55	.85	1.18	1.39	1.45	1.46	1.46	1.48	1.52
Apr. 16	.16	.31	.36	.41	.46	.59	.72	.97	1.03	1.21	1.21	1.21
Apr. 16	.23	.34	.53	.64	.86	.98	1.14	1.24	1.25	1.26	1.38	1.43
May 13	.40	.75	.95	1.13	1.55	2.07	2.38	2.43	2.87	2.95	3.00	3.64
June 8	.21	.38	.45	.49	.60	.60	.60	.60	.60	.60	.60	.63
June 19	.31	.33	.33	.33	.33	.33	.33	.33	.33	.33	.33	.40
June 20	.17	.31	.40	.53	.57	.59	.59	.59	.59	.60	.67	.67
June 20	.22	.31	.35	.37	.37	.37	.37	.37	.37	.37	.37	.52
June 25	.25	.34	.37	.37	.37	.37	.37	.44	.58	.61	.66	.73
July 4	.27	.39	.41	.41	.41	.41	.45	.87	.87	.91	.93	.98
July 7	.24	.38	.47	.50	.53	.58	.62	.65	1.05	1.19	1.29	1.37
July 17	.22	.41	.52	.57	.63	.67	.67	.67	.67	.67	.67	.67
July 18	.27	.46	.62	.72	.91	1.46	1.59	1.60	1.60	1.60	1.61	1.61
July 19	.19	.38	.52	.55	.55	.55	.56	.60	.62	.63	.63	.64
July 23	.25	.49	.69	.79	.93	1.11	1.19	1.22	1.25	1.26	1.28	1.31
July 24	.25	.29	.30	.30	.30	.35	.36	.36	.39	.40	.40	.40
July 24	.19	.36	.40	.48	.56	.69	.98	1.19	1.25	1.55	1.96	2.37
Aug. 2	.33	.49	.63	.82	1.05	1.36	1.41	1.47	1.51	1.53	1.54	1.57
Aug. 6	.17	.31	.33	.38	.48	.49	.49	.49	.49	.49	.49	.49
Aug. 8	.25	.45	.68	.73	.82	.97	1.00	1.02	1.10	1.15	1.16	1.21
Aug. 26	.25	.42	.57	.64	.69	.77	.84	.88	.92	.98	1.01	1.03
Sept. 8	.19	.37	.43	.45	.54	.56	.60	.77	.79	.79	.79	.79
Sept. 8	.25	.42	.54	.67	.76	.77	.78	.78	.78	.78	.78	.78
Sept. 11	.16	.31	.36	.41	.46	.51	.58	.64	.64	.64	.64	.64
Sept. 14	.15	.26	.35	.42	.56	.69	.72	.73	.73	.73	.75	.78
Sept. 19	.19	.29	.34	.48	.61	.62	.62	.62	.62	.62	.62	.62
Sept. 23	.26	.41	.50	.52	.57	.63	.67	.75	.81	.87	.95	1.07
Sept. 26	.22	.39	.50	.60	.87	.91	.92	.99	1.48	1.57	1.62	1.67
Oct. 18	.26	.44	.51	.56	.64	.65	.65	.65	.65	.65	.65	.65
Oct. 23	.32	.52	.70	.75	.76	.77	.77	.85	.86	.86	.87	.87
Oct. 24	.26	.43	.51	.59	.59	.59	.59	.60	.61	.61	.61	.61
Oct. 25	.20	.36	.48	.57	.81	.96	1.14	1.36	1.40	1.48	1.59	1.64
Dec. 5	.24	.47	.57	.60	.63	.65	.69	.71	.72	.75	.81	1.34
Dec. 7	.17	.27	.37	.47	.58	.71	.75	.83	.90	.94	1.01	1.04
Dec. 16	.26	.34	.35	.44	.50	.50	.50	.50	.51	.81	1.01	1.16
PENNSYLVANIA												
Allentown Airport												
June 15	.45	.86	1.08	1.38	1.48	1.50	1.53	1.57	1.58	1.58	1.59	1.59
July 23	.16	.28	.36	.41	.45	.50	.52	.52	.53	.53	[illegible]	.56
Aug. 7	.25	.40	.61	.67	.75	.80	.87	.90	.94	.99	1.00	1.00
Aug. 7	.20	.30	.39	.40	.42	.42	.42	.42	.42	.42	.42	.42
Aug. 16	.43	.73	.73	.73	.73	.74	.76	.76	.76	.76	.76	.76
Aug. 27-28	.25	.45	.60	.70	1.00	1.13	1.23	1.28	1.31	1.33	1.33	1.33
Erie Airport												
June 10	.62	.74	.89	.92	.92	.92	1.19	1.19	1.22	1.26	1.26	1.26
June 10	.27	.36	.42	.47	.62	.87	.98	1.19	1.21	1.21	1.21	1.21
Aug. 6	.34	.64	.98	1.09	1.12	1.16	1.21	1.24	1.26	1.26	1.26	1.26
Aug. 8	.24	.40	.52	.64	.86	1.21	1.42	1.46	1.54	1.60	1.62	1.62
Sept. 10	.24	.34	.39	.39	.40	.40	.40	.40	.40	.40	.40	.40
New Cumberland AP												
Apr. 7	.22	.39	.41	.41	.44	.45	.50	.51	.51	.51	.51	.52
May 24	.29	.41	.41	.41	.41	.41	.42	.42	.42	.42	[illegible]	.42
June 1	.22	.36	.42	.42	.42	.42	.42	.42	.42	.42	.42	.42
June 14	.25	.40	.51	.62	.78	.99	1.00	1.02	1.04	1.04	1.05	1.06
July 23	.25	.38	.40	.41	.50	.53	.58	.60	.64	.64	.64	.64
Aug. 9	.80	1.12	1.18	1.23	1.25	1.26	1.27	1.29	1.32	1.32	1.32	1.32
Philadelphia AP												
Jan. 15	.24	.30	.32	.33	.37	.49	.52	.53	.53	.53	.53	[illegible]
Apr. 7	.20	.34	.39	.43	.47	[illegible]	.55	.59	.61	.64	.65	[illegible]
May 24	.23	.45	.49	.58	.64	.67	.69	.76	.83	.87	.94	.98
May 24	.23	.32	.32	.32	.32	.32	.32	.33	.33	.40	.44	[illegible]
June 12	.21	.32	.33	.38	.39	.39	.40	[illegible]	[illegible]	.40	.40	.44
June 12	.21	.38	.42	.58	.77	.88	.89	.90	.94	1.03	[illegible]	1.05
June 23	.22	.28	.38	.46	.49	.64	.77	.83	.86	.87	[illegible]	.92

( ) Estimated Data

EXCESSIVE SHORT DURATION RAINFALL

Station and date	Maximum precipitation in inches (5 to 180 minutes)											
	5	10	15	20	30	45	60	80	100	120	150	180
PENNSYLVANIA (Cont'd.)												
Philadelphia AP (Cont'd.)												
June 21	0.54	0.87	0.99	1.28	1.73	2.00	2.21	2.60	2.61	2.61	2.61	2.61
July 22	.24	.38	.40	.44	.45	.45	.45	.45	.45	.45	.45	.45
July 23	.21	.30	.32	.35	.41	.42	.45	.46	.46	.46	.46	.46
Aug. 7	.30	.50	.53	.56	.82	.94	1.00	1.04	1.04	1.04	1.04	1.04
Aug. 9	.41	.82	.92	1.18	1.44	1.59	1.60	1.60	1.60	1.62	1.67	1.69
Pittsburgh												
May 19	.48	.68	.69	.69	.70	.70	.70	.71	.71	.71	.73	.73
June 13	.18	.35	.46	.52	.74	.84	.89	.94	.94	.94	.94	.94
Aug. 8	.25	.40	.55	.65	.65	.65	.65	.65	.65	.65	.65	.65
Aug. 9	.45	.68	.78	.81	.81	.81	.81	.81	.81	.81	.81	.81
Sept. 2	.28	.44	.45	.45	.54	.57	.69	.90	1.05	1.15	1.28	1.52
Pittsburgh Airport												
May 31	.25	.37	.44	.47	.50	.51	.52	.53	.53	.53	.53	.54
Aug. 8	.24	.37	.45	.47	.48	.49	.49	.49	.49	.49	.49	.49
Aug. 8	.26	.40	.46	.48	.49	.49	.49	.49	.49	.49	.49	.49
Aug. 9	.17	.32	.33	.35	.36	.36	.36	.36	.36	.36	.36	.36
Sept. 2	.21	.39	.41	.45	.51	.52	.53	.53	.55	.57	.60	.60
Oct. 4	.30	.50	.53	.54	.55	.67	.67	.67	.67	.67	.67	.67
Reading												
Apr. 7	.22	.39	.46	.49	.50	.51	.52	.52	.52	.52	.52	.52
May 31	.46	.70	.81	.98	1.19	1.66	2.17	3.00	3.16	3.27	3.30	3.30
Aug. 9	.51	.83	.89	.96	1.02	1.04	1.30	1.43	1.49	1.49	1.49	1.49
Nov. 10	.19	.30	.33	.34	.39	.50	.65	.87	1.03	1.13	1.35	1.51
Scranton Airport												
Aug. 27	.24	.36	.45	.52	.57	.60	.65	.71	.76	.90	.93	.98
Sept. 14	.25	.30	.33	.34	.36	.38	.38	.38	.38	.38	.38	.38
RHODE ISLAND												
Providence Airport												
June 24	.20	.31	.43	.54	.70	.98	1.15	1.25	1.60	1.78	1.91	1.91
July 9	.26	.44	.60	.74	.84	1.04	1.19	1.23	1.25	1.28	1.31	1.31
Oct. 5	.20	.32	.40	.47	.63	.78	.93	1.09	1.26	1.44	1.57	1.67
Oct. 5	.16	.28	.34	.41	.58	.77	.93	1.04	1.16	1.26	1.43	1.67
SOUTH CAROLINA												
Charleston												
Apr. 29	.20	.25	.35	.42	.66	.67	.68	.68	.68	.68	.69	.69
May 9	.19	.31	.43	.52	.56	.62	.63	.63	.63	.64	.64	.64
May 31	.26	.37	.46	.46	.56	.65	.65	.66	.69	.69	.80	.82
June 2	.19	.36	.41	.43	.45	.49	.50	.52	.52	.52	.53	.53
June 4	.24	.34	.38	.44	.51	.57	.59	.65	.76	.92	1.03	1.13
June 5	.25	.40	.48	.50	.50	.50	.50	.50	.50	.50	.50	.50
June 6	.31	.53	.63	.72	.89	.96	1.16	1.52	1.53	1.53	1.53	1.53
June 12	.26	.37	.39	.40	.47	.47	.47	.47	.47	.47	.47	.47
June 12	.30	.43	.51	.57	.59	.63	.65	.65	.65	.65	.65	.65
June 13	.29	.49	.66	.73	.79	.84	.86	.89	.90	.96	1.01	1.01
June 13	.21	.33	.35	.53	.60	.67	.72	.75	.77	.78	.80	.82
June 14	.14	.24	.30	.41	.46	.47	.47	.47	.47	.47	.47	.47
June 26	.14	.21	.27	.34	.50	.59	.63	.63	.63	.63	.63	.63
June 26	.38	.69	.96	1.08	1.17	1.20	1.20	1.20	1.20	1.20	1.20	1.20
July 12	.21	.32	.40	.41	.41	.41	.41	.41	.41	.41	.41	.41
July 25	.29	.39	.49	.53	.56	.57	.63	.65	.67	.68	.69	.69
July 29	.28	.36	.36	.36	.37	.45	.45	.45	.45	.45	.46	.48
Aug. 3	.38	.63	.87	1.03	1.12	1.16	1.21	1.22	1.23	1.23	1.23	1.23
Aug. 9	.40	.63	.80	.96	1.16	1.23	1.29	1.30	1.30	1.30	1.30	1.30
Aug. 17	.39	.61	.71	.74	.75	.75	.75	.75	.76	.78	.79	.79
Aug. 25	.20	.37	.53	.59	.63	.65	.65	.65	.65	.65	.65	.66
Aug. 26	.20	.31	.38	.40	.43	.57	.72	.73	.73	.73	.74	.89
Aug. 27	.31	.51	.67	.92	1.13	1.24	1.25	1.27	1.28	1.30	1.32	1.34
Sept. 27	.20	.31	.37	.37	.37	.37	.50	.50	.58	.58	.59	.59
Oct. 2	.29	.40	.41	.55	.64	.77	.78	.90	1.02	1.04	1.04	1.05
Columbia Airport												
Feb. 22	.35	.63	.75	.80	.82	.90	.95	1.01	1.08	1.12	1.28	1.39
June 1	.50	.75	.89	1.03	1.33	1.41	1.43	1.46	1.46	1.48	1.51	1.53
June 13	.17	.28	.37	.40	.43	.44	.55	.59	.60	.65	.66	.67
July 12	.28	.54	.69	.71	.72	.72	.72	.72	.75	.85	.95	.98
Aug. 4	.38	.75	1.10	1.28	1.34	1.35	1.35	1.35	1.35	1.35	1.35	1.35
Aug. 7	.18	.35	.44	.49	.64	.69	.69	.69	.69	.69	.69	.69
Nov. 21	.26	.38	.40	.41	.43	.49	.58	.65	.70	.75	.80	.80
Florence Airport												
Feb. 22	.39	.64	.75	.77	.85	.90	.95	1.02	1.06	1.09	1.16	1.23
Apr. 11	.28	.31	.32	.34	.35	.35	.39	.41	.42	.44	.45	.48
Apr. 30	.20	.30	.35	.44	.60	.60	.60	.65	.66	.66	.66	.66
June 5	.48	.56	.58	.61	.61	.62	1.08	1.11	1.12	1.12	1.13	1.13
June 26	.22	.35	.39	.41	.46	.47	.47	.47	.47	.48	.48	.49
July 3	.39	.52	.55	.59	.64	.70	.71	.71	.71	.72	.72	.72
July 29	.46	.74	.84	.86	.88	.89	.89	.89	.89	.89	.89	.89
Aug. 16	.30	.40	.43	.47	.47	.47	.49	.50	.50	.50	.50	.50
Gnvle-Spartanburg AP												
Apr. 11	.25	.41	.61	.73	.76	.76	.77	.77	.79	1.01	1.08	1.12
May 31	.30	.50	.65	.70	.81	.81	.94	.98	1.06	1.07	1.07	1.07
June 2	.29	.48	.61	.70	.94	1.13	1.33	1.61	1.66	1.66	1.70	1.70
July 7	.16	.24	.33	.40	.56	.57	.57	.57	.57	.57	.57	.57
July 25	.40	.55	.55	.58	.58	.60	.60	.60	.60	.60	.62	.62
July 29	.24	.45	.55	.60	.66	.70	.75	.77	.78	.78	.78	.78
July 30	.33	.62	.85	.96	1.06	1.12	1.12	1.12	1.12	1.12	1.12	1.12
Aug. 3	.16	.31	.46	.62	.84	1.14	1.40	1.68	1.68	1.68	1.68	1.68
Aug. 7	.37	.51	.51	.51	.51	.51	.51	.51	.51	.51	.51	.51
Aug. 15	.21	.41	.50	.55	.81	1.06	1.06	1.24	1.26	1.27	1.27	1.27
Oct. 4	.23	.34	.39	.43	.46	.49	.49	.49	.50	.52	.67	.77
Oct. 21	.37	.39	.39	.39	.39	.39	.39	.40	.40	.40	.40	.40
SOUTH DAKOTA												
Huron Airport												
May 15	.35	.68	.98	1.10	1.26	1.32	1.34	1.41	1.48	1.53	1.55	1.55
May 21	.60	.90	1.15	1.40	1.65	1.71	1.71	1.72	1.72	1.72	1.72	1.72
July 4	.11	.22	.32	.35	.50	.77	.87	.99	1.03	1.04	1.20	1.45
July 11	.18	.35	.36	.36	.36	.36	.36	.36	.36	.36	.36	.36
Aug. 9	.24	.44	.54	.57	.63	.83	.95	1.04	1.04	1.04	1.04	1.04
Sept. 2	.28	.52	.75	.84	.97	.99	1.00	1.08	1.09	1.10	1.12	1.12
Rapid City Airport												
May 21	.17	.31	.35	.48	.58	.61	.63	.68	.72	.88	1.07	1.18
June 30	.60	.95	1.00	1.09	1.20	1.22	1.23	1.25	1.25	1.25	1.25	1.25
July 12	.20	.37	.45	.50	.59	.77	.85	.89	.90	.90	.90	.90
SOUTH DAKOTA (Cont'd.)												
Rapid City AP (Cont'd.)												
July 13	0.28	0.46	0.70	0.90	1.12	1.21	1.29	1.37	1.41	1.46	1.54	1.64
Aug. 22	.35	.65	.68	.70	.71	.71	.71	.71	.71	.71	.71	.71
Sioux Falls AP												
May 21	.32	.60	.85	1.15	1.24	1.37	1.51	1.62	1.62	1.62	1.62	1.63
May 28	.36	.43	.52	.76	.86	.87	.87	.87	.87	.87	.87	.87
June 17	.23	.38	.40	.43	.44	.44	.46	.46	.46	.51	.52	.52
July 1	.30	.35	.36	.40	.43	.48	.53	.60	.70	.92	1.00	1.03
Aug. 30	.32	.45	.48	.53	.56	.61	.65	.68	.86	.92	.92	.92
Sept. 3	.29	.31	.41	.42	.44	.47	.51	.57	.60	.64	.72	.72
TENNESSEE												
Bristol Airport												
May 25	.25	.26	.26	.26	.26	.26	.26	.26	.26	.26	.26	.26
May 30	.25	.30	.31	.31	.31	.31	.31	.31	.33	.33	.33	.33
July 3	.15	.26	.32	.40	.55	.81	.92	.99	1.05	1.11	1.16	1.35
Aug. 21	.40	.60	.71	.80	.93	.95	.95	.95	.95	.95	.95	.95
Sept. 4	.25	.40	.41	.42	.43	.46	.63	.65	.66	.66	.68	.70
Sept. 15	.18	.35	.45	.62	.72	.77	.77	.79	.92	.92	.92	.95
Chattanooga AP												
Feb. 21	.17	.19	.29	.37	.50	.67	.80	.95	1.01	1.02	1.11	1.11
May 29	.25	.37	.45	.47	.51	.62	.62	.62	.63	.64	.73	.80
June 3	.27	.37	.41	.51	.56	.97	1.09	1.13	1.25	1.26	1.26	1.26
June 6	.27	.30	.47	.54	.55	.64	.64	.64	.64	.64	.64	.64
June 7	.27	.40	.46	.49	.52	.52	.53	.53	.53	.53	.53	.54
July 25	.33	.59	.80	.86	1.03	1.32	1.49	1.59	1.60	1.61	1.61	1.64
Aug. 15	.19	.35	.44	.46	.46	.46	.46	.46	.46	.46	.46	.46
Sept. 13	.21	.34	.37	.41	.47	.51	.51	.52	.52	.53	.54	.54
Oct. 3	.22	.33	.46	.53	.62	.66	.86	1.01	1.06	1.09	1.21	1.26
Oct. 21	.23	.37	.52	.59	.61	.65	.65	.65	.65	.65	.65	.65
Knoxville Airport												
Feb. 9	.25	.36	.37	.40	.42	.43	.46	.46	.53	.61	.69	.79
May 29	.30	.58	.71	.71	.71	.71	.71	.71	.71	.71	.71	.71
June 27	.37	.58	.72	.79	1.20	1.35	1.49	1.63	1.63	1.64	1.66	1.70
July 3	.42	.76	.82	.82	.82	.82	.86	.86	.86	.86	.87	.97
July 3	.40	.55	.55	.60	.80	.80	.80	.80	.80	.80	.80	.80
July 24	.28	.33	.34	.34	.35	.36	.38	.42	.46	.46	.46	.46
July 25	.26	.33	.49	.68	1.02	1.26	1.52	1.94	1.95	1.95	1.95	1.95
Aug. 13	.26	.51	.60	.72	.76	.76	.76	.76	.76	.76	.76	.76
Sept. 15	.45	.70	.83	.90	.92	.92	.92	.92	.92	.92	.92	.92
Memphis Airport												
Feb. 23	.14	.26	.35	.39	.41	.44	.45	.45	.45	.45	.45	.45
Apr. 30 - May 1	.50	.75	.89	.97	1.03	1.09	1.15	1.26	1.35	1.41	1.48	1.51
June 2	.27	.31	.32	.40	.48	.50	.56	.61	.63	.64	.68	.70
June 19	.35	.66	.89	1.22	1.47	1.53	1.56	1.63	1.68	1.73	1.75	1.76
June 24	.15	.29	.40	.46	.52	.54	.54	.54	.68	.73	.73	.73
July 5	.22	.41	.47	.49	.53	.64	.66	.67	.67	.67	.67	.67
July 25	.19	.26	.31	.43	.54	.63	.69	.80	.88	.98	1.03	1.05
July 29	.31	.36	.37	.37	.37	.37	.37	.38	.38	.39	.40	.41
Aug. 23	.21	.31	.34	.34	.35	.35	.36	.36	.36	.36	.36	.36
Aug. 24	.25	.45	.48	.63	.75	.82	.83	.83	.83	.84	.85	.86
Aug. 30	.27	.45	.64	.82	1.21	1.57	1.79	2.02	2.12	2.14	2.15	2.19
Sept. 9	.20	.30	.36	.45	.50	.52	.60	.60	.60	.60	.60	.60
Sept. [illegible]	.25	.35	.45	.47	.47	.50	.62	.78	.80	.84	.85	.89
Sept. 14	.19	.28	.37	.44	.55	.59	.60	.60	.86	1.00	1.01	1.01
Sept. 15	.29	.55	.66	.78	.82	.83	.83	.83	.83	.83	.83	.83
Oct. 7	.30	.52	.62	.65	.69	.72	.73	.73	.74	.74	.74	.74
Nov. 11 *	.31	.47	.62	.75	.80	.83	.85	.89	.90	.92	.93	.94
Nashville Airport												
Feb. 23	.22	.42	.54	.66	.71	.71	.72	.73	.73	.73	.73	.73
Feb. 26	.24	.44	.50	.60	.65	.74	.84	.94	1.03	1.06	1.13	1.19
Feb. 26	.21	.24	.35	.36	.42	.52	.80	.94	.99	1.08	1.14	1.16
May 1	.20	.38	.47	.55	.74	.89	.90	.90	.91	.93	1.36	1.58
June 3	.30	.58	.76	.86	.97	1.26	1.64	1.74	1.78	1.80	1.84	1.91
June 11	.36	.44	.55	.74	.99	1.10	1.11	1.24	1.38	1.43	1.65	1.91
July 7	.22	.44	.60	.66	.71	.71	.71	.71	.71	.71	.71	.71
Sept. 13	.34	.60	.90	1.02	1.26	1.64	2.16	2.43	2.45	3.25	3.33	4.12
TEXAS												
Abilene												
Mar. 20	.16	.28	.35	.48	.53	.54	.54	.55	.57	.57	.57	.57
May 31	.14	.28	.35	.44	.65	.86	.94	.94	.97	1.06	1.07	1.07
June 1	.24	.46	.49	.58	.65	.79	.79	.79	.79	.79	.79	.79
June 6	.16	.32	.44	.58	.78	.93	.99	1.00	1.01	1.03	1.09	1.16
June 7	.20	.30	.38	.52	.58	.68	.86	1.12	1.14	1.20	1.20	1.20
June 8	.18	.34	.40	.41	.46	.62	.70	.83	.90	.90	.90	.90
June 9	.17	.30	.34	.38	.42	.43	.46	.51	.53	.53	.53	.53
June 11	.17	.30	.44	.48	.63	.75	.91	1.09	1.24	1.43	1.67	1.77
June 30	.22	.42	.56	.62	.84	.90	.91	.92	.92	.92	.92	.92
July 16	.11	.18	.27	.35	.51	.64	.72	.91	1.02	1.09	1.15	1.17
July 26	.27	.46	.56	.64	.74	.83	1.14	1.39	1.58	1.72	1.77	1.88
Aug. 31	.18	.22	.26	.43	.62	.73	.90	.92	.98	1.17	1.20	1.20
Sept. 5	.18	.30	.36	.40	.42	.42	.42	.42	.42	.42	.42	.43
Sept. 7	.26	.36	.40	.52	.62	.66	.67	.68	.69	.70	.73	.91
Oct. 8	.15	.30	.36	.38	.58	.70	.72	.72	.72	.72	.72	.72
Oct. 28	.16	.26	.30	.42	.50	.54	.56	.58	.60	.64	.66	.70
Amarillo Airport												
May 16	.44	.64	.72	.84	.85	.89	.89	.89	.89	.89	.89	.89
June 14	.68	.83	.90	.92	.93	.94	.95	1.10	1.56	1.60	1.61	1.62
June 17	.46	.57	.67	.67	.76	.91	1.10	1.29	1.30	1.30	1.30	1.33
June 18	.30	.60	.74	1.00	1.66	1.78	1.94	2.14	2.29	2.79	2.81	2.81
June 24	.30	.40	.62	.72	.89	.96	1.02	1.08	1.11	1.12	1.18	1.20
July 11	.28	.42	.58	.80	1.10	1.21	1.29	1.33	1.40	1.42	1.42	1.42
July 22	.24	.42	.56	.74	.81	.84	.85	.85	.85	.85	.85	.85
July 23	.38	.68	.85	1.22	1.63	1.76	1.79	1.85	1.87	1.87	1.88	1.88
July 24	.18	.32	.39	.41	.43	.43	.43	.43	.43	.43	.43	.44
July 31	.14	.21	.29	.36	.45	.64	.84	.86	.88	.91	.93	.93
Aug. 13	.14	.19	.25	.30	.48	.83	1.08	1.11	1.16	1.20	1.23	1.32
Aug. 15	.19	.37	.51	.55	.55	.55	.55	.55	.55	.55	.55	.55
Sept. 7	.30	.60	.70	.71	.71	.71	.73	1.06	1.07	1.17	1.38	1.39
Sept. 15	.26	.29	.30	.30	.31	.31	.31	.31	.31	.31	.31	.31
Austin Airport												
Apr. 4	.30	.50	.51	.53	.60	.64	.67	.70	.74	.82	.92	1.00
Apr. 27	.13	.21	.32	.39	.51	.80	.99	1.04	1.08	1.09	1.11	1.13
May 29	.30	.37	.39	.41	.45	.47	.55	.78	.83	.90	.96	1.03
June 1	.24	.36	.49	.56	.66	.97	1.25	1.28	1.28	1.29	1.29	1.29
June 3	.43	.60	.82	.98	1.21	1.53	1.56	1.56	1.56	1.56	1.56	1.56

* Partly estimated

EXCESSIVE SHORT DURATION RAINFALL

Station and date	Maximum precipitation in inches (5 to 180 minutes)											
	5	10	15	20	30	45	60	80	100	120	150	180
TEXAS (Cont'd.)												
Austin Airport (Cont'd.)												
June 13	0.18	0.25	0.41	0.47	0.48	0.48	0.50	0.50	0.51	0.53	0.55	0.60
June 27	.37	.56	.74	.78	.79	.96	.99	1.00	1.00	1.03	1.07	1.09
Aug. 25				Triple Register Inoperative								
Sept. 8	.32	.57	.71	.84	1.14	1.46	1.47	1.49	1.52	1.60	1.66	1.78
Sept. 26	.29	.50	.65	.77	.93	1.00	1.00	1.00	1.00	1.00	1.02	1.05
Oct. 1	.48	.87	1.11	1.29	1.40	1.50	1.55	1.55	1.55	1.55	1.55	1.55
Oct. 9	.21	.41	.49	.55	.71	1.00	1.22	1.32	1.34	1.34	1.34	1.34
Brownsville Airport												
May 1	.45	.82	1.14	1.38	1.78	2.10	2.50	2.71	2.76	2.79	2.79	2.79
June 25	.18	.30	.40	.46	.59	.70	.79	.82	.96	1.05	1.16	1.19
June 26	.18	.35	.46	.50	.53	.58	.61	.67	.71	.80	.95	1.06
Sept. 26	.25	.38	.54	.70	.94	1.04	1.05	1.08	1.08	1.08	1.08	1.08
Corpus Christi AP												
June 20	.18	.25	.35	.35	.37	.58	.58	.58	.58	.58	.58	.58
June 26	.19	.33	.34	.38	.40	.40	.42	.42	.42	.42	.42	.42
Aug. 25	.19	.29	.37	.42	.51	.68	.70	.71	.71	.71	.71	.71
Sept. 9	.23	.46	.62	.74	.86	.93	.99	1.21	1.43	1.49	1.51	1.52
Sept. 11	.42	.52	.53	.53	.53	.54	.55	.55	.55	.55	.55	.55
Sept. 17	.21	.39	.50	.61	.70	.72	.73	.73	.74	.75	.76	.76
Sept. 18	.24	.35	.37	.37	.38	.38	.38	.38	.38	.38	.38	.39
Sept. 26	.25	.38	.43	.44	.44	.44	.44	.44	.44	.44	.44	.44
Dallas Airport												
Feb. 26	.35	.65	.91	.98	.98	.99	1.12	1.14	1.14	1.15	1.15	1.15
Apr. 10	.17	.26	.37	.45	.62	.69	.70	.70	.70	.70	.70	.70
Apr. 22	.33	.46	.57	.67	.71	.83	1.05	1.13	1.14	1.15	1.16	1.17
Apr. 23	.27	.38	.49	.63	.92	1.07	1.16	1.28	1.44	1.59	1.69	1.75
Apr. 27	.33	.42	.47	.55	.58	.63	.77	.78	.81	.84	.98	1.12
Apr. 27	.32	.50	.55	.57	.58	.58	.58	.58	.58	.58	.59	.59
May 28-29	.18	.30	.40	.55	.70	.75	.77	.80	.85	.93	1.05	1.15
June 8	.51	.77	.91	.99	1.11	1.14	1.17	1.23	1.30	1.35	1.40	1.45
June 29	.29	.40	.45	.57	.59	.59	.59	.59	.59	.59	.59	.59
July 26	.83	1.38	1.74	1.94	2.38	2.49	2.62	2.69	2.70	2.74	3.03	3.14
July 27	.38	.75	.95	1.33	1.83	2.36	2.73	2.98	3.26	3.49	3.60	3.67
Aug. 24	.37	.65	.81	.87	1.28	1.50	1.62	1.65	1.67	1.71	1.77	1.80
Sept. 1	.17	.33	.44	.57	.67	.95	1.02	1.13	1.13	1.14	1.15	1.16
Sept. 7	.30	.48	.55	.61	.70	.70	.70	.71	.72	.72	.72	.72
Sept. 8	.39	.49	.53	.57	.66	.94	1.15	1.32	1.39	1.42	1.50	1.64
Oct. 8	.58	.73	.94	1.13	1.52	2.06	2.25	2.70	3.20	3.27	4.40	4.65
Oct. 28	.35	.46	.50	.53	.70	.85	.94	1.02	1.20	1.60	1.73	1.74
Nov. 7	.57	.59	.60	.60	.67	.82	.91	.91	.91	.91	.93	.95
Nov. 26	.23	.38	.45	.51	.72	.85	1.10	1.45	1.65	1.75	2.04	2.08
El Paso Airport												
Sept. 2	.21	.40	.50	.71	.79	.81	.99	1.21	1.24	1.29	1.31	1.33
Fort Worth Airport												
Feb. 26	.36	.45	.52	.53	.57	.58	.59	.68	.70	.70	.70	.70
Apr. 22	.26	.60	.72	.95	1.12	1.40	1.67	1.85	1.87	1.87	1.90	1.92
June 1	.27	.44	.71	.83	.89	.92	1.10	1.13	1.13	1.13	1.13	1.13
June 27	.70	1.10	1.25	1.45	1.81	2.10	2.44	2.62	2.78	2.78	2.79	2.82
June 30	.20	.36	.41	.45	.48	.49	.49	.52	.72	.74	.74	.74
July 17	.22	.33	.35	.39	.44	.44	.44	.44	.44	.44	.44	.44
July 26	.55	.91	1.00	1.07	1.20	1.25	1.31	1.41	1.47	1.61	1.81	1.83
July 27	.30	.50	.60	.80	1.05	1.30	1.36	1.65	1.82	1.97	2.07	2.18
Aug. 2	.20	.34	.41	.53	.81	.95	1.02	1.09	1.12	1.17	1.22	1.26
Aug. 24	.15	.30	.38	.48	.52	.53	.54	.58	.59	.62	.62	.62
Sept. 7	.22	.33	.36	.43	.53	.55	.57	.63	.65	.66	.68	.73
Sept. 25	.30	.42	.43	.44	.46	.46	.46	.47	.47	.47	.47	.48
Oct. 8	.40	.74	.76	.77	.99	1.00	1.00	1.00	1.00	1.10	1.31	1.44
Oct. 28	.25	.50	.70	.87	1.08	1.15	1.16	1.16	1.16	1.16	1.16	1.16
Nov. 7	.25	.50	.56	.60	.63	.64	.65	.65	.65	.66	.82	.85
Nov. 26	.17	.34	.41	.50	.70	.89	.96	1.07	1.15	1.21	1.22	1.23
Galveston												
Mar. 11	.28	.33	.40	.40	.48	.48	.48	.48	.48	.48	.48	.48
Apr. 27	.39	.48	.55	.60	.63	.86	.97	.99	.99	.99	1.01	1.01
June 2	.30	.47	.57	.68	.80	.89	.96	1.03	1.17	1.18	1.40	1.47
June 4	.28	.45	.59	.74	.86	.94	.98	1.00	1.04	1.04	1.05	1.05
June 19	.51	.96	1.29	1.52	2.04	2.63	2.97	2.99	2.99	2.99	2.99	2.99
Aug. 22	.20	.35	.48	.62	.90	1.28	1.31	1.31	1.31	1.31	1.31	1.31
Aug. 28	.18	.27	.34	.40	.43	.43	.43	.43	.43	.43	.43	.43
Oct. 14	.42	.57	.58	.61	.62	.76	.82	.86	.86	.86	.86	.94
Oct. 16	.17	.27	.33	.39	.46	.68	.70	.71	.71	.73	.75	.75
Oct. 28	.32	.45	.49	.50	.51	.55	.55	.55	.55	.55	.55	.55
Nov. 6	.22	.31	.34	.34	.35	.35	.35	.35	.35	.35	.35	.35
Houston												
Apr. 30 - May 1	.31	.62	.80	.87	.95	1.41	1.87	2.47	2.82	2.90	2.95	3.00
June 4	.57	1.14	1.56	1.86	2.28	2.47	2.60	2.65	2.81	[illegible].98	3.18	3.20
June 27	.30	.59	.77	.85	.94	.97	.99	.99	1.03	1.07	1.07	1.25
July 16	.20	.40	.52	.64	.83	.92	.95	.96	.96	.97	1.00	1.03
Aug. 16	.19	.32	.39	.45	.50	.59	.69	.79	.82	.83	.83	.84
Aug. 27	.25	.34	.35	.35	.44	.54	.69	.82	.83	.83	.83	.83
Sept. 6	.16	.29	.39	.45	.47	.47	.47	.48	.48	.49	.49	.50
Sept. 8	.19	.26	.36	.40	.42	.45	.64	.73	.82	.86	.87	.87
Sept. 17	.25	.38	.47	.53	.60	.62	.62	.62	.62	.62	.62	.62
Oct. 14	.46	.72	.79	.79	.79	.79	.79	.79	.79	.79	.79	.79
Oct. 16	.43	.67	.86	.96	1.17	1.38	1.53	1.55	1.56	1.57	1.57	1.57
Oct. 20	.21	.37	.49	.67	.88	1.17	1.29	1.36	1.36	1.36	1.36	1.36
Oct. 28	.17	.25	.36	.45	.51	.54	.57	.58	.58	.58	.58	.58
Nov. 27	.25	.37	.50	.59	.68	.90	1.12	1.31	1.43	1.51	1.79	2.22
Laredo Airport												
Apr. 23	.33	.55	.62	.69	.82	1.05	1.34	1.53	1.62	1.70	1.81	1.92
Lubbock												
June [illegible]	.21	.33	.37	.38	.38	.44	.44	.44	.44	.44	.44	.44
June 13	.23	.33	.46	.56	.61	.63	.64	.65	.66	.68	.72	.73
July 8	.20	.28	.34	.47	.61	.62	.62	.62	.62	.62	.62	.62
July 9	.20	.32	.41	.43	.46	.47	.47	.47	.47	.47	.47	.47
July 23	.37	.56	.66	.77	.81	.85	.89	.98	1.08	1.12	1.15	1.21
July 26	.22	.38	.42	.44	.44	.45	.46	.48	.50	.50	.50	.50
Sept. 4	.16	.28	.35	.42	.52	.62	.68	.69	.69	.69	.70	.70
Sept. 7	.26	.52	.54	.56	.86	.86	.86	.86	.87	1.02	1.02	1.02
Midland Airport												
June 11	.20	.27	.38	.40	.45	.71	.72	.73	.74	.74	.75	.75
June 25	.29	.55	.56	.57	.58	.64	.66	.67	.67	.67	.67	.67
July 17	.28	.37	.38	.55	.58	.67	.76	.94	.99	.99	.99	.99
Aug. 24	.17	.27	.44	.46	.55	.62	.64	.64	.64	.64	.64	.64
Aug. 31	.23	.35	.39	.45	.52	.67	.70	.77	.82	.83	.84	.93
TEXAS (Cont'd.)												
Port Arthur AP												
Apr. 27	0.38	0.45	0.69	0.83	0.91	1.01	1.02	1.03	1.03	1.03	1.03	1.03
June 2	.25	.39	.49	.60	.74	.93	1.01	1.13	1.14	1.20	1.24	1.30
June 3	.39	.68	.85	1.06	1.06	1.06	1.06	1.06	1.06	1.06	1.06	1.06
June 4	.25	.42	.54	.64	.79	1.01	1.07	1.13	1.22	1.27	1.37	1.43
June 4	.25	.27	.33	.39	.43	.50	.50	.50	.51	.54	.57	.58
July 2	.29	.42	.51	.56	.56	.56	.56	.56	.56	.56	.56	.56
Aug. 14	.37	.66	.96	1.21	1.50	1.69	1.87	1.91	1.91	1.91	1.91	1.92
Sept. 6	.42	.80	.95	1.08	1.20	1.33	1.40	1.40	1.40	1.40	1.43	1.43
Sept. 8	.30	.44	.46	.48	.51	.51	.51	.71	.74	.87	.91	1.07
Sept. 16	.25	.29	.38	.43	.48	.61	.76	.78	.78	.78	.79	.79
Oct. 16	.19	.34	.51	.64	.75	.76	.77	.77	.79	.81	.83	.83
Oct. 29	.27	.46	.65	.70	.79	.84	.87	.91	.93	.94	.94	.94
Nov. 27	.16	.31	.43	.57	.79	.99	1.23	1.42	1.58	1.73	1.90	2.14
San Angelo AP												
Apr. 22	.30	.44	.45	.45	.46	.46	.46	.46	.46	.46	.46	.46
July 16	.25	.36	.48	.60	.95	1.04	1.05	1.10	1.15	1.16	1.17	1.20
San Antonio AP												
Feb. 14	.33	.46	.53	.54	.54	.67	.67	.67	.67	.67	.67	.67
Apr. 6	.27	.31	.32	.32	.32	.34	.35	.37	.41	.46	.54	.62
Apr. 23	.14	.26	.30	.39	.57	.73	.82	.92	1.00	1.09	1.21	1.32
Apr. 27	.19	.31	.40	.48	.65	.83	1.17	1.39	1.48	1.50	1.53	1.58
May 29	.23	.46	.63	.80	.99	1.11	1.14	1.21	1.22	1.27	1.29	1.29
June 2	.27	.47	.57	.63	.71	.81	.87	.89	.90	.90	.91	.91
Aug. 25	.19	.37	.55	.72	.94	1.17	1.29	1.33	1.34	1.37	1.44	1.50
Sept. 8	.27	.41	.54	.56	.58	.58	.58	.59	.59	.59	.72	.72
Sept. 17	.23	.36	.41	.44	.47	.51	.51	.51	.51	.51	.51	.51
Sept. 26	.17	.32	.47	.56	.79	.99	1.01	1.04	1.04	1.04	1.04	1.04
Oct. 9	.25	.45	.59	.66	.93	1.09	1.10	1.10	1.10	1.10	1.10	1.10
Oct. 16	.23	.39	.49	.54	.81	.94	1.00	1.01	1.01	1.01	1.01	1.01
Nov. 27	.44	.86	1.16	1.50	2.06	2.51	2.85	3.06	3.49	3.65	3.68	3.92
Dec. 2	.30	.58	.64	.72	.89	1.03	1.03	1.04	1.04	1.05	1.06	1.06
Victoria												
Apr. 5	.25	.35	.55	.70	.77	.93	.95	1.00	1.00	1.00	1.00	1.00
Apr. 23	.25	.45	.50	.51	.52	.53	.70	1.10	1.15	1.20	1.20	1.20
May 29	.25	.45	.65	.75	.85	.93	.98	1.03	1.08	1.16	1.23	1.28
June 2	.30	.55	.75	.90	1.08	1.30	1.35	1.40	1.45	1.45	1.45	1.45
June 13	.25	.30	.35	.42	.45	.46	.47	.47	.47	.47	.47	.47
July 1	.30	.55	.75	.90	.98	1.04	1.04	1.10	1.14	1.15	1.17	1.17
Aug. 22	.35	.40	.42	.45	.47	.47	.47	.47	.47	.47	.47	.47
Sept. 3	.35	.45	.47	.48	.49	.49	.49	.49	.49	.49	.51	.56
Sept. 9	.37	.67	.82	1.04	1.07	1.08	1.10	1.22	1.51	1.78	2.05	2.07
Sept. 10	.27	.52	.68	.78	.83	.86	.88	.93	1.13	1.28	1.42	1.44
Nov. 27	.25	.45	.52	.60	.83	.90	1.02	1.05	1.06	1.07	1.08	1.08
Waco Airport												
Feb. 18	.18	.35	.51	.53	.56	.56	.57	.57	.58	.58	.58	.58
May 28	.20	.30	.40	.55	.75	.95	1.10	1.20	1.32	1.40	1.50	1.57
June 8	.32	.57	.62	.70	.95	1.15	1.16	1.17	1.18	1.18	1.18	1.18
June 9	.35	.70	.78	.88	1.01	1.09	1.15	1.15	1.16	1.16	1.16	1.16
Aug. 24	.30	.44	.48	.49	.50	.51	.55	.57	.67	.69	.69	.69
Sept. 5	.14	.25	.31	.37	.62	.83	1.02	1.16	1.19	1.20	1.20	1.20
Sept. 6	.18	.33	.37	.38	.38	.38	.38	.38	.38	.38	.38	.38
Sept. 8	.38	.63	.73	.88	1.33	1.40	1.48	1.67	1.80	1.85	1.92	1.99
Oct. 16	.28	.51	.56	.67	1.01	1.08	1.10	1.10	1.10	1.10	1.10	1.10
Wichita Falls												
Apr. 26	.22	.30	.38	.44	.46	.50	.51	.53	.54	.59	.63	.68
June 1	.37	.69	.98	1.20	1.32	1.39	1.41	1.45	1.47	1.52	1.52	1.52
June 6	.17	.34	.41	.47	.59	.64	.66	.74	.80	.86	.89	.90
June 18	.25	.42	.56	.66	.84	.92	1.05	1.07	1.07	1.07	1.08	1.08
June 29	.12	.22	.31	.39	.44	.67	.90	1.01	1.15	1.26	1.30	1.39
July 26	.32	.55	.75	.88	1.15	1.33	1.40	1.45	1.47	1.50	1.57	1.71
Aug. 31	.26	.40	.49	.55	.62	.71	.79	.80	.84	.86	.89	.91
Sept. 4	.15	.29	.38	.44	.54	.55	.56	.57	.57	.57	.63	.63
UTAH												
Milford Airport												
Sept. 28	.30	.36	.37	.37	.40	.46	.46	.56	.75	.85	1.00	1.09
Salt Lake City AP												
July 13	.50	.92	1.26	1.54	1.79	1.90	1.94	1.95	1.97	1.99	1.99	1.99
Wendover Airport						None						
VERMONT												
Burlington Airport												
June 19	.31	.45	.52	.53	.53	.53	.53	.53	.53	.53	.53	.53
June 30	.37	.44	.45	.45	.45	.45	.45	.45	.46	.46	.46	.46
July 13	.27	.31	.33	.35	.36	.40	.43	.43	.43	.43	.43	.43
July 31	.25	.33	.33	.35	.35	.42	.42	.47	.49	.49	.55	.62
July 31	.25	.40	.49	.49	.53	.60	.60	.60	.60	.60	.60	.60
VIRGINIA												
Lynchburg Airport												
Mar. 31	.32	.44	.43	.44	.45	.47	.52	.53	.58	.60	.61	.62
June 11	.25	.33	.46	.52	.57	.67	.92	.96	.97	.98	1.16	1.17
June 23	.26	.50	.52	.53	.54	.54	.54	.54	.54	.54	.54	.54
July 13	.22	.41	.48	.52	.55	.55	.55	.55	.55	.55	.55	.55
Aug. 21	.35	.55	.68	.78	.83	.84	.85	.88	.88	.88	.88	.88
Norfolk Airport												
Apr. [illegible]	.36	.44	.49	.53	.58	.65	.66	.66	.66	.66	.66	.66
Apr. 29	.22	.30	.36	.39	.50	.50	.50	.50	.50	.50	.50	.52
Apr. 29	.16	.22	.27	.34	.51	.52	.54	.54	.54	.54	.54	.54
May 2	.17	.31	.41	.49	.72	.79	.83	.90	.99	1.04	1.06	1.08
May 24	.43	.60	.73	.80	.81	.81	.82	.82	.82	.82	.82	.82
July 12	.26	.37	.48	.53	.75	1.04	1.19	1.21	1.21	1.21	1.21	1.21
July 16	.28	.38	.49	.55	.62	.65	.67	.69	.72	.72	.73	.73
July 31	.35	.55	.71	.72	.72	.72	.72	.72	.72	.72	.72	.72
July 31	.28	.53	.58	.73	1.00	1.18	1.35	1.54	1.54	1.62	1.65	1.94
Aug. 9	.49	.75	.95	1.12	1.48	1.63	1.64	1.66	1.74	1.79	1.84	1.85
Aug. 14	.30	.45	.45	.45	.45	.45	.45	.45	.45	.45	.45	.45
Aug. 17	.25	.38	.43	.46	.51	.53	.54	.54	.54	.54	.56	.66
Sept. 27	.14	.25	.32	.35	.46	.70	.77	.82	.92	.94	.99	1.00
Oct. 3	.26	.37	.48	.58	.77	1.06	1.33	1.48	1.51	2.02	2.25	2.49
Richmond Airport												
Jan. 6	.29	.43	.48	.53	.65	.85	.90	.95	1.00	1.08	1.16	1.20

EXCESSIVE SHORT DURATION RAINFALL

Station and date	Maximum precipitation in inches (5 to 180 minutes)											
	5	10	15	20	30	45	60	80	100	120	150	180
VIRGINIA (Cont'd.)												
Richmond AP (Cont'd.)												
Jan. 15	0.28	0.30	0.32	0.34	0.37	0.39	0.41	0.41	0.41	0.41	0.41	0.41
May 23-24	.32	.49	.56	.58	.68	.80	.85	.92	.92	.95	.95	.95
May 24	.22	.40	.42	.45	.47	.49	.50	.50	.50	.50	.50	.50
May 31	.35	.51	.59	.62	.63	.63	.63	.63	.63	.63	.63	.63
June 12	.25	.46	.58	.69	.74	.79	.81	.82	.83	.85	.86	.86
June 13	.20	.26	.30	.33	.59	.67	.82	.87	1.15	1.24	1.42	1.43
June 20	.17	.30	.40	.45	.50	.55	.63	.69	.76	.81	.88	.92
July 15	.19	.30	.41	.45	.48	.53	.56	.59	.60	.60	.60	.60
July 16	.26	.32	.33	.33	.33	.33	.33	.33	.33	.33	.38	.38
July 16	.31	.38	.43	.44	.44	.44	.44	.44	.44	.44	.44	.44
July 18	.32	.60	.70	.75	.85	.89	.89	.89	.89	.89	.89	.89
Aug. 9	.34	.63	.69	.71	.72	.73	.76	.82	.84	.86	.86	.87
Roanoke Airport												
May 1	.15	.30	.35	.35	.36	.44	.47	.47	.47	.47	.47	.47
June 26	.27	.40	.43	.70	.79	.81	.84	.84	.84	.84	.84	.84
July 23	.27	.33	.34	.36	.36	.36	.36	.36	.36	.36	.36	.36
July 30	.20	.36	.44	.49	.57	.65	.80	.89	.89	.89	.89	.89
Aug. 13	.20	.40	.42	.46	.62	.73	.87	.87	.89	.90	.90	.90
Aug. 21	.35	.70	.76	.90	.96	1.07	1.08	1.08	1.08	1.08	1.08	1.08
WASHINGTON												
Olympia Airport												
Nov. 25	.17	.31	.37	.45	.54	.60	.66	.70	.76	.78	.83	.90
Spokane Airport						None						
Stampede Pass						None						
Tatoosh Island												
Nov. 11	.15	.27	.38	.40	.55	.66	.75	.77	.77	.77	.85	.97
Walla Walla												
May 9	.25	.34	.41	.45	.53	.62	.69	.75	.75	.79	.81	.82
Yakima Airport						None						
WEST INDIES												
San Juan, P. R.												
Mar. 20	.28	.55	.63	.83	1.30	1.65	1.80	1.82	1.83	1.83	1.83	1.83
Apr. 29	.35	.60	.69	.72	.73	.74	.76	.76	.77	.78	.83	.84
May 1	.18	.27	.40	.58	.82	1.04	1.11	1.21	1.23	1.26	1.29	1.30
May 24	.16	.29	.50	.57	.61	.69	.69	.71	.71	.71	.73	.73
Aug. 1	.15	.28	.39	.50	.65	.83	.86	.88	.88	.88	.88	.88
Aug. 19	.25	.43	.58	.60	.67	.87	1.05	1.43	1.52	1.66	1.67	1.70
Sept. 3	.20	.35	.44	.47	.48	.48	.50	.52	.54	.54	.54	.86
Dec. 22	.25	.31	.37	.48	.56	.74	.87	.96	1.04	1.04	1.22	1.43
San Juan, P. R., AP												
May 1	.29	.48	.54	.59	.69	.74	.78	.86	.86	.86	.88	.96
May 28	.17	.30	.38	.47	.47	.48	.48	.48	.48	.48	.48	.48
May 29	.23	.31	.31	.31	.36	.49	.49	.49	.49	.49	.49	.49
June 1	.26	.42	.46	.47	.48	.48	.48	.49	.54	.58	.58	.59
June 18	.26	.40	.51	.67	.86	.90	.90	.90	.90	.91	.91	.91
June 25	.27	.33	.33	.34	.35	.36	.36	.47	.48	.69	.74	.75
June 26	.36	.37	.37	.37	.37	.37	.37	.37	.37	.37	.37	.37
July 10	.35	.54	.68	.69	.71	.83	.83	.87	.88	.88	.92	.92
Aug. 1	.18	.34	.40	.44	.48	.48	.48	.48	.48	.48	.48	.48
Aug. 19	.26	.35	.47	.48	.50	.50	.65	.65	.65	.65	.65	.65
Aug. 22	.25	.49	.54	.56	.62	.89	1.06	1.10	1.12	1.14	1.16	1.16
Aug. 30	.16	.28	.37	.40	.41	.61	.67	.85	.93	.96	.98	.98
Sept. 8	.25	.45	.52	.52	.53	.53	.53	.53	.53	.53	.53	.53
Sept. 9	.23	.34	.39	.40	.47	.47	.48	.48	.48	.48	.48	.48
Nov. 16	.28	.51	.72	.90	1.20	1.52	1.68	1.70	1.77	1.77	1.77	1.77
Dec. 20	.25	.40	.44	.45	.46	.65	.85	.85	.86	.93	1.03	1.13
Dec. 22	.20	.34	.39	.46	.53	.72	.73	.76	.77	.88	1.06	1.10
WEST VIRGINIA												
Charleston Airport												
May 26	.25	.45	.47	.49	.74	.83	.86	.91	.94	.96	.96	.97
June 5	.28	.54	.56	.68	.70	.72	.74	.74	.74	.74	.74	.74
June 11	.15	.30	.42	.50	.53	.53	.53	.55	.72	.72	.72	.72
July 1	.53	.54	.54	.54	.54	.54	.54	.54	.54	.54	.54	.54
July 3	.25	.43	.48	.58	.78	.85	.87	.90	1.06	1.07	1.15	1.22
July 8	.35	.54	.58	.59	.59	.60	.61	.63	.63	.63	.65	.73
July 17	.25	.25	.25	.25	.25	.25	.25	.25	.25	.25	.25	.25
July 25	.30	.33	.33	.33	.33	.33	.35	.37	.40	.43	.43	.43
July 30	.42	.72	.75	.77	.80	.82	.86	.89	.90	.90	.90	.90
Aug. 12-13	.40	.71	.74	.75	.75	.75	.78	.81	.84	1.03	1.05	1.09
Aug. 17	.32	.39	.40	.41	.42	.43	.44	.44	.44	.44	.44	.44
Elkins Airport												
Oct. 4 *	.20	.25	.30	.38	.62	.71	.74	.74	.80	.87	.88	.88
Huntington Airport												
May 26	.16	.32	.35	.37	.42	.42	.44	.47	.50	.56	.60	.65
June 11	.20	.35	.40	.49	.57	.67	.75	.80	.89	.97	1.02	1.10
June 24	.20	.35	.40	.45	.61	.63	.69	.72	.86	.90	.92	.93
July 1	.77	1.13	1.45	1.88	2.40	2.72	2.79	2.95	3.02	3.04	3.06	3.07
July 2	.35	.65	.80	1.02	1.17	1.17	1.17	1.17	1.17	1.17	1.17	1.20
July 3	.25	.43	.58	.64	.67	.72	.74	.78	.78	.78	.78	.83
July 21	.17	.34	.38	.45	.52	.52	.52	.52	.52	.52	.52	.52
Parkersburg												
May 26	.55	.95	1.15	1.17	1.20	1.33	1.45	1.50	1.56	1.63	1.74	1.78
July 8	.17	.30	.33	.34	.35	.36	.37	.37	.37	.37	.37	.37
July 12	.30	.40	.54	.57	.72	.80	.90	.98	.98	.98	.98	.98
July 25	.20	.33	.34	.34	.34	.34	.34	.34	.34	.34	.34	.34
Aug. 8	.15	.30	.40	.50	.65	.75	.97	.98	.98	.98	.98	.98
Sept. 4	.20	.32	.43	.53	.56	.57	.58	.58	.58	.58	.58	.63
Sept. 14	.27	.35	.37	.38	.38	.38	.38	.51	.51	.51	.54	.77
WISCONSIN												
Green Bay Airport												
Apr. 30	.12	.20	.26	.33	.48	.71	.75	.76	.76	.76	.76	.88
May 5	.28	.43	.45	.49	.53	.54	.58	.59	.59	.60	.63	.70
June 18	.23	.37	.40	.42	.44	.47	.49	.56	.61	.64	.69	.78
June 22	.35	.60	.64	.68	.72	.73	.73	.73	.73	.73	.73	.73
July 20	.29	.43	.44	.45	.60	.73	.80	.85	.88	.90	.90	.90
Aug. 7	.28	.30	.30	.30	.30	.30	.30	.30	.30	.30	.30	.30

* Record began April 17.

Station and date	Maximum precipitation in inches (5 to 180 minutes)											
	5	10	15	20	30	45	60	80	100	120	150	180
WISCONSIN (Cont'd.)												
Green Bay AP (Cont'd.)												
Sept. 3	0.62	0.79	0.83	0.97	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Sept. 13	.34	.48	.52	.55	.63	.95	.97	.98	.98	.99	1.01	1.08
La Crosse AP												
May 5	.20	.35	.36	.39	.47	.50	.51	.68	.76	.90	.91	.91
June 17	.36	.42	.42	.43	.43	.44	.44	.45	.54	.54	.54	.54
Aug. 30	.27	.48	.74	.89	1.05	1.12	1.16	1.21	1.29	1.33	1.39	1.56
Sept. 16	.29	.34	.37	.38	.41	.42	.42	.42	.42	.42	.42	.42
Madison AP												
May 12	.20	.37	.44	.51	.62	.66	.75	.91	1.06	1.14	1.15	1.18
June 10	.30	.53	.65	.72	.80	.82	.85	.88	.90	.90	.90	.90
July 2	.18	.31	.40	.46	.50	.50	.50	.50	.50	.50	.50	.50
Aug. 15	.21	.40	.56	.57	.57	.57	.57	.57	.57	.57	.57	.57
Milwaukee AP												
July 10	.16	.30	.40	.46	.59	.86	.88	.89	.89	.89	.89	.89
Aug. 24	.32	.36	.43	.64	.76	.80	.82	.84	.88	.90	.91	.91
Oct. 3	.22	.32	.41	.46	.54	.66	.90	1.04	1.14	1.16	1.35	1.44
WYOMING												
Casper Airport												
Sept. 21	.30	.44	.54	.56	.60	.68	.74	.78	.81	.87	.94	.98
Cheyenne Airport												
July 1	.30	.53	.63	.63	.66	.70	.77	.77	.77	.77	.77	.77
July 28	.18	.32	.46	.46	.46	.46	.46	.46	.48	.49	.49	.49
Lander Airport												
July 26	.29	.29	.29	.29	.29	.29	.29	.29	.29	.29	.29	.29
Sheridan Airport						None						
DELAYED DATA												
FLORIDA												
Apalachicola												
Jan. 21, 1958	0.42	0.46	0.48	0.51	0.53	0.60	0.67	0.74	0.79	0.82	0.84	0.87
Feb. 27	.30	.39	.48	.52	.53	.57	.57	.59	.59	.59	.60	.77
Mar. 2	.23	.29	.38	.40	.41	.61	.72	.80	.82	.82	.84	.84
Mar. 5	.40	.77	1.11	1.32	1.53	1.67	1.73	1.77	1.86	1.90	2.03	2.15
Apr. 9	.19	.28	.41	.46	.49	.55	.60	.66	.68	.74	.96	1.23
Apr. 9	.42	.79	1.10	1.30	1.50	1.66	1.85	2.27	2.86	3.17	3.50	3.50
Apr. 10	.26	.51	.77	.95	1.33	1.64	1.82	1.90	1.91	1.91	1.92	1.93
Apr. 21	.21	.37	.47	.55	.57	.58	.58	.58	.58	.58	.58	.59
May 11	.23	.44	.58	.59	.59	.67	.93	1.22	1.42	1.56	1.73	1.77
May 19	.24	.33	.37	.37	.40	.42	.43	.49	.58	.59	.77	.78
June 19	.24	.32	.42	.49	.63	.73	.99	1.11	1.15	1.34	1.45	1.52
June 22	.19	.32	.41	.43	.55	.63	.64	.64	.64	.65	.65	.65
June 23	.33	.50	.60	.68	1.11	1.24	1.24	1.25	1.30	1.31	1.32	1.32
July 4	0.38	0.70	0.97	1.12	1.27	1.57	1.62	1.68	1.82	1.85	1.88	1.88
July 6	.42	.79	1.01	1.12	1.18	1.21	1.30	1.44	1.49	1.49	1.57	1.57
July 12	.24	.29	.38	.38	.39	.39	.39	.39	.39	.39	.39	.39
July 13	.40	.71	.97	1.08	1.18	1.20	1.27	1.27	1.29	1.32	1.35	1.37
July 16	.31	.60	.88	1.01	1.05	1.09	1.10	1.10	1.10	1.11	1.13	1.14
July 17	.26	.47	.56	.72	.99	1.40	1.74	1.93	2.08	2.15	2.17	2.50
July 27	.16	.32	.47	.56	.59	.60	.60	.60	.60	.60	.60	.60
July 28	.22	.39	.46	.48	.57	.58	.59	.59	.59	.59	.59	.59
July 30	.31	.42	.46	.47	.47	.47	.47	.47	.47	.47	.47	.47
Aug. 3	.23	.32	.34	.37	.39	.41	.45	.78	.83	.86	.86	.86
Aug. 26	.24	.38	.38	.38	.39	.53	.58	.63	.70	.77	.79	.87
Sep. 14	.29	.36	.48	.58	.71	.94	1.28	1.30	1.42	1.55	1.77	1.80
Dec. 14	.24	.41	.51	.62	.78	.92	1.22	1.40	1.60	1.69	1.93	1.96
CORRECTIONS												
Atlanta, Ga.												
Nov. 1, 1958	.21	.31	.37	.39	.41	.44	.46	.47	.48	.52	.53	.53
June 23, 1961	.30	.43	.50	.58	.70	.74	.77	.79	.84	.85	.85	.85
Feb. 22, 1962	.23	.39	.44	.50	.56	.62	.73	.76	.85	.92	1.08	1.20
Tatoosh Island, Washington												
Feb. 8, 1961	.25	.33	.35	.40	.44	.50	.54	.60	.72	.78	.78	.82
Feb. 9, 1961	.15	.23	.30	.41	.53	.64	.74	.88	.91	.94	1.02	1.05

SUNSHINE, AMOUNT AND PERCENT

YEAR 1962

Station	January		February		March		April		May		June		July		August		September		October		November		December		Annual	
	Hours	Percent of possible	Hours	Percent of possible	Hours	Percent of possible	Hours	Percent of possible	Hours	Percent of possible	Hours	Percent of possible	Hours	Percent of possible	Hours	Percent of possible	Hours	Percent of possible	Hours	Percent of possible	Hours	Percent of possible	Hours	Percent of possible	Hours	Percent of possible
ALABAMA																										
Birmingham	129	41	177	58	175	47	242	62	371	86	281	65	300	69	304	73	255	69	260	74	147	47	145	47	2786	66
Montgomery	147	46	161	52	214	58	261	67	357	83	229	54	250	58	286	69	257	69	256	73	156	50	161	52	2735	62
ALASKA																										
Anchorage	64	31	93	37	207	57	225	51	233	43	237	41	284	50	200	41	167	43	114	37	115	53	65	37	2004	43
Juneau	65	29	147	56	155	42	188	44	275	53	77	14	214	40	107	23	86	22	39	12	5	2	48	24	1406	30
Nome	43	25	20	12	155	42	248	54	106	18	331	52	202	33	162	32	30	8	112	37	40	21	50	39	1499	29
ARIZONA																										
Phoenix	249	78	238	77	320	86	375	96	415	96	422	98	415	95	399	96	308	83	328	93	260	83	258	83	3987	90
Prescott	241	77	193	63	305	82	355	91	387	89	399	92	354	80	336	81	274	74	310	88	251	81	244	80	3649	82
Tucson	269	84	243	79	318	86	378	97	421	98	410	96	344	79	361	88	299	81	326	93	262	83	247	79	3878	87
Yuma	291	91	242	78	351	94	374	96	416	97	413	96	407	96	383	93	325	88	341	97	274	87	269	86	4086	92
ARKANSAS																										
Ft. Smith	149	48	172	56	211	57	202	51	335	77	240	55	302	61	417	78	178	48	162	46	151	49	160	53	2679	58
Little Rock	137	44	159	52	216	58	228	58	352	81	241	56	315	71	313	75	167	45	164	47	144	46	166	51	2602	58
CALIFORNIA																										
Eureka (U)	208	70	145	49	156	42	227	57	274	61	272	60	248	54	186	44	144	39	140	41	146	49	135	47	2281	51
Fresno	149	48	125	41	302	81	384	97	376	86	411	93	441	99	412	98	367	99	304	87	252	82	173	58	3696	83
Los Angeles (U)	262	83	158	51	264	71	299	77	295	68	258	60	360	82	374	90	297	80	244	70	229	73	244	79	3284	74
Red Bluff	236	79	132	44	257	69	360	90	381	85	436	97	449	98	401	94	350	94	229	66	217	73	192	66	3640	82
Sacramento	192	63	120	40	255	69	371	93	388	88	430	97	450	100	416	98	352	94	221	64	222	73	100	34	3517	79
San Diego	254	80	157	51	230	62	238	61	243	57	189	44	305	70	311	75	248	67	236	67	195	62	201	65	2807	63
San Francisco (U)	241	79	171	56	229	62	329	83	348	79	297	66	257	57	291	69	209	56	220	63	221	72	106	36	2919	66
COLORADO																										
Denver	230	76	197	66	258	70	268	67	318	71	308	69	355	78	328	77	282	76	288	83	186	62	214	73	3232	73
Grand Junction	209	69	142	47	266	72	308	78	305	69	387	87	378	83	361	85	307	82	291	84	229	76	232	79	3415	77
Pueblo	242	79	212	70	306	82	280	71	353	80	335	76	346	77	351	83	276	74	307	89	220	72	260	88	3488	78
CONNECTICUT																										
Hartford	169	57	129	42	264	71	236	59	277	61	270	59	284	62	279	65	234	62	164	48	151	51	150	53	2607	58
New Haven	157	59	131	44	267	72	234	58	290	65	301	66	311	68	278	65	234	63	185	54	168	57	146	51	2702	61
DISTRICT OF COLUMBIA																										
Washington Nat'l. Airport	139	46	120	40	240	65	245	62	269	61	269	60	288	64	303	72	227	61	235	68	159	46	150	51	2644	59
FLORIDA																										
Apalachicola (U)	223	69	228	73	277	74	333	86	398	94	310	74	264	61	292	71	188	51	310	87	---	--	212	65	---	--
Jacksonville	123	38	164	53	190	51	301	78	315	74	208	49	220	51	221	54	188	51	267	75	220	69	208	66	2625	59
Key West	237	71	277	87	299	80	315	82	334	81	280	68	318	76	255	63	208	56	221	62	221	67	242	73	3207	72
Lakeland (U)	195	59	225	72	221	59	285	74	314	75	256	62	260	61	206	51	215	58	271	76	182	56	198	62	2828	64
Miami Beach	187	56	249	76	%266	81	193	51	302	73	192	47	257	61	196	49	169	46	240	67	177	54	210	64	2638	59
Pensacola (U)	177	55	199	64	242	65	305	79	369	87	307	73	296	69	296	72	205	55	275	78	191	60	173	55	3035	68
Tampa	220	67	247	79	234	63	276	72	283	68	244	58	260	61	218	54	220	59	285	80	199	62	200	62	2886	65
GEORGIA																										
Atlanta	140	44	184	60	201	54	243	62	361	84	299	69	319	73	321	77	255	69	290	82	179	57	178	58	2970	67
Macon	149	47	202	66	219	59	249	64	369	86	245	57	287	66	284	69	233	63	263	75	173	55	173	56	2846	64
Savannah	195	61	193	62	234	63	302	78	355	83	264	62	322	74	288	70	223	60	264	75	161	51	198	63	2999	67
HAWAII																										
Hilo	192	56	181	56	146	38	195	53	83	20	130	32	151	37	175	44	90	25	225	62	151	45	148	44	1867	46
Honolulu	225	66	204	63	175	47	285	75	327	80	346	86	371	90	356	89	298	81	211	58	174	52	182	54	3154	71
Kahului	---	--	---	--	290	78	289	76	298	73	342	85	301	73	313	79	302	82	281	78	255	76	236	70	----	--
Lihue	194	57	184	57	193	52	236	62	235	58	275	68	308	74	285	72	314	85	235	65	168	50	187	56	2814	63
IDAHO																										
Boise	151	52	96	33	258	70	346	86	329	72	386	84	406	87	365	85	334	89	247	72	172	59	150	54	3240	73
Pocatello	142	49	140	48	229	62	293	73	225	50	322	70	370	80	340	79	303	81	248	72	157	54	151	54	2920	62
ILLINOIS																										
Cairo (U)	152	49	158	52	183	49	238	60	316	72	311	71	347	78	310	74	240	65	199	57	127	41	174	58	2755	62
Chicago (Midway)	111	38	64	21	163	44	260	65	366	81	349	77	330	72	307	72	241	64	182	53	108	37	108	38	2589	58
Moline	169	57	99	33	191	51	256	64	267	59	344	76	261	57	304	71	271	72	174	51	124	42	147	51	2607	58
Peoria	169	57	94	31	148	40	258	65	273	61	322	71	286	62	336	79	269	72	212	61	147	49	152	53	2766	60
Springfield	172	57	136	45	162	44	253	64	320	72	325	72	308	68	331	78	258	69	207	60	151	50	164	56	2787	62
INDIANA																										
Evansville	136	44	139	46	163	44	270	68	366	83	339	76	369	82	347	82	249	67	234	67	145	48	155	52	2912	65
Ft. Wayne	146	49	122	41	178	48	288	72	297	66	348	77	291	63	322	75	262	70	172	50	97	33	120	42	2643	59
Indianapolis	108	36	84	28	177	48	276	69	316	71	330	74	307	67	302	71	231	62	257	74	152	51	185	63	2725	61
IOWA																										
Burlington	182	61	124	42	190	51	279	70	309	69	361	80	314	69	338	79	280	75	221	64	185	62	184	64	2967	66
Des Moines	143	48	88	30	196	53	224	56	296	66	319	70	292	64	292	68	250	67	196	57	124	42	117	41	2537	57
Sioux City	184	63	127	43	178	48	268	67	237	52	279	61	306	66	299	70	236	63	198	58	159	54	154	54	2625	59
KANSAS																										
Concordia (U)	195	65	180	60	218	59	295	74	+364	82	311	69	334	74	346	82	210	56	237	68	146	49	152	52	2988	67
Dodge City	206	67	208	69	281	76	263	67	352	80	295	67	340	76	377	90	200	54	256	74	199	65	188	63	3165	71
Topeka	199	65	140	47	211	57	251	63	317	71	278	62	312	69	350	83	184	49	204	59	168	56	142	48	2756	62
Wichita	174	57	164	54	239	65	232	59	317	72	256	58	293	65	359	85	178	48	226	65	145	48	139	47	2722	61
KENTUCKY																										
Louisville	119	39	83	28	130	35	198	50	278	63	245	55	244	54	271	64	171	46	184	53	112	37	124	42	2159	49
LOUISIANA																										
New Orleans (701 Loyola)	---	--	---	--	---	--	---	--	---	--	---	--	---	--	---	--	---	--	239	67	‡176	55	154	49	----	--
Shreveport	165	52	162	52	243	65	208	53	336	78	274	64	362	83	341	83	261	70	227	64	172	55	171	55	2922	66
MAINE																										
Portland	173	59	133	45	222	60	234	58	276	61	301	65	256	55	221	51	209	56	163	48	129	44	168	60	2485	57
MARYLAND																										
Baltimore	139	46	115	38	243	65	238	60	262	59	223	50	269	59	274	65	194	52	226	65	144	48	140	48	2467	55
MASSACHUSETTS																										
Blue Hill Obs. (R) 1/	159	56	132	46	212	59	221	57	260	59	264	60	272	61	233	56	216	60	182	55	141	50	153	56	2445	57
Boston	186	63	163	55	247	67	244	61	290	64	294	64	310	67	264	61	233	62	202	59	152	52	177	62	2762	62
Nantucket	144	48	98	33	225	61	251	63	286	64	287	63	338	74	223	52	204	[illegible]	[illegible]	60	128	43	101	35	2491	56
MICHIGAN																										
Alpena	135	47	122	42	216	58	216	53	318	69	323	69	366	78	309	71	233	62	155	46	147	51	159	58	2699	60
Detroit City AP	116	39	82	28	189	51	262	65	266	59	271	59	269	58	287	67	214	57	166	48	116	39	115	41	2353	53
Escanaba (U)	101	36	134	46	216	58	207	51	231	50	313	67	294	62	257	59	169	45	113	33	69	24	97	32	2201	45
Grand Rapids	63	22	80	27	165	45	241	60	274	60	306	67	231	50	315	73	199	53	122	36	91	31	97	37	2184	49
Lansing	111	38	117	40	236	64	269	67	327	72	356	78	331	71	327	76	277	74	237	69	152	52	142	50	2882	64
Marquette (U)	106	38	96	33	224	61	248	61	254	55	308	65	342	72	256	58	213	57	127	38	91	32	76	28	2341	52

See reference notes at end of table.

SUNSHINE, AMOUNT AND PERCENT

YEAR 1962

Station	January		February		March		April		May		June		July		August		September		October		November		December		Annual	
	Hours	Percent of possible	Hours	Percent of possible	Hours	Percent of possible	Hours	Percent of possible	Hours	Percent of possible	Hours	Percent of possible	Hours	Percent of possible	Hours	Percent of possible	Hours	Percent of possible	Hours	Percent of possible	Hours	Percent of possible	Hours	Percent of possible	Hours	Percent of possible
MICHIGAN (Cont'd.)																										
Sault Ste. Marie	91	32	131	45	231	63	197	48	251	54	311	66	302	63	249	57	177	47	115	34	103	36	90	34	2248	50
MINNESOTA																										
Duluth	106	38	118	41	155	42	224	55	164	35	278	59	238	50	261	59	210	56	136	40	92	33	117	44	2099	47
Minneapolis-St. Paul	127	45	122	42	132	36	233	58	179	39	258	55	233	49	291	67	207	55	178	52	106	37	105	38	2171	49
MISSISSIPPI																										
Jackson	154	48	157	51	214	57	251	64	356	83	293	69	373	86	325	79	290	78	254	72	162	51	160	51	2989	67
Vicksburg (U)	145	45	146	47	211	57	#250	64	#359	84	#307	72	385	88	351	85	303	82	267	76	179	57	184	59	3087	69
MISSOURI																										
Columbia	163	54	133	44	174	47	253	64	324	73	273	61	294	65	381	90	184	49	207	60	148	49	188	64	2722	61
Kansas City	164	54	140	46	264	71	265	67	319	72	291	65	313	69	336	79	168	45	206	60	172	57	157	53	2795	63
St. Louis	153	50	134	44	141	38	118	30	298	67	281	63	311	69	336	79	191	51	171	49	125	41	171	58	2430	48
Springfield	159	52	153	50	221	59	236	60	342	78	279	63	311	69	333	79	195	52	225	65	169	55	183	61	2806	63
MONTANA																										
Billings	196	69	141	48	273	74	293	72	271	59	347	74	368	77	335	77	280	74	214	63	156	55	164	61	3038	68
Great Falls	141	51	127	44	254	69	253	62	196	42	332	70	310	64	308	70	268	71	177	53	136	49	118	45	2620	59
Havre	175	64	151	53	257	70	270	66	240	51	337	70	343	71	305	69	278	74	180	54	125	45	137	53	2798	63
Helena	167	60	132	46	237	64	266	65	244	52	351	74	333	70	306	70	264	70	207	61	164	58	168	63	2839	64
Missoula	117	42	125	43	194	52	277	68	236	51	374	79	409	85	352	80	282	75	181	54	72	26	59	22	2678	60
NEBRASKA																										
Lincoln (U)	197	66	136	46	192	52	283	71	321	72	285	63	361	79	336	79	238	64	219	63	145	49	146	51	2859	64
North Platte	188	63	168	56	222	60	289	72	278	62	268	59	342	75	370	87	208	56	258	75	177	59	180	63	2948	66
Omaha	189	64	113	38	182	49	260	65	304	68	298	66	324	71	318	74	247	66	213	62	160	54	151	53	2759	62
Valentine	212	72	170	58	243	66	298	74	252	55	282	62	335	72	363	84	256	68	257	75	189	64	196	70	3053	66
NEVADA																										
Ely	217	72	114	37	254	69	322	81	284	64	384	86	381	84	389	92	347	93	325	94	235	78	265	90	3517	79
Las Vegas	262	84	200	66	324	87	363	92	372	85	404	92	411	92	388	93	346	93	315	90	256	83	258	85	3899	88
Reno	211	70	151	50	251	68	322	81	308	69	384	86	404	89	400	94	343	92	283	82	217	72	194	66	3468	78
Winnemucca	186	65	111	37	169	46	338	85	334	74	386	85	419	90	384	90	356	95	333	97	280	94	274	95	3570	80
NEW HAMPSHIRE																										
Concord	182	62	136	46	234	63	221	55	269	59	276	60	266	57	229	50	189	50	164	48	143	49	171	61	2480	56
Mt. Washington Obs. (R)	106	36	130	43	160	43	136	33	246	53	222	47	152	32	170	39	94	25	100	29	156	53	131	46	1803	40
NEW JERSEY																										
Atlantic City Exp. Center	131	43	106	35	219	59	260	65	216	49	259	58	290	64	285	67	235	63	191	55	127	70	151	52	2470	55
Trenton (U)	164	55	136	46	262	71	252	63	288	65	293	65	268	59	277	65	230	62	202	58	172	57	157	54	2701	61
NEW MEXICO																										
Albuquerque	232	74	241	79	279	75	339	87	401	92	398	92	309	70	367	88	268	72	294	84	240	77	257	84	3625	82
Roswell	---	--	---	--	275	74	308	79	399	93	371	86	274	63	371	90	---	--	---	--	198	63	191	62	----	--
NEW YORK																										
Albany	144	49	112	38	218	59	231	58	296	65	298	65	312	67	275	64	232	62	177	52	149	51	153	54	2597	59
Binghamton	106	36	87	29	219	59	224	56	326	72	279	61	333	72	260	61	150	40	136	40	116	39	95	33	2331	52
Buffalo	75	25	76	26	185	50	216	54	319	70	287	63	333	72	315	73	201	54	145	42	129	44	113	40	2394	54
New York Central Park Obs.	166	55	122	41	276	75	231	58	297	66	295	65	286	62	257	60	224	60	171	50	169	57	167	58	2661	60
Rochester	127	43	107	36	210	57	263	65	337	74	310	67	332	71	299	69	188	50	136	40	119	41	134	48	2562	57
Syracuse	177	61	147	50	208	56	195	48	299	66	323	70	364	78	318	74	174	46	128	37	120	41	99	35	2552	57
NORTH CAROLINA																										
Asheville (U)	161	52	171	56	175	47	230	59	268	62	214	49	312	70	281	67	220	59	253	72	138	45	182	60	2605	59
Cape Hatteras (R)	---	--	190	62	219	59	301	77	312	72	262	60	311	70	285	68	226	61	---	--	---	--	---	--	---	--
Charlotte	111	36	149	49	197	53	281	72	303	70	212	49	296	67	308	74	249	67	251	72	156	50	199	65	2712	61
Greensboro	112	36	131	43	191	52	265	67	283	65	225	52	261	59	264	63	201	54	249	71	155	50	160	53	2497	56
Raleigh-Durham	130	42	144	47	192	52	262	67	259	59	187	43	244	55	246	59	197	53	201	58	125	41	169	56	2356	53
Wilmington	157	50	179	58	195	52	281	71	287	66	220	51	287	65	314	76	274	74	242	69	146	47	181	59	2763	62
NORTH DAKOTA																										
Bismarck	156	56	155	54	212	57	290	71	165	35	300	63	388	81	345	79	277	73	202	60	106	38	122	46	2718	57
Devils Lake (U)	143	52	172	60	202	55	285	70	147	31	322	67	334	69	327	74	267	71	203	61	126	45	128	49	2656	59
Fargo	114	41	100	35	150	40	269	66	120	26	211	45	288	60	362	82	254	67	221	65	108	38	129	48	2326	52
Williston (U)	99	36	#123	43	185	50	264	64	173	37	319	66	296	61	318	71	277	73	184	55	114	41	136	52	2488	56
OHIO																										
Cincinnati Obs.	139	46	99	33	125	31	234	59	286	64	295	66	346	76	378	89	265	71	186	54	114	38	139	47	2606	59
Cleveland	143	48	97	33	176	48	266	67	327	73	318	70	309	67	332	78	203	54	151	44	89	30	69	24	2480	56
Columbus	119	40	79	26	135	36	238	60	304	68	305	68	319	70	310	73	226	60	155	45	99	33	119	41	2408	54
Dayton	135	45	90	30	141	38	249	62	211	47	261	58	282	62	322	76	243	65	148	43	110	37	104	36	2296	52
Sandusky (U)	175	59	103	35	201	54	304	76	334	74	335	74	331	72	339	79	222	59	215	63	147	50	154	54	2860	64
Toledo	150	51	89	30	151	41	261	65	300	67	324	71	271	59	313	73	230	61	199	58	109	37	129	45	2526	57
OKLAHOMA																										
Oklahoma City	185	59	208	68	304	82	216	55	347	80	322	74	343	77	373	89	186	50	228	65	167	54	171	56	3050	68
Tulsa	153	49	163	54	242	65	226	57	346	79	259	59	254	57	344	82	181	49	220	63	162	52	167	55	2717	61
OREGON																										
Portland	85	30	104	36	117	32	182	45	124	27	295	63	322	68	230	53	200	53	122	36	57	20	67	25	1905	43
Roseburg	107	37	85	29	162	44	236	59	197	43	367	80	425	91	326	76	275	73	117	34	91	31	82	29	2470	55
PACIFIC AREA																										
Guam (Taguac) (R)	237	67	170	52	282	75	212	57	288	73	233	60	202	51	195	50	194	53	149	41	129	49	---	--	----	--
Johnston Island	317	91	279	86	---	--	---	--	---	--	---	--	---	--	---	--	---	--	---	--	*152	75	265	77	----	--
Koror	150	41	122	37	202	54	203	55	130	34	155	41	174	45	236	62	175	48	213	57	203	57	190	52	2153	49
Majuro	237	65	170	70	229	61	266	72	263	68	230	61	215	55	254	66	181	50	204	55	141	40	247	68	2637	61
Ponape	147	40	148	44	184	49	204	55	176	46	201	53	154	40	187	49	152	42	194	52	181	51	186	51	2114	48
Truk	201	55	170	51	143	38	131	35	70	18	67	18	35	8	79	20	45	12	125	35	100	28	96	26	1262	29
Yap	234	68	189	59	282	76	295	79	294	75	329	86	290	74	317	82	148	40	175	67	207	58	213	64	2973	68
PENNSYLVANIA																										
Harrisburg	123	41	115	39	250	67	236	59	260	58	288	64	311	68	291	68	197	53	199	58	132	44	131	45	2533	57
Philadelphia	160	53	113	38	270	73	234	59	265	58	259	58	259	57	267	63	208	56	193	56	162	54	153	52	2543	59
Pittsburgh (U)	78	26	58	19	127	34	187	47	188	42	269	60	234	51	238	56	160	43	137	40	106	35	74	25	1856	--
Pittsburgh	133	44	93	31	173	47	213	54	283	63	273	61	283	62	307	72	203	54	177	51	118	40	141	49	2397	52
Reading (U)	136	45	125	42	265	72	250	63	288	64	299	66	285	62	294	69	198	53	175	51	133	45	133	46	2581	58
Scranton	130	44	113	38	213	57	212	53	303	67	285	63	261	57	228	53	173	46	160	46	120	40	112	39	2310	54
PUERTO RICO																										
San Juan (Isla Verde)	216	62	189	59	206	55	228	61	195	48	156	39	250	62	244	62	199	54	250	69	216	64	230	67	2579	58
RHODE ISLAND																										
Providence	176	59	149	50	250	67	241	60	262	58	276	61	257	56	208	49	222	59	175	51	161	54	158	55	2535	57
SOUTH CAROLINA																										
Charleston	159	50	200	65	201	54	302	78	341	79	297	69	294	67	322	78	204	55	262	74	169	54	196	63	2947	66
Columbia	144	46	163	53	179	48	277	71	310	72	173	40	235	53	255	62	214	58	253	72	155	50	194	63	2552	57

See reference notes at end of table.

SUNSHINE, AMOUNT AND PERCENT

Station	January		February		March		April		May		June		July		August		September		October		November		December		Annual	
	Hours	Percent of possible	Hours	Percent of possible	Hours	Percent of possible	Hours	Percent of possible	Hours	Percent of possible	Hours	Percent of possible	Hours	Percent of possible	Hours	Percent of possible	Hours	Percent of possible	Hours	Percent of possible	Hours	Percent of possible	Hours	Percent of possible	Hours	Percent of possible
SOUTH CAROLINA (Cont'd.)																										
Greenville	106	34	179	59	187	50	271	69	298	69	214	49	268	61	277	66	218	59	**257	73	169	54	203	66	2647	--
SOUTH DAKOTA																										
Huron	151	53	131	45	157	26	266	66	207	45	269	58	309	66	348	80	266	71	234	69	148	51	139	50	2625	59
Rapid City	170	59	156	53	249	67	260	64	184	40	221	48	294	63	331	77	234	62	254	74	177	61	152	55	2682	56
TENNESSEE																										
Chattanooga	127	41	173	57	166	45	222	56	358	82	261	60	298	67	316	76	229	62	247	70	148	48	145	47	2690	60
Knoxville	118	38	151	50	202	54	233	59	302	69	248	57	256	58	291	70	202	54	196	56	121	39	101	33	2421	54
Memphis	151	48	167	55	224	60	277	71	368	85	281	65	356	81	348	83	221	59	245	70	165	53	171	56	2974	67
Nashville	134	43	147	48	140	38	222	56	343	79	274	63	306	69	297	71	192	52	221	63	154	50	153	50	2583	58
TEXAS																										
Abilene	203	64	231	75	227	61	264	68	301	70	287	67	324	74	366	89	259	70	251	71	175	55	180	58	3068	71
Amarillo	222	71	262	86	278	75	249	63	380	87	288	66	347	78	372	89	231	62	282	81	202	65	229	75	3342	75
Austin	149	46	181	58	222	60	186	48	267	63	274	65	374	87	344	84	217	59	176	50	162	51	156	49	2708	61
Brownsville	160	48	156	49	171	46	212	55	288	69	251	61	361	86	304	75	248	67	225	63	174	53	88	27	2638	59
Corpus Christi	171	52	194	62	216	58	253	66	315	75	258	62	404	97	308	76	256	61	251	70	189	59	96	30	2911	65
Dallas	179	56	194	63	243	65	203	52	288	67	255	60	297	68	357	86	243	65	227	64	175	57	187	60	2848	64
El Paso	255	80	268	87	294	79	353	91	407	95	400	94	312	72	381	92	249	67	299	85	244	77	240	77	3702	83
Galveston (U)	169	52	179	57	268	72	293	76	368	87	337	80	426	100	352	86	312	84	307	86	234	73	152	48	3397	67
Houston	147	45	169	54	211	57	233	60	344	81	303	72	361	84	342	84	261	70	268	76	196	61	163	51	2998	67
Port Arthur	150	46	148	47	204	55	204	53	337	80	243	58	366	85	325	80	234	63	254	72	174	54	134	42	2773	62
San Antonio	156	48	181	58	216	58	216	56	262	62	268	64	365	85	348	85	237	64	212	60	181	57	152	48	2794	63
UTAH																										
Salt Lake City	127	43	84	28	249	67	280	70	292	65	347	83	393	86	378	89	341	91	276	80	149	50	133	46	3049	69
VERMONT																										
Burlington	170	59	124	41	247	67	200	50	280	61	284	61	288	61	249	57	180	48	112	33	135	47	102	37	2371	53
VIRGINIA																										
Lynchburg	118	38	121	39	182	49	226	57	220	50	234	53	252	56	276	66	212	57	222	64	139	46	168	56	2370	53
Norfolk	140	45	119	39	218	59	264	67	---	--	223	51	279	62	293	70	217	58	215	62	121	40	172	56	----	--
Richmond	114	37	112	37	206	56	268	68	278	63	224	51	287	64	293	70	218	59	215	62	121	40	152	51	2488	56
WASHINGTON																										
Seattle (U)	79	28	121	42	153	41	219	53	187	40	327	69	311	65	226	51	202	54	130	39	46	16	53	20	2054	46
Spokane	107	39	126	44	193	52	283	69	249	53	385	81	405	84	322	73	327	87	148	44	64	23	39	15	2648	59
Tatoosh Island (R)	81	30	114	40	170	46	115	28	155	33	218	45	196	40	139	32	193	51	131	39	75	27	66	25	1653	37
Walla Walla (U)	78	28	108	37	156	42	241	59	191	41	393	83	420	89	331	76	299	79	163	48	68	24	17	6	2465	55
WEST VIRGINIA																										
Parkersburg (U)	107	35	69	23	158	43	172	43	262	59	260	58	205	45	324	76	186	50	169	49	100	33	91	31	2103	47
WISCONSIN																										
Green Bay	102	35	106	36	166	45	213	53	223	49	287	62	257	55	293	67	184	49	132	39	67	23	106	39	2136	48
Madison	128	44	98	33	186	50	235	59	225	50	277	60	202	43	296	69	211	56	167	49	96	33	110	33	2231	50
Milwaukee	125	43	68	23	148	40	253	63	257	57	282	61	252	54	313	73	249	67	195	57	112	38	105	37	2359	53
WYOMING																										
Cheyenne	187	64	166	56	241	65	259	65	225	50	236	52	283	62	297	70	256	68	261	76	207	70	201	70	2819	63
Lander	210	72	174	59	301	81	324	81	257	57	345	75	350	75	385	90	326	87	283	83	193	66	208	74	3356	75
Sheridan	179	62	141	48	251	68	298	74	229	50	313	67	332	71	328	76	281	76	225	66	118	41	161	58	2856	64

Data from airport unless otherwise specified.
"U" indicates Urban, "R" indicates Rural, sites.
1/ From Campbell-Stokes recorder uncorrected for low sun.
% Data from City Office from March.
‡ Estimated.
** Station moved to Greer, 3 mi. S., Oct. 15, now Greenville-Spartanburg.
† Data from airport station from May 16.
* 13th thru the 30th.
# Data from airport station from Jan. 19.

ANNUAL CLIMATOLOGICAL DATA

ENGLISH UNITS

State and Station	Temperature							Heating degree days	Precipitation						Relative humidity				Wind					Possible sunshine	Average sky cover sunrise to sunset	Number of days										
	Averages			Extremes								Snow, Sleet									Fastest mile					Sunrise to sunset							Max temp		Min temp	
	Daily maximum	Daily minimum	Annual	Highest	Date	Lowest	Date		Total	Greatest in 24 hours	Date (s)	Total	Greatest in 24 hours	Date (s)	1 00am EST	7 00am EST	1 00pm EST	7 00pm EST	Average speed	Prevailing direction	Speed	Direction	Date			Clear, 0-0.3	Partly cloudy, 0.4-0.7	Cloudy, 0.8-1.0	Precipitation .01 inch or more	Snow, Sleet 1.0 inch or more	Thunderstorms	Heavy fog	90 °F and above	32 °F and below	32 °F and below	0 °F and below
ALABAMA	°F	°F	°F	°F		°F		Base 65 °F	In	In		In	In		%	%	%	%	M.p.h.		M.p.h.			%	Tenths											
BIRMINGHAM	75.4	52.7	64.1	102	JUL. 23	1	DEC. 13+	2733	48.14	2.90	NOV. 8-9	3.8	3.8	JAN. 9-10	76	80	52	58	8.4	ENE	43	N	AUG. 5	63	5.7	120	90	155	109	1	52	10	104	5	41	0
HUNTSVILLE	72.7	50.2	61.5	101	JUL. 23+	- 2	JAN. 11	3353	52.57	2.63	FEB. 22-23	8.2	4.9	JAN. 9-10	77	82	53	58	7.9	SE	39	ESE	DEC. 24		5.8	116	94	155	115	2	57	10	94	5	65	3
MOBILE	78.0	58.0	68.0	99	MAY 20	7	JAN. 11	1729	50.78	4.37	MAR. 30-31	T	T	JAN. 10+	84	86	56	69	8.2	N	40	W	MAR. 31		5.7	100	125	140	127	0	81	40	105	4	21	0
MONTGOMERY	77.2	54.5	65.9	99	SEP. 5+	5	DEC. 13	2297	47.47	4.27	APR. 11-12	1.0	1.0	JAN. 9	80	84	54	61	7.5	ENE	34	N	JUL. 7+	62	5.3	124	114	127	96	1	63	17	113	5	34	0
ALASKA																																				
ANCHORAGE	42.6	28.2	35.4	75	JUL. 6	-22	JAN. 27	10683	14.57	1.84	JUN. 12-13	38.9	6.7	MAR. 17-18	80	76	65	74	5.3	N	36*	N	DEC. 9	43	7.3	66	60	239	99	14	0	32	B 16	112	202	36
ANNETTE	52.3	41.3	46.7	81	JUL. 5	15	MAR. 3	6608	116.06	4.65	JAN. 29-30	23.9	4.3	DEC. 29-30	81	77	70	79	9.2	SSE	40*	SE	NOV. 6		8.1	36	61	267	227	6	4	18	29	9	68	0
BARROW	18.7	6.6	12.7	64	AUG. 14+	-45	MAR. 26	19031	7.08	.54	JAN. 17-18	44.3	5.4	JAN. 17-18	80	78	77	78	12.7	ENE	49*	E	JAN. 12			V41	V47	V211	125	11	0	68	0	255	315	159
BARTER ISLAND	20.0	7.5	13.8	66	JUL. 19	-51	JAN. 27	18640	9.79	2.25	JAN. 18	68.8	14.8	JAN. 18	77	76	76	76	14.1	E	62*	W	FEB. 26			X57	X57	X196	91	16	0	73	0	244	309	157
BETHEL	35.5	21.8	28.7	83	JUN. 19	-30	JAN. 29	13205	12.53	1.01	AUG. 25-26	47.5	3.9	JAN. 21	84	82	73	77	13.2	NNE	52*	S	FEB. 19		7.4	65	61	239	133	16	1	95	21	142	240	75
COLD BAY	42.1	34.0	38.1	69	AUG. 26	- 5	JAN. 29	9736	26.39	1.40	MAY 16-17	27.5	3.3	DEC. 21-22	87	87	81	87	17.0	SSE	60*	SSE	JAN. 13		8.8	16	42	307	190	8	0	27	0	56	157	2
CORDOVA	46.3	30.8	38.6	68	JUL. 28+	- 7	DEC. 7	9542	77.47	2.54	SEP. 19-20	123.2	18.0	MAY 24-25	88	83	75	85	5.8	ESE	31*	ESE	OCT. 28+		8.0	45	58	262	199	22	3	11	0	41	183	13
FAIRBANKS	37.2	18.2	27.7	87	AUG. 1	-52	JAN. 27	13595	16.62	1.63	JUL. 21-22	70.3	8.2	FEB. 8-9	80	75	62	71	5.7	N	25*	SW	AUG. 30+		7.0	78	73	214	105	23	4	21	52	151	237	104
JUNEAU	47.1	33.8	40.5	78	JUL. 29+	- 2	JAN. 26	8832	61.83	2.38	DEC. 8-9	126.2	25.6	DEC. 8-9	86	81	71	81	7.6	ESE	40*	ESE	APR. 12	30	8.3	47	43	275	207	29	1	19	14	38	147	3
KING SALMON	41.6	25.3	33.5	82	JUL. 1+	-28	JAN. 3	11431	17.25	.67	FEB. 19-20	54.9	9.3	FEB. 19-20	85	81	68	78	10.6	N	48*	E	JAN. 4+		7.3	68	62	235	138	22	2	36	24	95	202	49
KOTZEBUE	28.8	16.3	22.6	75	AUG. 12	-40	JAN. 27	15406	9.31	.84	SEP. 1-2	65.5	4.4	MAR. 28-29	82	80	78	80	11.0	ESE	52*	WNW	SEP. 3		7.2	80	52	233	125	19	1	17	3	203	254	102
MC GRATH	35.6	16.7	26.2	88	JUL. 20	-52	JAN. 26	14136	8.67	.79	SEP. 1-2	82.2	8.9	DEC. 24-25	77	74	61	68	4.9	N	35*	S	FEB. 19		7.3	64	67	234	118	23	6	28	38	159	239	95
NOME	32.5	19.7	26.1	72	JUL. 18	-30	JAN. 27+	14108	7.42	.82	SEP. 1	45.1	7.9	DEC. 22-23	82	81	77	80	12.2	E	46*	NW	JAN. 22+	29	7.1	77	64	223	127	10	0	36	3	182	253	84
ST. PAUL ISLAND	38.7	29.6	34.2	61	JUL. 26+	- 5	JAN. 31+	11172	22.81	1.31	AUG. 24-25	56.1	7.3	DEC. 10-11	90	90	86	89	17.5	NW	56	SE	JAN. 10		8.6	29	39	297	193	16	0	95	0	67	227	6
SHEMYA	42.4	36.3	39.4	54	AUG. 20+	21	FEB. 15	9262	38.17	5.26	OCT. 11-12	59.1	3.6	NOV. 16-17	89	91	87	87	18.6	WSW	60*	WSW	27		8.9	10	53	302	221	24	0	103	0	15	121	0
YAKUTAT	46.1	32.8	39.5	69	AUG. 15+	- 3	MAR. 23-	9195	141.61	5.11	JAN. 8-9	163.7	16.8	DEC. 8-9	92	86	78	89	7.1	ENE	46*	ESE	OCT. 27+		8.2	40	55	270	223	37	3	36	0	42	159	3
ARIZONA																																				
FLAGSTAFF	61.3	29.7	45.5	89	AUG. 12	-16	FEB. 28	7079	18.11	1.54	JUL. 21-22	86.1	16.6	JAN. 20-21	72	38	37	63	7.1	S	37	NNE	JAN. 10		4.2	181	81	103	81	23	55	16	0	16	210	10
PHOENIX	85.7	55.4	70.6	113	AUG. 13+	22	JAN. 12	1365	3.90	.73	JAN. 21-22	T	T	JAN. 17+	50	31	22	40	5.2	E	49Y	SE	JUL. 20	90	3.0	228	78	59	35	0	16	2	162	0	7	0
PRESCOTT	71.2	40.8	56.0	101	AUG. 14	2	FEB. 28	4164	10.53	1.47	JUL. 21-22	14.1	3.4	FEB. 26-27	60	34	29	51	8.1	SSW	56	SW	JAN. 20	82	3.6	193	102	70	60	9	33	4	57	1	116	0
TUCSON	81.6	54.7	68.2	107	AUG. 11	21	JAN. 12+	1631	8.58	2.40	SEP. 26	T	T	FEB. 27	52	30	23	42	9.4	SSE	54	W	JUL. 29	87	3.6	203	83	79	52	0	41	0	137	0	16	0
WINSLOW	70.3	39.3	54.8	103	AUG. 15	- 4	JAN. 3	4810	6.55	1.37	OCT. 17-18	17.1	5.1	JAN. 24-25	64	40	33	53	9.1	SW	52*	SW	JUL. 17		4.2	183	89	93	52	6	32	18	83	25	121	1
YUMA	90.1	60.0	75.1	117	AUG. 11	28	JAN. 12	741	1.16	.47	JAN. 24	.0	.0		48	29	19	38	7.7	SSE	36	SE	AUG. 15	92	2.4	260	62	43	11	0	1	0	195	0	2	0
ARKANSAS																																				
FORT SMITH	72.8	50.1	61.5	106	AUG. 11+	- 3	JAN. 12+	3394	35.72	2.18	AUG. 31	3.9	3.5	JAN. 8-9	81	88	59	59	7.2	ENE	45	W	MAY 26	58	5.7	124	97	144	96	1	58	18	93	9	67	3
LITTLE ROCK	73.0	51.1	62.1	106	AUG. 7	- 4	JAN. 12	3206	46.88	3.62	JAN. 22	7.5	6.0	JAN. 8-9	80	84	58	62	7.6	SW	40	SW	MAR. 11	58	5.6	121	99	145	107	3	51	19	89	6	58	2
TEXARKANA	74.3	54.3	64.3	102	AUG. 12	0	JAN. 10	2580	44.38	2.82	JUN. 31-1	7.6	7.5	JAN. 9	84	91	65	65	8.2	SW									106	1	62	21	79	3	32	1
CALIFORNIA																																				
BAKERSFIELD	76.2	51.4	63.8	105	JUN. 19	21	DEC. 26	2355	5.66	1.19	FEB. 10-11	T	T	JAN. 22	69	53	38	57	6.8	NW	37*	NNW	APR. 19+		3.5	208	74	83	31	0	4	32	99	0	27	0
BISHOP	74.7	37.2	56.0	103	AUG. 13	3	DEC. 26	4060	7.74	2.09	FEB. 8-9	2.2	.7	JAN. 20		28	18								3.2	229	66	70	30	0	7	0	95	2	132	0
BLUE CANYON	59.2	43.6	51.4	86	AUG. 25+	7	FEB. 27+	5210	77.16	7.93	OCT. 11-12	192.3	24.1	JAN. 19		47			7.8		53	SSW	FEB. 9		4.3	188	56	121	79	35	7	71	0	25	78	0
BURBANK	74.2	51.5	62.9	97	AUG. 14+	32	DEC. 28	1667	17.54	5.62	FEB. 10-11	T	T	FEB. 19+	77	55	47	72	6.9	S	32*	NNW	APR. 20		4.0	191	95	79	29	0	3	39	36	0	1	0

See reference notes at end of table.

ANNUAL CLIMATOLOGICAL DATA
ENGLISH UNITS

State and Station	Temperature							Heating degree days	Precipitation						Relative humidity				Wind					Possible sunshine	Average sky cover sunrise to sunset	Number of days										
	Averages			Extremes								Snow, Sleet									Fastest mile					Sunrise to sunset							Max. temp		Min temp.	
	Daily maximum	Daily minimum	Annual	Highest	Date	Lowest	Date		Total	Greatest in 24 hours	Date (s)	Total	Greatest in 24 hours	Date (s)	100am EST	700am EST	100pm EST	700pm EST	Average speed	Prevailing direction	Speed	Direction	Date			Clear, 0-03	Partly cloudy, 04-0.7	Cloudy, 08-10	Precipitation .01 inch or more	Snow, Sleet 1.0 inch or more	Thunderstorms	Heavy fog	90 °F and above	32 °F and below	32 °F and below	0 °F and below
CALIFORNIA	°F	°F	°F	°F		°F		Base 65 °F	In.	In.		In	In.		%	%	%	%	M.p.h.		M.p.h.			%	Tenths											
EUREKA U	56.9	46.7	51.8	70	DEC. 14+	27	FEB. 27	4711	35.18	2.90	OCT. 9-10	.8	.8	JAN. 20					6.6		56	SW	OCT. 12	51	7.0	73	87	205	102	0	1	71	0	0	7	0
FRESNO	76.1	48.6	62.4	106	JUN. 19	23	DEC. 27+	2612	9.59	1.56	FEB. 10-11	2.2	1.5	JAN. 22	77	58	37	63	6.0	WNW	33	NW	APR. 19+	83	3.4	214	73	78	37	1	5	65	107	0	31	0
LONG BEACH	71.5	52.0	61.8	96	OCT. 30	32	DEC. 28	1633	11.96	2.50	FEB. 7-8	T	T	JAN. 22	85	67	60	82	6.5	WNW	32*	E	JAN. 10		4.8	147	129	89	27	0	4	65	9	0	1	0
LOS ANGELES	68.1	54.0	61.1	92	OCT. 30	36	DEC. 27	1681	15.02	4.16	FEB. 7-8	T	T	JAN. 22+	83	67	69	82	6.8	WSW	49Y	W	MAR. 9		4.9	135	137	93	26	0	2	51	1	0	0	0
LOS ANGELES U	72.1	54.3	63.2	94	SEP. 23+	39	FEB. 28+	1447	15.37	3.02	FEB. 10-11	T	T	JAN. 22+	79	52	55K	76	5.7	W#	35	SE	JAN. 22	74	3.9	196	91	78	25	0	5	42	12	0	0	0
MT SHASTA R	62.9	37.1	50.0	96	JUL. 27	- 2	JAN. 21	5612	41.15	3.59	OCT. 11-12	86.4	15.7	MAR. 4-5		59	48								4.0	199	74	92	80	21	10	4	24	6	122	2
OAKLAND	65.1	49.0	57.1	95	AUG. 27+	30	JAN. 23	2920	22.47	5.45	OCT. 12-13	T	T	JAN. 21	82	67	57	78	8.7	WNW	35*	NNE	OCT. 12		4.8	146	115	104	56	0	1	35	3	0	8	0
POINT ARGUELLO	61.6	46.5	54.1	92	AUG. 28	26	DEC. 27	3899	13.37	1.87	FEB. 10-11	T	T	JAN. 22+					7.8		41*	S	FEB. 9		6.2	105	86	174	75	0	1	162	1	0	13	0
RED BLUFF	75.4	50.4	62.9	109	JUL. 26	21	JAN. 21	2490	21.11	2.57	OCT. 11-12	1.5 AP	1.5 AP	FEB. 28	65 AP	50 AP	36 AP	57 AP	9.4 AP	SSE AP	68 AP	SE AP	OCT. 12	82 AP	4.0 AP	201 AP	62 AP	102 AP	55	1 AP	9 AP	26 AP	96	1	24	0
SACRAMENTO U	72.6	48.9	60.8	104	JUN. 20	25	JAN. 22	2549	19.88	5.07	OCT. 12-13	T	T	JAN. 21	86	68	49	77	6.6	SW	42	SW	OCT. 12	79	4.0	194	72	99	41	0	5	64	69	0	17	0
SANDBERG R	64.1	46.9	55.5	96	AUG. 14+	13	FEB. 27	4271	14.08	4.87	FEB. 10-11	37.0	17.7	JAN. 22		40			12.9	N	62*	N	APR. 25		2.7	246	57	62	30	5	0	60	14	9	62	0
SAN DIEGO	69.3	54.9	62.1	89	OCT. 30+	40	DEC. 31+	1419	7.39	1.47	JAN. 20-21	.0	.0		80	64	65	79	6.9	NW	31	S	JAN. 20		4.8	154	123	88	39	0	2	47	0	0	0	0
SAN FRANCISCO	63.9	47.7	55.8	92	AUG. 27+	30	JAN. 21	3299	24.25	3.74	OCT. 12-13	1.5	1.5	JAN. 21	87	73	64	83	10.5	WNW	50	S	OCT. 13+		4.5	156	114	95	51	1	1	30	2	0	8	0
SAN FRANCISCO U	61.7	50.4	56.1	88	JUN. 19	32	JAN. 21	3212	19.99	3.11	OCT. 12-13	T	T	JAN. 21		F81	K70		8.8	W#	38	SE	OCT. 12+	66					55	0	1		0	0	1	0
SANTA MARIA	66.6	45.2	55.9	103	AUG. 28	24	DEC. 26	3265	13.86	2.26	FEB. 9-10	T	T	FEB. 25+	90	65	64	87	6.6	WNW	40*	SE	MAR. 5		4.1	181	117	67	41	0	1	108	1	0	17	0
COLORADO																																				
ALAMOSA	60.8	24.2	42.5	88	AUG. 10+	-24	JAN. 11	8158	4.74	1.05	MAR. 29-30	30.9	14.0	MAR. 29-30	78	42	37								4.2	165	132	68	63	7	40	15	0	26	234	35
COLORADO SPRINGS	62.9	35.2	49.1	96	AUG. 14+	-20	JAN. 10	6130	10.12	1.24	JUN. 29-30	29.7	5.5	NOV. 16-17	66	37	40	61	9.0	NNE	35*	N	SEP. 8+		4.8	134	136	95	74	9	62	17	19	33	152	14
DENVER	64.6	34.7	49.7	100	AUG. 14+	-24	JAN. 10+	6152	8.45	1.02	JAN. 7-8	52.2	12.4	JAN. 7-8	64	37	37	57	9.0	SSW	48	W	NOV. 6+	73	5.1	128	128	109	80	16	33	9	44	28	159	19
GRAND JUNCTION	65.9	40.4	53.2	99	AUG. 15+	-12	DEC. 26	5331	6.02	.82	SEP. 20-21	23.6	4.2	DEC. 24	54	37	30	45	6.0	ESE	48	NW	JUL. 25	77	4.7	155	113	97	56	8	29	7	60	22	124	12
PUEBLO	68.7	36.5	52.6	103	AUG. 9	-25	JAN. 11+	5311	8.40	.72	JUL. 23	36.5	7.7	MAR. 29-30	70	40	35	58	9.1	ESE	68	N	AUG. 15	78	4.4	168	120	77	61	9	46	11	59	21	149	18
CONNECTICUT																																				
BRIDGEPORT	57.8	41.6	49.7	88	JUN. 18+	- 2	FEB. 11	5987	33.77	2.42	JAN. 6-7	27.2	10.0	FEB. 14-15	78	78	60	68	13.2	NNW	55	NW	APR. 23		6.1	101	103	155	109	8	17	21	0	33	112	3
HARTFORD	58.4	36.7	47.6	94	JUL. 8+	- 9	DEC. 30	6323	36.16	2.85	AUG. 17	43.5	8.8	FEB. 14-15	81	81	55	66	8.1	S	40	NW	APR. 9	58	6.5	86	98	181	113	15	23	37	7	44	145	8
NEW HAVEN	57.8	40.5	49.2	90	AUG. 8	- 2	DEC. 31+	6112	36.64	2.85	JAN. 6-7	35.0	8.5	FEB. 14-15		77	59		8.3		41	NW	DEC. 31	61	6.1	107	96	162	117	14	20	13	1	34	117	3
DELAWARE																																				
WILMINGTON	62.0	43.0	52.5	95	MAY 19	- 1	FEB. 11	5366	34.41	1.96	SEP. 27-28	23.3	4.3	MAR. 6	79	79	55	66	9.8	NW	44	WNW	DEC. 31		6.1	97	113	155	110	6	27	33	14	25	117	1
DIST OF COLUMBIA																																				
WASH NATL AP	64.2	47.4	55.8	99	AUG. 20	9	JAN. 11	4605	33.07	1.68	OCT. 4	28.7	5.4	DEC. 25	71	72	52	59	8.0	S	42	NW	JUN. 19	59	6.0	104	103	158	110	8	25	14	21	18	83	0
FLORIDA																																				
APALACHICOLA U	75.6	61.4	68.5	96	AUG. 6+	13	DEC. 13	1372	36.23	3.21	SEP. 8-9	T	T	JAN. 11					6.5		38	NW	AUG. 7		5.0	137	120	109	94	0	60	43	37	0	8	0
DAYTONA BEACH	79.4	60.0	69.7	97	MAY 22	21	DEC. 13	1034	46.59	3.39	JUL. 7-8	T	T	DEC. 12	84	85	60	74	8.6	NW	36	W	JAN. 6		6.1	83	135	147	106	0	99	49	45	0	12	0
FORT MYERS	84.3	64.2	74.3	98	MAY 26	26	DEC. 13	364	58.15	9.34	SEP. 20-21	.0	.0		86	86	55	72	9.1		38	NE	OCT. 3		5.3	117	153	95	105	0	98	33	136	0	3	0
JACKSONVILLE	79.7	58.9	69.3	99	JUL. 12+	12	DEC. 13	1394	43.90	4.19	JUN. 14-15	T	T	DEC. 12	84	87	52	69	7.9	NW	54	E	JUN. 14	59	5.6	98	143	124	126	0	68	44	103	0	11	0
KEY WEST	82.4	72.3	77.4	93	OCT. 5+	46	DEC. 13	89	30.45	2.52	DEC. 1	.0	.0		77	79	64	72	10.8	ESE	36	NW	MAR. 6	72	5.6	94	166	105	109	0	68	1	74	0	0	0
LAKELAND U	81.5	62.5	72.0	97	MAY 27	20	DEC. 13	674	38.06	2.86	JUN. 1	.0	.0						6.9					64	5.6	96	148	121	111	0	118	28	107	0	4	0
MIAMI BEACH	81.9	70.9	76.4	95	JUL. 16	36	DEC. 13	133	36.32	3.02	SEP. 23-24	.0	.0						9.0		38	W	SEP. 20	59	5.4	102	163	100	116	0			40	0	0	0

See reference notes at end of table

ANNUAL CLIMATOLOGICAL DATA
ENGLISH UNITS

State and Station	Temperature							Heating degree days	Precipitation						Relative humidity				Wind					Possible sunshine	Average sky cover sunrise to sunset	Number of days										
	Averages			Extremes								Snow, Sleet									Fastest mile					Sunrise to sunset							Max temp		Min temp	
	Daily maximum	Daily minimum	Annual	Highest	Date	Lowest	Date		Total	Greatest in 24 hours	Date (s)	Total	Greatest in 24 hours	Date (s)	100am E S T	700a m. E S T	100p.m. E S T	700p.m. E S T	Average speed	Prevailing direction	Speed	Direction	Date			Clear, 0-.3	Partly cloudy, .4-.7	Cloudy, .8-1.0	Precipitation .01 inch or more	Snow, Sleet 1.0 inch or more	Thunderstorms	Heavy fog	90 °F and above	32 °F and below	32 °F and below	0 °F and below
FLORIDA	°F	°F	°F	°F		°F		Base 65 °F	In	In.		In	In		%	%	%	%	M.p.h		M.p.h.			%	Tenths											
MIAMI	82.5	66.9	74.7	93	AUG. 7+	35	DEC. 14+	243	42.27	3.57	NOV. 9	.0	.0		82	85	59	71	8.6	ESE	40	SSE	SEP. 21+		6.0	70	168	127	110	0	94	10	47	0	0	0
ORLANDO	83.0	61.6	72.3	100	MAY 27	20	DEC. 13	711	50.35	4.06	SEP. 18-19	.0	.0		86	88	53	69	8.6	S	35	NNE	MAY 11		5.7	91	158	116	107	0	79	37	127	0	5	0
PENSACOLA U	75.7	60.3	68.0	97	AUG. 10+	10	DEC. 13	1580	42.72	3.03	NOV. 8	T	T	JAN. 10					8.9		33	W	MAR. 5	68					118	0	53	0	41	3	11	0
TALLAHASSEE	79.2	55.9	67.6	99	SEP. 4	10	DEC. 13	1676	52.99	7.16	MAR. 31-1	T	T	DEC. 12	89	91	56	70	8.9	N	58	NNE	AUG. 8		5.6	101	139	122	119	0	90	58	110	0	26	0
TAMPA	80.8	62.2	71.5	95	AUG. 30+	18	DEC. 13	695	41.62	4.34	SEP. 19-20	.0	.0		85	87	58	71	10.5	N	48	NE	JUN. 28	65	5.7	98	137	130	97	0	98	29	78	0	4	0
WEST PALM BEACH	83.4	65.5	74.5	96	AUG. 4+	30	DEC. 13	296	48.56	3.57	MAR. 25-26	.0	.0		83	86	58	72	9.3	SE	42	NNW	MAR. 25		6.1	76	149	140	119	0	92	11	93	0	1	0
GEORGIA																																				
ATHENS	72.3	50.2	61.3	99	JUL. 23	2	DEC. 13	3160	50.64	2.70	FEB. 21-22	2.0	1.0	JAN. 9	81	87	56	65	7.9	WNW	37	NNW	AUG. 13		5.7	112	113	140	117	1	55	38	69	3	56	[illegible]
ATLANTA	70.5	50.0	60.3	94	JUL. 23	1	DEC. 13	3312	47.81	3.49	APR. 11-12	3.5	3.5	JAN. 9	79	84	56	62	7.9	WNW	29	W	MAY 9+		5.3	132	99	134	116	1	56	32	36	5	53	0
AUGUSTA	75.5	51.7	63.6	102	JUL. 24	6	DEC. 13	2649	45.28	3.59	FEB. 21-22	T	T	DEC. 6+	84	88	55	67	6.3	SE	39	NW	APR. 11		6.0	102	109	154	111	0	69	37	86	2	47	0
COLUMBUS	76.0	52.7	64.4	98	JUL. 24+	4	DEC. 13	2511	49.40	3.00	APR. 11-12	T	T	MAR. 6+		86	51	62	8.1		52	N	JUL. 18		5.4	130	104	131	114	0	64	21	100	2	45	0
MACON	76.7	53.5	65.1	101	JUL. 23	5	DEC. 13	2372	48.27	4.44	JAN. 5-6	T	T	DEC. 6+	79	86	49	58	7.9	NW	38	E	FEB. 19+	64	5.5	125	92	148	112	0	75	26	112	1	32	0
ROME	72.2	47.1	59.7	97	SEP. 4+	0	DEC. 13	3598	51.44	3.33	APR. 11-12	3.3	2.4	JAN. 9-10		84	50								5.5	123	112	130	121	1	65	24	81	4	84	1
SAVANNAH	76.3	54.8	65.6	98	MAY 27+	9	DEC. 13	2107	54.08	2.71	MAR. 2-3	T	T	DEC. 12+	86	89	57	72	8.6	NNE	45	W	SEP. 6	67	5.9	100	110	155	121	0	76	37	72	0	29	0
THOMASVILLE U	78.9	57.2	68.1	98	JUL. 24+	8	DEC. 13	1655	50.18	5.74	APR. 1	T	T	JAN. 12+												125	94	115	110	0	82	18	116	1	15	0
HAWAII																																				
HILO	81.0	65.0	73.0	90	OCT. 18	53	FEB. 21	0	71.45	3.53	SEP. 16-17	.0	.0		86	79	63	82	7.6	WSW	35*	S	JAN. 6	46	7.0	41	135	189	250	0	4	0	1	0	0	0
HONOLULU U	79.9	71.2	75.6	85	OCT. 15+	58	FEB. 21	0	15.47	1.97	FEB. 16-17	.0	.0		AP 75	AP 72	AP 58	AP 70	AP 12.5	AP ENE	AP 43	AP S	JAN. 6	AP 71	AP 5.9	AP 78	AP 175	AP 112	105	0	AP 5	AP 0	0	0	0	0
KAHULUI	83.6	66.4	75.0	91	SEP. 10	53	FEB. 22	0	12.63	2.14	JAN. 28-29	.0	.0		79	74	58	73	19.2	NE	54*	SSW	JAN. 6		4.7	149	133	83	76	0	5	0	1	0	0	0
LIHUE	82.0	68.6	75.3	87	OCT. 30+	52	FEB. 22	0	56.76	6.87	JAN. 6	.0	.0		79	76	64	75	12.1	NE	42	S	APR. 25+	63	6.3	59	175	131	192	0	12	0	0	0	0	0
IDAHO																																				
BOISE	61.9	38.7	50.3	102	JUN. 25	-12	JAN. 23+	5891	10.68	1.25	MAY 23-24	14.8	5.5	JAN. 19-20	70	55	44	62	8.0	SE	38	SW	JUN. 18	73	5.8	119	92	154	88	6	13	38	31	37	121	5
IDAHO FALLS 42NW R	56.7	25.9	41.3	96	AUG. 15	-42	JAN. 23	8675	10.11	1.24	MAY 14-15																		65				14	63	210	48
IDAHO FALLS 46W R	57.1	27.7	42.4	96	AUG. 15	-40	JAN. 21	8315	10.20	1.19	SEP. 20-21	21.4	6.0	JAN. 19-20					7.0		40A	WSW	AUG. 21						66	9	11	15	14	59	200	39
LEWISTON	62.5	41.1	51.8	101	AUG. 15+	- 3	JAN. 21	5295	13.16	.84	MAY 23-24+	6.6	2.0	JAN. 12-13	75	60	49								6.8	87	77	201	95	2	11	32	31	16	77	2
POCATELLO	59.5	33.7	46.6	97	AUG. 15	-30	JAN. 22	6968	10.02	.90	AUG. 5	48.3	9.0	JAN. 19-20	72	52	43	61	9.8	SSW	47	S	JAN. 20	62	6.0	105	96	164	80	17	26	26	24	44	158	9
ILLINOIS																																				
CAIRO U	67.4	50.4	58.9	98	AUG. 20+	- 2	JAN. 10	4093	52.93	3.24	MAY 27	5.8	2.0	DEC. 10-11		82	59		8.1	S#	42	SW	MAY 29+	62	6.0	97	115	153	125	2	67	6	57	15	64	2
CHICAGO O HARE	57.8	38.4	48.1	94	AUG. 24+	-15	JAN. 10	6815	21.77	2.89	JUL. 1-2	37.6	9.0	JAN. 6-7	78	81	60	65	10.8	SSW	52*	NNW	MAY 12		6.5	82	100	183	111	12	27	20	18	61	141	22
CHICAGO MIDWAY	58.5	41.8	50.2	96	AUG. 20	-12	JAN. 10	6399	22.22	1.82	JUL. 22	45.7	7.0	JAN. 6-7	73	76	56	61	10.7	SW	45	N	APR. 9	58	6.5	78	106	181	126	12	28	14	26	56	119	15
MOLINE	58.8	38.5	48.7	96	AUG. 23	-19	DEC. 26	6806	33.85	3.51	JUL. 13-14	37.6	6.8	FEB. 17-18	78	82	60	63	9.4	WNW	45	NW	NOV. 23	58	6.2	95	105	165	108	14	46	26	22	56	144	21
PEORIA	59.4	39.4	49.4	96	AUG. 23	-14	JAN. 11+	6559	24.82	1.64	OCT. 19-20	23.2	5.1	JAN. 6	78	82	61	63	10.6	S	40	W	APR. 30	60	6.0	105	97	163	96	6	42	20	16	57	139	17
ROCKFORD	56.6	37.6	47.1	93	AUG. 23	-16	JAN. 11	7141	27.70	2.33	JUL. 2	43.9	7.7	JAN. 6-7	81	85	60	65	10.7	WNW	38*	WSW	APR. 24		6.2	95	104	166	115	14	40	23	8	63	154	24
SPRINGFIELD	62.4	42.0	52.2	98	AUG. 20	-11	JAN. 10	5831	30.62	3.09	OCT. 1-2	29.9	6.2	JAN. 6	76	81	59	62	10.7	SSW	73	SW	JUL. 13	62	5.9	115	98	152	116	10	45	24	32	42	128	11
INDIANA																																				
EVANSVILLE	66.2	45.2	55.7	100	AUG. 20	-11	JAN. 10	4837	40.91	2.52	SEP. 3	6.4	1.8	FEB. 8	79	82	61	65	6.9	NW	43	SW	APR. 30	65	6.2	96	103	166	123	3	48	10	47	24	101	6

See reference notes at end of table.

ANNUAL CLIMATOLOGICAL DATA
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State and Station	Temperature							Heating degree days	Precipitation						Relative humidity				Wind					Possible sunshine	Average sky cover sunrise to sunset	Number of days										
	Averages			Extremes								Snow, Sleet									Fastest mile					Sunrise to sunset							Max. temp		Min temp.	
	Daily maximum	Daily minimum	Annual	Highest	Date	Lowest	Date		Total	Greatest in 24 hours	Date (s)	Total	Greatest in 24 hours	Date (s)	1 00am E.S.T.	7 00a m E S T	1 00p.m. E S T	7 00 p.m. E.S.T	Average speed	Prevailing direction	Speed	Direction	Date			Clear, 0–0.3	Partly cloudy, 0.4–0.7	Cloudy, 0.8–1.0	Precipitation .01 inch or more	Snow, Sleet 1.0 inch or more	Thunderstorms	Heavy fog	90 °F and above	32 °F and below	32 °F and below	0 °F and below
INDIANA	°F	°F	°F	°F		°F		Base 65 °F	In.	In.		In	In.		%	%	%	%	M.p.h.		M.p.h.			%	Tenths											
FORT WAYNE	59.4	40.1	49.8	101	AUG. 20	- 9	JAN. 10	6373	24.40	1.42	MAY 26	28.3	5.8	FEB. 23-24	78	82	64	61	10.6	W	63	W	APR. 30	59	6.5	74	117	174	116	10	32	17	18	51	135	9
INDIANAPOLIS	60.9	42.1	51.5	97	AUG. 20	-12	JAN. 10	5879	41.26	3.37	JUL. 13-14	28.3	5.8	FEB. 23	79	85	66	63	8.1	SSW	75	SW	OCT. 7	61	6.5	87	105	173	110	11	36	17	13	39	125	8
SOUTH BEND	57.4	39.0	48.2	95	AUG. 24	-12	JAN. 10	6753	34.51	3.31	JUL. 2-3	100.6	10.5	DEC. 9	81	85	62	67	10.7	SSW	55*	W	APR. 30		6.7	76	95	194	133	34	31	32	12	58	146	13
IOWA																																				
BURLINGTON	60.3	40.1	50.2	96	AUG. 23	-15	DEC. 26	6426	29.83	2.56	OCT. 19-20	37.5	7.5	FEB. 20-21	79	83	59	63	10.6	WNW	56	W	SEP. 13	66	6.0	109	98	158	115	10	48	23	28	52	144	18
DES MOINES	58.1	39.6	48.9	96	AUG. 23+	-22	MAR. 1	6850	27.04	2.60	JUN. 10	43.5	8.0	MAR. 8	78	83	66	65	8.1	NW	56	SW	JUN. 18	57	6.3	90	101	174	105	12	48	25	13	70	145	24
DUBUQUE	54.4	36.4	45.4	91	AUG. 23	-23	DEC. 26	7599	42.77	4.60	MAY 28-29	60.2	11.9	FEB. 17-18		81	62	66							6.5	91	89	185	111	19	41	28	1	74	160	29
SIOUX CITY	58.1	37.7	47.9	94	AUG. 27	-26	FEB. 28	7036	32.86	2.60	JUL. 13-14	58.5	8.9	MAR. 11	82	87	68	65	9.1	NNW	70	SW	JUN. 13	59	6.0	105	99	161	118	16	62	19	16	66	148	31
WATERLOO	55.4	35.8	45.6	91	AUG. 23+	-34	MAR. 1	7660	31.89	2.30	JUL. 1-2	41.7	8.0	FEB. 25-26	85	87	66	72	10.1	NW	52*	S	JUN. 22		6.4	91	106	168	104	15	42	20	10	71	161	34
KANSAS																																				
CONCORDIA	64.2	42.8	53.5	104	AUG. 18	- 7	JAN. 20	5481	27.32	3.96	MAY 27-28	17.9	3.6	DEC. 24-25										67	5.2	133	114	118	97	6	73	16	10	66	121	9
DODGE CITY	67.3	43.1	55.2	106	AUG. 10	- 8	JAN. 11	4875	27.97	4.01	JUL. 23-24	8.8	3.0	JAN. 8	74	82	53	51	11.4	SSE	73	NE	SEP. 16	71	5.0	140	112	113	88	3	64	26	54	25	110	10
GOODLAND	66.2	36.3	51.3	102	AUG. 10	-17	JAN. 19	5776	19.53	2.56	MAY 17-18	22.8	4.0	NOV. 15-16	81	47	45	73	12.6	SSE	58*	NW	JUN. 23		4.6	155	112	98	71	10	56	30	43	25	163	15
TOPEKA	64.6	42.8	53.7	102	AUG. 19	-10	DEC. 26+	5413	32.26	4.48	AUG. 23-24	22.8	7.0	FEB. 5	80	85	62	62	11.9	S	59	SW	MAY 28	62	5.9	109	110	146	92	6	60	16	31	31	121	13
WICHITA	67.6	46.2	56.9	107	AUG. 10	-12	JAN. 20	4701	32.55	2.43	JUL. 22-23	22.7	13.0	JAN. 17-18	76	82	59	57	12.0	S	59	SE	JUL. 4	61	5.6	117	108	140	88	6	59	21	61	24	107	3
KENTUCKY																																				
LEXINGTON	64.3	45.1	54.7	98	AUG. 20	- 9	JAN. 11	4972	50.01	3.21	OCT. 2-3	12.5	3.8	JAN. 19	82	85	61	68	8.4	SW	46	NW	FEB. 23		6.1	104	106	155	137	3	52	21	19	23	103	5
LOUISVILLE	65.4	44.7	55.1	101	AUG. 20	- 6	JAN. 10	4887	39.91	2.78	OCT. 1-2	11.7	1.7	JAN. 19+	81	86	62	63	7.7	SSE	42	N	APR. 30	49	6.2	97	103	165	127	5	48	3	27	22	104	5
LOUISIANA																																				
ALEXANDRIA	77.3	53.2	65.3	104	AUG. 8	5	JAN. 12	2269	45.22	2.18	NOV. 19-20	1.4	1.4	JAN. 9	89	92	59	66	5.6	SSW					5.5	115	116	134	100	1	70	41	92	3	38	0
BATON ROUGE	79.0	57.4	68.2	102	AUG. 10+	10	JAN. 11	1677	53.00	6.97	APR. 27-28	.3	.3	JAN. 9	85	90	58	65	7.4	N					5.4	111	139	115	94	0	82	38	107	2	20	0
LAKE CHARLES	77.6	58.4	68.0	103	AUG. 8	15	JAN. 11+	1625	46.33	14.10	AUG. 28-29	T	T	JAN. 10+	90	93	62	71	10.4	S	58*	NW	JAN. 14		5.8	104	130	131	82	0	66	50	85	2	11	0
NEW ORLEANS	78.2	58.1	68.2	97	AUG. 8	14	JAN. 11	1564	39.00	3.42	JUN. 19-20	T	T	JAN. 9	89	91	64	72	7.4	NE*	38*	W	JUN. 19		5.3	112	134	119	103	0	72	26	88	3	17	0
SHREVEPORT	76.4	55.5	66.0	107	AUG. 12	3	JAN. 12	2221	35.62	2.29	JUN. 25	3.5	3.5	JAN. 9	80	89	59	60	9.3	S				66	5.2	135	106	124	96	1	52	27	93	3	30	0
MAINE																																				
CARIBOU	47.5	28.4	38.0	88	JUN. 29+	-32	FEB. 2	9811	36.38	2.18	JUL. 9-10	100.7	7.1	OCT. 6-27+	82	82	62	73	11.0	NW	52	NNW	DEC. 30+		7.2	54	97	214	153	29	19	27	0	88	191	56
PORTLAND	54.0	32.6	43.3	88	JUN. 17+	-12	FEB. 2	7929	46.36	7.71	OCT. 6-7	81.2	10.0	MAR. 12-13	84	8[illegible]	58	73	9.4	N	45	E	DEC. 6	57	6.3	98	97	70	132	19	15	52	0	58	173	19
MARYLAND																																				
BALTIMORE	64.1	42.9	53.5	100	AUG. 20	3	JAN. 11	5136	40.24	2.74	OCT. 4	36.8	13.0	MAR. 5-6					9.3	W	57	NW	JUL. 21	55	5.8	106	112	147	107	10	20	27	29	23	119	0
BALTIMORE U	64.3	48.4	56.4	100	AUG. 20	9	DEC. 31+	4564	38.06	2.43	NOV. 9-10																		109				29	24	76	0
FREDERICK	62.6	40.7	51.7	100	AUG. 20	- 5	FEB. 10	5610	29.92	1.32	JAN. 6-7	37.9	8.0	MAR. 6															100	9		11	17	32	136	1
MASSACHUSETTS																																				
BLUE HILL OBS R	55.9	38.4	47.2	91	MAY 19	- 9	DEC. 30	6730	51.58	6.01	OCT. 5-6	51.8	13.4	FEB. 14-15	80	79	55	70	14.7		66	WNW	DEC. 30	57					125	13			2	45	137	5
BOSTON	57.7	41.9	49.8	92	JUN. 17	- 4	DEC. 31	59[illegible]4	43.23	4.26	OCT. 5-6	38.6	8.2	FEB. 19	72	72	55	64	14.3	WNW	49	NW	DEC. 30	62	6.1	103	96	166	124	11	19	23	5	33	101	3
NANTUCKET	55.0	42.2	48.6	82	AUG. 27	- 3	DEC. 31	6[illegible]38	50.73	3.11	NOV. 21-22	42.3	7.3	JAN. 1-2	84	80	69	80	13.8	WSW	50	NW	NOV. 15+	56	6.6	83	97	185	136	16	17	82	0	22	92	2
PITTSFIELD	54.6	32.5	43.6	92	JUL. 8	-18	FEB. 11	7918	29.53	1.69	AUG. 7	64.5	10.8	FEB. 14-15															133	20			2	64	178	22
WORCESTER	54.2	36.8	45.5	92	MAY 19	-13	DEC. 30	7279	49.48	3.52	OCT. 5-6	79.9	24.0	FEB. 14-15	76	74	57	67	9.2	W	43	ENE	MAR. 6		6.2	90	110	165	129	17	21	78	1	60	147	10

See reference notes at end of table

ANNUAL CLIMATOLOGICAL DATA
ENGLISH UNITS

State and Station	Temperature							Heating degree days	Precipitation						Relative humidity				Wind					Possible sunshine	Average sky cover sunrise to sunset	Number of days										
	Averages			Extremes								Snow, Sleet									Fastest mile					Sunrise to sunset							Max temp		Min temp.	
	Daily maximum	Daily minimum	Annual	Highest	Date	Lowest	Date		Total	Greatest in 24 hours	Date (s)	Total	Greatest in 24 hours	Date (s)	1:00am E.S.T.	7:00am E.S.T.	1:00p.m. E.S.T.	7:00p.m. E.S.T.	Average speed	Prevailing direction	Speed	Direction	Date			Clear, 0-0.3	Partly cloudy, 0.4-0.7	Cloudy, 0.8-1.0	Precipitation .01 inch or more	Snow, Sleet 1.0 inch or more	Thunderstorms	Heavy fog	90 °F and above	32 °F and below	32 °F and below	0 °F and below
MICHIGAN	°F	°F	°F	°F		°F		Base 65 °F	In.	In.		In.	In.		%	%	%	%	M.p.h.		M.p.h.			%	Tenths											
ALPENA	52.6	29.9	41.3	94	MAY 16	-27	MAR. 4+	8718	23.98	1.28	MAY 2-3	99.0	11.5	FEB. 13-14		82	59	68	7.2	W#	30	NW	DEC. 29+	60	6.6	75	113	177	139	26	31	22	8	75	183	32
DETROIT	57.2	40.7	49.0	93	MAY 18+	- 4	JAN. 10	6490	27.76	1.68	JUN. 11-12	34.5	4.8	FEB. 21	76	80	59	64	10.0	NW	57	NW	SEP. 13	53	6.5	81	109	175	135	13	37	12	9	54	132	3
DETROIT M WAYNE CO	57.6	37.4	47.5	92	MAY 18+	- 6	JAN. 10	6852	28.99	2.15	JUL. 11-12	42.9	6.6	DEC. 6	80	83	61	68	8.7	SW					6.6	71	123	171	141	15	39	24	12	56	155	7
DETROIT WILLOW RUN	58.5	38.4	48.5	96	MAY 18+	- 5	JAN. 10	6663	26.51	1.30	SEP. 13	42.1	7.2	DEC. 6-7	81	84	60	67	10.1	SW	46*	WNW	SEP. 13		6.6	72	120	173	122	14	34	27	16	54	142	8
ESCANABA U	48.9	33.7	41.3	85	JUN. 29	-19	MAR. 2+	8607	24.57	1.38	JUN. 17-18	75.5	11.3	FEB. 13-14	80	83	68	73	9.8		46	N	JAN. 3	45	6.6	78	109	178	130	21	30	20	0	84	159	27
FLINT	55.7	35.4	45.6	92	JUL. 7	-12	JAN. 19	7424	23.29	1.84	JUN. 10-11	50.1	6.9	DEC. 6	84	86	61	69	9.0	SW	32*	WSW	DEC. 23		6.7	73	109	183	118	18	33	23	4	66	162	20
GRAND RAPIDS	57.0	37.6	47.3	94	AUG. 24	- 7	JAN. 19	6987	22.77	2.46	SEP. 13	98.2	9.3	JAN. 14-15	77	81	58	61	10.1	E	42	W	SEP. 10	49	6.9	70	100	195	128	31	24	14	13	64	155	14
LANSING	56.2	36.0	46.1	94	AUG. 24	-13	JAN. 19	7308	21.23	1.22	MAY 2	60.2	7.4	DEC. 6-7	79	82	59	64	12.6	SSF	60	W	APR. 30	64	6.6	75	113	177	132	18	29	21	3	67	163	21
MARQUETTE U	48.7	33.8	41.3	94	MAY 16	-13	MAR. 1+	8738	25.99	1.34	SEP. 13	107.3	8.2	MAR. 12		78	67	70	7.8	W#	42	SW	APR. 21	52	7.4	43	104	218	153	34	27	37	5	84	161	17
MUSKEGON	55.8	38.2	47.0	93	AUG. 24+	- 6	FEB. 2+	6964	25.50	2.24	SEP. 13	182.2	12.6	DEC. 9-10	81	84	65	69	10.0	WNW	33*	NW	DEC. 29		7.0	70	87	208	135	48	30	20	4	66	153	8
SAULT STE MARIE	48.5	30.8	39.7	89	JUL. 7	-23	FEB. 1	9205	25.93	2.35	MAY 13-14	110.0	7.4	FEB. 13-14	84	85	65	71	8.9	E	40*	WNW	DEC. 29	50	7.1	62	91	212	165	41	26	41	0	85	170	39
MINNESOTA																																				
DULUTH	46.4	27.6	37.0	87	JUN. 28	-33	JAN. 17	10166	29.57	2.28	MAY 22-23	57.0	6.2	MAR. 11-12+	77	81	63	64	11.0	ESE	48	NE	APR. 27	47	7.3	59	95	211	140	21	38	58	0	104	192	47
INTERNATIONAL FALLS	47.4	25.7	36.6	86	AUG. 27+	-40	JAN. 17	10332	28.64	2.60	JUL. 7	52.1	11.5	APR. 8	79	82	63	65	7.6	NW	46*	S	JUN. 28		6.8	74	92	199	133	13	31	23	0	100	190	66
MINNEAPOLIS	52.0	32.7	42.4	95	JUN. 28	-32	MAR. 1	8565	28.83	2.39	MAY 11-12	69.4	9.3	MAR. 11-12	78	82	65	65	10.8	NW	50	NNE	JUL. 21	49	6.7	72	113	180	120	15	40	11	6	81	167	43
ROCHESTER	51.9	33.6	42.8	92	JUN. 28	-31	MAR. 1	8420	26.73	3.28	AUG. 30-31	55.6	7.2	APR. 12	83	85	69	72	11.9	S					6.7	77	102	186	106	17	44	37	1	80	168	38
ST CLOUD	51.8	31.5	41.7	92	JUN. 28	-32	MAR. 1	8746	29.14	3.19	MAY 22-23	53.0	5.9	FEB. 15	80	84	62	63							6.5	99	80	186	108	18	31	21	1	79	174	51
MISSISSIPPI																																				
JACKSON	76.3	53.9	65.1	99	AUG. 18+	- 1	JAN. 12	2446	40.49	4.20	APR. 11-12	4.0	4.0	JAN. 9-10	81	86	55	60	6.9	S	57	NW	APR. 30	67	5.3	126	118	121	99	1	72	20	104	4	34	1
MERIDIAN	77.3	51.5	64.4	101	JUL. 23+	0	JAN. 12	2596	38.65	3.53	MAR. 30-31	4.0	4.0	JAN. 9-10	89	92	54	64	6.4	S	32	WSW	JUN. 25		5.3	123	121	121	91	0	57	26	112	4	51	1
VICKSBURG U	74.3	56.1	65.2	96	JUL. 31+	2	JAN. 11	2339	42.53	5.64	APR. 11-12	3.0	3.0	JAN. 9					7.9		41	NW	APR. 30	69	5.3	138	104	123	97	1	61	23	71	4	22	0
MISSOURI																																				
COLUMBIA	64.7	44.1	54.4	103	AUG. 19	- 8	JAN. 10	5270	27.65	2.50	SEP. 3	22.9	6.4	JAN. 18-19	78	84	59	60	10.1	SSE	40	NW	APR. 12	61	5.8	115	101	149	101	7	58	13	43	32	103	10
KANSAS CITY	65.2	46.1	55.7	103	AUG. 19	- 5	JAN. 20+	5019	36.99	2.83	MAY 19-20	43.3	12.3	JAN. 18-19	72	79	59	58	7.9	SSW	50	W	JUL. 11	63	6.0	108	105	152	97	9	52	9	43	27	91	8
ST JOSEPH	62.8	42.3	52.6	102	AUG. 19	-11	JAN. 20	5826	38.48	7.12	MAY 18-19	31.7	7.0	FEB. 23					10.5	S	58*	W	JUN. 22		5.4	123	117	125	101	9	62	22	36	39	128	16
ST LOUIS	64.4	44.7	54.6	105	AUG. 19	- 8	JAN. 10	5105	34.61	2.00	JUL. 3-4	18.2	5.1	JAN. 6	74	80	58	59	8.8	S	38	SE	AUG. 31+	48	6.1	97	108	160	112	7	45	7	26	30	104	4
ST LOUIS RFC	65.1	48.0	56.6	105	AUG. 19	- 7	JAN. 10			3.81	JUN. 11		5.2	JAN. 5-6															104	5			35	26	81	4
SPRINGFIELD	66.6	44.3	55.5	101	AUG. 20+	- 8	JAN. 20+	4824	31.30	4.74	SEP. 14-15	10.9	4.9	JAN. 18-19	82	86	60	64	10.1	SSE	47	NW	JUN. 18	63	5.9	113	95	157	112	4	65	23	39	22	105	7
MONTANA																																				
BILLINGS	58.7	36.2	47.5	99	JUN. 26	-25	JAN. 21	6735	14.22	1.30	MAY 12-13	62.2	9.7	JAN. 7-8	67	52	45	60	11.1	WSW	47	W	JUN. 3	68	6.1	90	122	153	108	18	36	22	17	47	122	27
GLASGOW	53.7	31.9	42.8	94	AUG. 8	-37	FEB. 28	8278	17.77	3.98	JUL. 13-14	16.7	2.2	MAR. 10-11	79	59	54	71							6.6	76	102	187	100	4	30	14	7	67	161	44
GREAT FALLS	56.3	33.3	44.8	94	AUG. 12+	-25	JAN. 21+	7481	15.95	1.81	MAY 20-21	39.5	6.9	JAN. 7-8	74	52			8.7		70	SW	NOV. 20		6.5	74	124	167	90	3	28	9	12	61	164	39
HAVRE	56.5	30.2	43.4	96	AUG. 17+	-32	FEB. 28+	8051	11.59	1.66	JUN. 12	11.5	2.9	FEB. 17-18	68	50	45	61	11.4	SW	61	SW	NOV. 20	59	6.8	64	106	195	101	16	29	16	7	47	128	32
HELENA	56.1	31.9	44.0	96	AUG. 12	-32	JAN. 21	7731	14.08	1.36	MAY 12-13	36.5	8.7	APR. 7	71	54	45	62	7.9	WNW	56	SW	NOV. 19	64	6.6	70	114	181	99	9	37	12	3	42	155	33
KALISPELL	55.0	30.8	42.9	98	AUG. 16	-26	JAN. 21	8041	11.48	.54	OCT. 11-12	36.6	5.6	JAN. 7		61			6.1						7.2	64	83	218	123	12	16	32	11	42	178	14
MILES CITY	58.0	34.5	46.3	101	JUN. 26	-27	FEB. 28	7324	19.00	2.23	JUN. 10	17.4	3.0	DEC. 26	78	57	51	70	9.5	NW	58*	W	JUN. 4		5.9	107	117	141	89	10	38	10	24	53	152	34
MISSOULA	54.7	30.7	42.7	96	AUG. 15	-23	JAN. 22	8124	11.99	.85	JAN. 6-7	28.2	4.6	FEB. 18	83	65	54	73	6.2	NW	49	SW	AUG. 16	60	7.1	63	91	210	110	7	28	41	10	49	193	16

See reference notes at end of table.

ANNUAL CLIMATOLOGICAL DATA
ENGLISH UNITS

State and Station	Temperature							Heating degree days	Precipitation						Relative humidity				Wind					Possible sunshine	Average sky cover sunrise to sunset	Number of days										
	Averages			Extremes								Snow, Sleet									Fastest mile					Sunrise to sunset							Max. temp		Min temp.	
	Daily maximum	Daily minimum	Annual	Highest	Date	Lowest	Date		Total	Greatest in 24 hours	Date (s)	Total	Greatest in 24 hours	Date (s)	1:00a.m. E.S.T.	7:00a.m. E.S.T.	1:00p.m. E.S.T.	7:00p.m. E.S.T.	Average speed	Prevailing direction	Speed	Direction	Date			Clear, 0–0.3	Partly cloudy, 0.4–0.7	Cloudy, 0.8–1.0	Precipitation .01 inch or more	Snow, Sleet 1.0 inch or more	Thunderstorms	Heavy fog	90 °F and above	32 °F and below	32 °F and below	0 °F and below
NEBRASKA	°F	°F	°F	°F		°F		Base 65 °F	In	In.		In	In.		%	%	%	%	M.p.h.		M.p.h.			%	Tenths											
GRAND ISLAND	60.3	37.0	48.7	97	AUG. 19	-17	FEB. 28	6693	24.21	1.61	JUL. 13-14	27.1	5.3	FEB. 20-21	79	84	59	60	11.0	S					5.6	128	90	147	102	6	55	23	24	53	153	23
LINCOLN U	61.4	41.5	51.5	100	AUG. 19	-12	FEB. 28+	6051	28.03	2.29	AUG. 30-31	15.1	2.9	FEB. 20-21					10.2	S#	49	SW	AUG. 2+	64	5.9	107	104	154	114	3	57	8	28	49	128	17
NORFOLK	58.7	36.6	47.7	98	AUG. 27+	-26	FEB. 28+	7065	22.64	1.28	JUN. 16-17	38.9	7.6	FEB. 20-21		80	56	58							5.8	119	90	156	106	11	62	16	20	64	156	30
NORTH PLATTE	62.9	34.8	48.9	99	AUG. 26	-22	FEB. 28	6470	24.75	2.95	MAY 28-29	27.1	4.8	MAR. 10-11	73	79	50	47	11.1	SSE	57	SE	MAY 15	66	5.5	114	118	133	80	10	53	25	21	40	169	24
OMAHA	60.6	40.9	50.8	95	JUL. 19	-15	JAN. 20	6272	30.70	2.62	AUG. 30-31	36.9	9.5	FEB. 20-21	78	84	60	59	11.2	SSF	56	NW	MAY 7	62	5.9	95	125	145	125	10	52	16	26	56	136	22
OMAHA N OMAHA AP	58.6	39.4	49.0	94	JUL. 7	-15	FEB. 28			3.15	AUG. 30-31		8.7	FEB. 20-21											6.1	86	124	155	120	9	54	13	13	63	139	24
SCOTTSBLUFF	63.1	34.3	48.7	99	AUG. 27	-28	FEB. 28	6384	17.91	1.14	MAY 31-1	22.6	4.4	DEC. 23-24	77	49	45	68	11.8	NW	46*	NW	DEC. 22+		5.6	124	97	144	88	10	53	11	25	32	166	22
VALENTINE	60.8	32.8	46.8	104	AUG. 27	-27	FEB. 28	7128	24.79	2.83	MAY 27-28	26.8	8.2	FEB. 16-17	82	68	53	68	10.8	N#	72	S	AUG. 10	66	5.4	127	110	128	83	7	51	10	29	50	172	40
NEVADA																																				
ELKO	61.9	28.6	45.3	96	AUG. 15+	-24	JAN. 23	7255	8.24	1.23	MAY 14-15	36.6	5.8	MAR. 2-3+	63	48	35	51	6.6	SW	32*	SSW	OCT. 13+		5.0	140	94	131	82	12	21	12	26	35	200	22
ELY	62.0	28.3	45.2	95	AUG. 14	-23	JAN. 23	7302	7.36	.89	OCT. 4-5	36.2	12.3	JAN. 20-21	61	40	34	53	9.2	S	47	S	MAY 19	79	4.8	158	91	116	61	8	24	1	11	21	209	20
LAS VEGAS	80.2	53.1	66.7	112	AUG. 13	17	JAN. 12+	2361	1.45	.45	OCT. 18	T	T	MAR. 9+	36	24	18	29	9.9	SW	44*	WSW	APR. 19	88	3.1	226	74	65	16	0	7	0	137	0	38	0
RENO	66.9	29.6	48.3	95	JUL. 27+	-12	FEB. 27	6124	9.05	1.55	OCT. 13-14	38.1	9.0	MAY 16	76	48	34	60	5.9	SW	50	S	OCT. 13	78	4.4	166	97	102	42	12	18	19	37	13	203	6
WINNEMUCCA	64.6	30.9	47.8	100	AUG. 14+	-22	JAN. 23	6552	6.83	.59	FEB. 19-20	33.5	8.4	FEB. 20	67	46	35	55	7.3	W	51	W	OCT. 10	80	5.1	146	86	133	57	9	5	13	47	16	194	19
NEW HAMPSHIRE																																				
CONCORD	56.7	32.9	44.8	97	MAY 19	-19	FEB. 12	7586	36.82	4.24	OCT. 5-6	54.5	7.3	FEB. 24	81	78	50	63	5.8	NW	52	NW	DEC. 30	56	6.0	103	103	159	117	13	20	49	4	49	177	27
MT WASHINGTON OBS	32.8	19.1	26.0	64	MAY 19	-41	DEC. 30	14147	90.00	5.21	OCT. 6-7	209.2	15.1	MAR. 12-13	83	83	83	82	32.0	W#	133Y	W	JAN. 27	40	7.1	71	82	212	184	52	18	311	0	176	250	62
NEW JERSEY																																				
ATLANTIC CITY	62.4	43.8	53.1	96	MAY 19	4	DEC. 31+	5090	43.43	2.81	AUG. 28	20.7	6.4	JAN. 1-2	78	79	54	67	10.1	WNW	44	E	MAR. 6	55	5.9	99	110	156	110	6	26	44	8	17	106	0
NEWARK	61.2	44.7	53.0	98	MAY 19	2	DEC. 31+	5264	40.85	2.37	MAR. 11-12	23.7	4.3	DEC. 21-22	70	71	52	60	9.8	SW	55	NW	DEC. 31		5.9	101	122	142	117	10	20	16	14	27	90	0
TRENTON U	61.1	44.2	52.7	96	MAY 19	0	FEB. 11	5321	44.02	3.11	AUG. 27-28	25.9	4.0	DEC. 21-22					9.0	S#	48	NW	DEC. 31		5.8	106	119	140	113	9	30	0	10	26	98	1
NEW MEXICO																																				
ALBUQUERQUE	70.0	42.5	56.3	98	AUG. 9	- 6	JAN. 11	4310	5.39	.87	JAN. 25	5.2	3.5	JAN. 25	60	39	29	48	7.7	N	49	SW	OCT. 16+		3.7	200	94	71	52	2	26	5	67	5	114	2
CLAYTON	68.9	38.9	53.9	98	AUG. 9	-12	JAN. 10	4782	10.43	1.76	JUN. 31-1	6.4	1.9	JAN. 8-9	66	36	36								4.4	157	116	92	57	2	52	1	35	16	131	8
RATON	66.4	32.4	49.4	94	AUG. 10+	-24	JAN. 11	5894	9.75	1.55	SEP. 19-20	20.7	5.1	NOV. 16-17		34									4.6	151	118	96	63	8	68	12	19	14	174	10
ROSWELL	76.0	41.6	58.8	102	JUN. 22	-24	JAN. 11	3673	11.81	1.95	SEP. 24-25	3.1	1.2	MAR. 14	72	40	32	57	9.4		50	SW	MAY 19+		4.1	184	91	90	57	1	45	14	105	3	126	4
SILVER CITY	72.2	43.1	57.7	97	AUG. 8	- 9	JAN. 11	3658	13.62	1.47	JUL. 4	7.9	4.3	JAN. 13-14		35	31								3.7	196	95	74	64	4	55	0	45	2	92	1
NEW YORK																																				
ALBANY	56.5	36.2	46.4	95	JUL. 8	-18	FEB. 11	7168	29.30	1.21	FEB. 23-24	57.5	12.6	FEB. 14-15	79	78	54	64	8.4	S	41	W	APR. 25	59	6.7	75	107	183	118	14	21	19	7	58	151	14
BINGHAMTON	56.4	37.6	47.0	96	JUL. 8	-14	FEB. 11	6955	29.71	2.88	OCT. 11	48.2	6.0	NOV. 3	81		66	70	9.6	NNW	50	SE	FEB. 14	52	7.1	58	103	204	126	16	28	49	11	59	151	7
BUFFALO	55.6	37.0	46.3	93	AUG. 31	- 8	FEB. 11	7124	28.55	1.93	SEP. 27-28	100.3	10.6	FEB. 23-24	76	77	61	68	10.7	WSW	50	SW	JAN. 7	54	7.2	57	106	202	168	28	38	20	4	61	161	6
NEW YORK CENT PK	61.5	45.3	53.4	99	MAY 19	4	DEC. 31+	5108	37.15	2.33	MAR. 12	14.9	2.9	FEB. 9	68	69	50	58	9.2	SW	51	NE	MAR. 6	60	5.0	149	110	106	109	6	17	0	18	22	79	0
NEW YORK LAGUARDIA	59.8	46.0	52.9	95	MAY 19	7	DEC. 31+	5237	35.15	1.83	MAR. 12	18.2	3.7	FEB. 9	70	71	55	62	12.3	NE	54	NW	DEC. 31		5.9	101	126	138	111	7	20	13	9	28	80	0
ROCHESTER	56.3	37.3	46.8	94	AUG. 31	-11	FEB. 11	6989	29.25	2.11	SEP. 27-28	73.1	9.3	FEB. 23-24	81	82	60	69	11.0	WSW	54	SW	MAY 24	57	6.7	73	103	189	131	23	35	12	9	56	157	9
SYRACUSE	56.6	37.9	47.3	97	JUL. 8	-12	FEB. 2	6913	30.64	1.30	AUG. 6-7	93.1	6.4	DEC. 21-22	76	76	55	64	11.3	WNW	54	W	OCT. 23	57	6.6	87	97	181	153	27	31	5	6	52	149	10
NORTH CAROLINA																																				
ASHEVILLE U	66.1	45.3	55.7	90	AUG. 20+	- 6	DEC. 13	4266	40.04	1.62	AUG. 6-7+	26.1	6.9	JAN. 1		86	56	66	7.5	NW#	35	NW	AUG. 6	59	5.6	122	117	126	137	7	47	64	3	12	89	2

See reference notes at end of table

ANNUAL CLIMATOLOGICAL DATA
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State and Station	Temperature							Heating degree days	Precipitation						Relative humidity				Wind					Possible sunshine	Average sky cover sunrise to sunset	Number of days										
	Averages			Extremes								Snow, Sleet									Fastest mile					Sunrise to sunset							Max temp		Min temp.	
	Daily maximum	Daily minimum	Annual	Highest	Date	Lowest	Date		Total	Greatest in 24 hours	Date (s)	Total	Greatest in 24 hours	Date (s)	1:00a.m. EST	7:00a.m. EST	1:00p.m. EST	7:00p.m. EST	Average speed	Prevailing direction	Speed	Direction	Date			Clear, 0-0.3	Partly cloudy, 0.4-0.7	Cloudy, 0.8-1.0	Precipitation .01 inch or more	Snow, Sleet 1.0 inch or more	Thunderstorms	Heavy fog	90 °F and above	32 °F and below	32 °F and below	0 °F and below
NORTH CAROLINA	°F	°F	°F	°F		°F		Base 65 °F	In	In.		In	In		%	%	%	%	M.p.h.		M.p.h.			%	Tenths											
CAPE HATTERAS R	68.4	53.7	61.1	92	JUL. 15	19	DEC. 13	2923	83.22	8.11	AUG. 27-28	3.5	3.5	JAN. 12	84	81	67	80	11.6	NNE	60	NNW	MAR. 7		6.0	106	99	160	128	1	42	17	1	3	31	0
CHARLOTTE	70.2	49.3	59.8	98	JUL. 16+	2	DEC. 13	3568	47.78	3.57	JAN. 5-6	13.1	6.0	JAN. 1	75	83	54	60	7.2	NNE	59	NW	JUL. 23	61	5.8	110	107	148	112	5	39	42	52	5	70	0
GREENSBORO	67.6	46.5	57.1	96	JUL. 15	0	DEC. 13	4163	49.12	3.65	SEP. 16-17	25.8	6.6	JAN. 1	81	85	55	64	8.0	SW	38	NNE	APR. 15+	56	6.0	108	100	157	125	6	49	35	37	7	92	1
RALEIGH	68.9	47.4	58.2	95	JUL. 16+	4	DEC. 13	3833	48.27	3.82	NOV. 9-10	16.1	5.0	JAN. 10	81	85	55	66	8.1	SSW	69	SW	JUL. 21	53	6.0	98	111	156	108	8	47	40	28	4	87	0
WILMINGTON	72.6	52.4	62.5	97	JUL. 15	10	DEC. 13	2777	57.68	4.18	JUN. 13-14	3.1	1.0	FEB. 12+	86	87	58	75	9.7	N	59	N	NOV. 26	62	6.0	101	109	155	128	2	43	25	35	3	49	0
WINSTON-SALEM	67.5	47.7	57.6	96	JUL. 15	4	DEC. 13+	4031	51.33	3.60	DEC. 3-4	29.3	8.2	JAN. 1	73	77	53	59	9.1	NE	54	NNE	JUN. 6		5.7	121	100	144	121	6	43	41	36	6	81	0
NORTH DAKOTA																																				
BISMARCK	54.7	30.2	42.5	99	AUG. 21	-34	FEB. 28	8479	14.91	1.58	MAY 17	20.7	2.8	FEB. 20-21	75	80	58	56	8.9	WNW	50	N	JAN. 6	57	6.6	79	100	186	99	8	33	22	15	72	175	44
DEVILS LAKE U	48.5	28.1	38.3	91	AUG. 21	-33	FEB. 28	9834	20.01	2.36	AUG. 10-11	46.1	6.7	MAR. 28		87	66	66	8.3	S#	42	NE	MAY 13	59	6.4	89	106	170	124	17	25	23	4	107	178	62
FARGO	51.3	31.3	41.3	97	AUG. 27	-34	FEB. 28	8983	26.65	2.08	AUG. 10-11	39.5	3.6	MAR. 3-4	81	83	67	67	10.4	SSE	60	NW	APR. 8	52	6.9	72	103	190	107	16	36	18	7	88	168	52
WILLISTON U //	53.8	29.4	41.6	96	AUG. 21	-41	FEB. 28	8698	18.27	1.98	JUL. 6	32.3	5.0	OCT. 15		84	61	56	9.9	NW#	57	N	OCT. 15	56	6.7	72	111	182	102	10	14	8	13	70	174	52
OHIO																																				
AKRON	58.7	39.7	49.2	92	AUG. 30+	- 9	JAN. 10	6419	28.98	1.68	JUL. 2-3	66.2	7.5	DEC. 5-6+	78	81	57	65	9.5	SW	51	WSW	FEB. 14		6.9	65	110	190	145	24	29	28	14	49	136	8
CINCINNATI OBS	63.8	44.4	54.1	100	AUG. 20	- 8	JAN. 10	5187	40.17	2.05	MAR. 20-21	20.2	3.4	FEB. 1	78	80	57	62	5.9	SW#	28	W	APR. 13	59	6.6	76	94	195	126	10	46	16	24	30	107	5
CLEVELAND	58.3	39.7	49.0	92	AUG. 25+	- 8	JAN. 10	6410	31.58	2.08	JUL. 2-3	7[illegible].4	9.3	DEC. 6-7	7[illegible]	80	62	67	10.5	S	38	N	NOV. 10+	56	7.0	67	95	203	146	20	35	15	13	54	136	7
COLUMBUS	60.3	40.1	50.2	96	AUG. 20	- 9	JAN. 10	6171	31.24	1.45	AUG. 4	38.1	8.6	MAR. 5	79	82	59	64	7.9	S	45	SW	JAN. 7	54	6.8	68	109	188	130	15	29	19	15	43	143	6
DAYTON	60.7	41.3	51.0	98	AUG. 20	-11	JAN. 10	6007	27.74	1.57	JUL. 14-15	36.0	5.2	MAR. 4-5	78	83	59	64	9.8	SSW	39	W	FEB. 13+	52	6.6	73	113	179	122	12	37	23	17	43	131	7
MANSFIELD	57.7	39.1	48.4	92	AUG. 20+	-12	JAN. 10	6613	29.20	1.94	JUN. 30	47.2	5.4	DEC. 6-7		84	63								6.9	64	111	190	124	15	38	23	4	58	140	10
SANDUSKY U	58.3	42.7	50.5	95	JUN. 18	- 8	JAN. 10	6135	31.76	1.96	JUL. 9-10	49.4	11.0	DEC. 6-7					9.1		66	W	MAY 23	64	5.7	109	122	134	130	15	35	11	15	52	120	5
TOLEDO	58.5	38.4	48.5	95	AUG. 24+	-10	DEC. 27	6649	26.36	1.60	SEP. 13-14	44.1	7.5	MAR. 5	81	84	59	66	9.0	WSW	51	NW	APR. 30		6.6	77	109	179	125	11	32	13	20	56	149	12
YOUNGSTOWN	57.0	38.0	47.5	92	MAY 18	- 9	JAN. 10	6825	28.05	1.71	NOV. 9-10	80.8	9.2	MAR. 5-6	78	81	60	66	9.9	SW	35	W	APR. 22+		7.0	61	104	200	158	27	28	35	5	57	140	12
OKLAHOMA																																				
OKLAHOMA CITY	71.2	49.5	60.4	106	AUG. 11+	- 1	JAN. 11	3681	27.49	3.39	JUN. 1-2	10.5	6.1	JAN. 5	76	82	58	56	13.0	SSE	66	SW	MAY 25	68	5.3	132	100	133	83	3	49	26	68	10	75	1
TULSA	70.4	48.7	59.6	102	AUG. 19	0	JAN. 11+	3898	41.46	3.27	SEP. 3	5.5	1.8	FEB. 27	75	83	59	57	10.8	SSE	37	SE	MAR. 28	61	5.5	128	93	144	94	3	49	16	62	12	86	2
OREGON																																				
ASTORIA	57.6	43.1	50.4	86	SEP. 17	14	JAN. 21	5250	64.23	3.09	OCT. 8-9	5.6	4.0	FEB. 28	91	81	73	88	9.4	SSE	52*	SSW	APR. 27		7.8	44	65	256	189	2	7	62	0	2	38	0
BURNS U	59.7	32.1	45.9	95	JUL. 23	-26	JAN. 21	7081	12.07	1.41	OCT. 9-10	33.4	5.6	JAN. 19-20	73	56	43	62							5.6	124	85	156	86	9	7	14	14	22	182	7
EUGENE	62.4	41.5	52.0	96	JUL. 27+	6	JAN. 22	4803	37.44	2.55	NOV. 25-26	3.9	2.0	JAN. 19		74	59		7.5		63*	S	OCT. 12		6.7	77	100	188	118	2	0	69	12	5	53	0
MEACHAM	52.0	33.9	43.0	89	JUL. 24	-12	JAN. 21	8035	27.90	1.27	OCT. 7	97.1	10.8	MAR. 3-4		65									6.5	100	74	191	137	27	3	33	0	43	168	7
MEDFORD	65.8	38.5	52.2	103	JUL. 27+	0	JAN. 22	5025	23.13	3.69	DEC. 1-2	13.5	5.2	JAN. 19	86	69	48	72	4.6	WNW	40*	SSW	OCT. 12+		5.8	117	84	164	97	3	5	72	46	9	93	1
PENDLETON	63.4	42.2	52.8	104	JUL. 24	-10	JAN. 21	4965	12.17	.70	MAY 19-20	10.2	6.2	JAN. 19-20	68	54	47	61	8.9	W	49*	W	JAN. 3		6.1	110	77	178	98	4	6	40	28	16	59	4
PORTLAND U	61.9	46.6	54.3	93	JUL. 26	16	JAN. 21	4127	38.97	2.37	NOV. 19-20	8.1	4.1	FEB. 27-28	AP 82	AP 71	AP 58	AP 75	AP 8.0	AP ESE	AP 88	AP S	OCT. 12	AP 43	AP 7.1	AP 68	AP 73	AP 224	134	2	AP 4	AP 54	6	3	21	0
ROSEBURG	65.4	41.4	53.4	101	JUL. 27	- 1	JAN. 22	4414	28.22	1.83	DEC. 1-20	7.5	7.5	JAN. 19		73	55		4.4	N#	50	S	OCT. 12	55	6.6	76	105	184	127	1	3	76	23	3	50	1
SALEM	62.0	40.6	51.3	97	JUL. 26	8	JAN. 22	5039	34.89	2.13	NOV. 24-25	13.5	5.4	FEB. 23	88	74	60	81	7.5	S	58*	S	OCT. 12		7.0	69	80	216	136	4	3	59	15	5	60	[illegible]
SEXTON SUMMIT R	56.2	39.7	48.0	89	JUL. 27+	- 2	JAN. 21	6315	41.04	3.02	DEC. 1-2	57.6	8.5	JAN. 19		68			11.4	S					5.1	152	61	152	113	15	1	136	0	22	98	1
PACIFIC AREA																																				
CANTON ISLAND	88.1	77.8	83.0	91	NOV. 28+	71	APR. 24	0	15.81	1.81	APR. 28-29	.0	.0		79	80	63	75	12.7	ENE	28*	NE	SEP. 16+		4.8	144	154	67	101	0	1	0	30	0	0	0

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State and Station	Temperature							Heating degree days	Precipitation						Relative humidity				Wind					Possible sunshine	Average sky cover sunrise to sunset	Number of days										
	Averages			Extremes								Snow, Sleet									Fastest mile					Sunrise to sunset							Max. temp.		Min. temp.	
	Daily maximum	Daily minimum	Annual	Highest	Date	Lowest	Date		Total	Greatest in 24 hours	Date (s)	Total	Greatest in 24 hours	Date (s)	1:00a.m. E.S.T.	7:00a.m. E.S.T.	1:00p.m. E.S.T	7:00p.m. E.S.T	Average speed	Prevailing direction	Speed	Direction	Date			Clear, 0-0.3	Partly cloudy, 0.4-0.7	Cloudy, 0.8-1.0	Precipitation .01 inch or more	Snow, Sleet 1.0 inch or more	Thunderstorms	Heavy fog	90 °F. and above	32 °F. and below	32 °F. and below	0 °F. and below
PACIFIC AREA	°F	°F	°F	°F		°F		Base 65 °F	In.	In.		In.	In.		%	%	%	%	M.p.h.		M.p.h.			%	Tenths											
ENIWETOK	87.1	77.8	82.5	91	OCT. 9	73	DEC. 16+	0	65.32	4.04	DEC. 16	.0	.0		79	80	72	74	14.6										225	0	3	0	19	0	■	0
KOROR R	87.0	75.6	81.3	91	NOV. 16+	72	AUG. 2+	0	172.57	8.23	JUL. 7-8	.0	.0		91	84	79	87	6.8	NE	29	SW	JUL. 29	49	9.7	■	10	355	286	■	34	0	38	0	0	0
KWAJALEIN	86.4	76.7	81.6	89	DEC. 14+	72	OCT. 17+	0	92.54	3.94	MAY 29-30	.0	.0		80	81	74	77	14.4	ENE	41*	E	JUL. 5		7.5	35	119	211	245	0	7	0	0	0	0	0
MAJURO	85.5	77.1	81.3	88	OCT. 7+	72	NOV. 20	0	151.40	5.86	MAY 13-14	.0	.0		82	82	76	79	10.9	ENE	38	E	MAY 21	61	8.2	14	109	242	280	■	16	0	0	0	0	0
PONAPE R	86.8	74.2	80.5	91	DEC. 10+	70	DEC. 17+	0	215.60	5.71	SEP. 28-29	.0	.0		91	83	79	86	5.3	NE	32	E	DEC. 2	48	9.3	0	39	326	306	■	42	0	23	0	0	0
TAGUAC GUAM R	85.0	72.9	79.0	89	NOV. 17+	60	JAN. 20+	0	128.46	5.49	FEB. 3-4	.0	.0						7.5	E#	80	NE	NOV. 11						26■	■	25	0	■	■	0	0
TRUK MOEN ISLAND	86.1	76.0	81.1	89	OCT. 27+	70	JUL. 15	0	179.18	10.41	NOV. 7-8	.0	.0		86	81	77	81	6.2	NNE	45	N	NOV. 8	29	8.8	4	74	287	264	0	25	0	0	0	0	0
WAKE ISLAND	84.8	74.7	79.8	90	SEP. 8+	67	FEB. 23+	0	48.61	3.19	OCT. 21	.0	.0		79	80	71	74	12.7	ENE	37*	E	OCT. 18		5.8	85	164	116	172	0	12	0	6	0	0	0
YAP R	86.4	75.5	81.0	91	OCT. 18+	71	APR. 25+	0	148.97	6.57	APR. 16-17	.0	.0		88	83	81	86	8.7	NE	55	W	AUG. 2	68	9.9	0	3	362	273	0	17	0	19	0	■	0
PENNSYLVANIA																																				
ALLENTOWN	59.9	39.7	49.8	97	MAY 19	- 6	FEB. 11	6133	41.58	1.78	JAN. 6-7	37.8	4.8	DEC. 21-22	80	81	56	65	9.8	SW	52	W	AUG. 20+		6.0	105	109	151	115	13	28	19	12	37	139	3
ERIE	56.0	40.3	48.2	93	JUL. 8	- 3	FEB. 11	6623	36.90	2.48	JUN. 10	63.6	9.2	DEC. 10	76	77	64	69	12.8	S	43	SE	MAR. 12+		6.8	76	100	189	145	20	43	16	2	53	130	4
HARRISBURG	61.5	41.8	51.7	100	AUG. 20	0	FEB. 11	5762	39.58	2.57	OCT. 4-5	50.2	8.8	MAR. 6	76	79	56	63	7.5	WNW	36	NE	MAR. 6	57	6.4	79	111	175	128	13	29	16	21	40	128	1
PHILADELPHIA	61.5	42.6	52.1	96	MAY 19	3	DEC. 31+	5451	42.62	3.62	JUN. 23-24	30.3	6.8	MAR. 6	77	76	54	63	9.2	WSW	48	NE	MAR. 6	59	6.2	93	112	160	112	8	23	20	10	26	116	0
PITTSBURGH	59.2	39.5	49.4	95	AUG. 20	- 5	DEC. 13+	6295	31.62	1.75	JUL. 2-3	49.0	14.7	MAR. 5-6	78	81	57	62	8.6	WSW	46	W	FEB. 14	52	7.1	56	99	210	138	16	33	19	13	44	134	6
READING U	61.6	44.0	52.8	96	MAY 19	3	DEC. 31	5388	41.27	3.30	MAY 31	33.9	6.0	FEB. 9					9.8	NW#	65	NW	DEC. 31	58	5.9	105	108	152	120	9	17	7	15	33	105	0
SCRANTON	57.6	38.8	48.2	94	JUL. 8	-10	FEB. 11	6648	31.96	2.61	OCT. 4-5	41.6	4.4	OCT. 26	73	77	55	61	8.2	SW	45	W	DEC. 30	54	6.5	79	109	177	124	14	25	31	9	54	147	4
WILLIAMSPORT	59.3	38.3	49.0	95	AUG. 20+	- 3	FEB. 11	6352	40.66	3.84	OCT. 4-5	56.9	6.7	DEC. 6-7	79	74	54	57	7.9	W	41	NNW	DEC. 30		6.7	69	121	175	138	18	29	35	14	42	144	3
RHODE ISLAND																																				
BLOCK ISLAND	54.9	42.7	48.8	88	AUG. 8	- 4	DEC. 31+	6081	59.59	4.06	JAN. 6-7	24.1	7.1	FEB. 14-15		74	62								6.2	99	109	157	117	7	15	81	0	32	95	2
PROVIDENCE	57.6	39.7	48.7	89	JUN. 1	- 5	DEC. 31+	6243	50.33	6.63	OCT. 5-6	46.0	16.9	FEB. 14-15	77	77	55	67	11.1	NNW	46	NNW	DEC. 30	57	6.0	102	106	157	118	13	22	26	0	33	125	3
SOUTH CAROLINA																																				
CHARLESTON	74.8	53.5	64.2	97	MAY 26	8	DEC. 13	2378	61.15	4.60	AUG. 3	T	T	DEC. 11+	84	85	56	73	8.4	NNE	55Y	SW	NOV. 22	66	5.8	103	110	152	119	0	64	25	43	2	39	0
COLUMBIA	75.4	51.4	63.4	101	JUL. 24	6	DEC. 13	2750	42.69	3.69	FEB. 22	T	T	MAR. 6+	79	84	49	61	7.1	SW	40	NNW	AUG. 7	57	5.6	120	104	141	110	0	59	39	93	4	56	0
FLORENCE	74.4	51.6	63.0	100	JUL. 23+	8	DEC. 13	2793	35.76	2.86	FEB. 22	.3	.3	JAN. 12	80	82	51	64	8.4	NNE	35	SW	JAN. 6		5.7	116	106	143	115	0	56	45	83	4	48	0
SOUTH DAKOTA																																				
HURON	54.9	32.1	43.5	94	AUG. 27	-39	FEB. 28	8245	31.71	2.16	FEB. 17-18	75.6	17.5	FEB. 17-18	86	88	67	68	11.9	SSE	65	NW	MAY 23	59	6.1	105	94	166	105	17	51	31	8	78	175	44
RAPID CITY	59.8	35.0	47.4	99	AUG. 21	-18	FEB. 28+	6801	22.50	2.19	MAY 21-22	21.8	3.6	FEB. 16-17	75	53	53	70	11.1	NNW	54	SW	JUN. 14	56	5.9	111	100	154	95	9	49	19	19	43	152	29
SIOUX FALLS	56.0	35.1	45.6	94	AUG. 27+	-31	FEB. 28	7642	30.47	2.24	MAY 21-22	73.5	26.0	FEB. 17-18	79	84	62	61	10.4	NW	44*	E	AUG. 9		6.1	100	102	163	107	17	54	33	11	72	164	34
TENNESSEE																																				
BRISTOL	66.4	45.7	56.1	93	AUG. 20	- 9	DEC. 13	4386	43.60	2.95	SEP. 15-16	31.5	5.2	DEC. 24-25	80	84	56	62	5.4	WSW	46	NNW	AUG. 21		6.3	89	105	171	140	11	45	38	17	11	90	4
CHATTANOOGA	71.3	49.3	60.3	100	JUL. 23	- 2	DEC. 13	3551	55.39	3.74	FEB. 22-23	5.2	3.2	JAN. 9-10	83	86	55	60	7.0	S	42	NW	APR. 13+	60	5.9	116	93	156	121	3	56	31	79	6	6■	1
KNOXVILLE	69.5	48.4	59.0	96	SEP. 3+	- 2	DEC. 13	3836	54.58	4.47	JUL. 24-25	23.9	12.0	JAN. 9-10	74	80	54	58	7.9	NE	59	SW	MAR. 21	54	6.3	90	100	175	125	6	50	35	48	9	70	1
MEMPHIS	71.1	51.8	61.5	99	AUG. 19	- 4	JAN. 12	3403	43.01	2.56	AUG. 30	8.0	4.7	JAN. 9	78	83	59	63	8.6	S	39	NE	JUL. 6	67	5.5	121	100	144	109	2	53	17	68	6	58	3
NASHVILLE	69.7	48.0	58.9	101	AUG. 19	- 7	DEC. 13	3979	57.57	5.09	SEP. 13	12.9	4.7	DEC. 24	82	87	59	64	7.2	S	52	NW	FEB. 27	58	6.1	99	102	164	109	5	56	14	74	10	84	5
OAK RIDGE AREA STA	68.3	46.7	57.5	95	AUG. 20+	- 5	DEC. 13	4024	56.04	2.88	SEP. 16																		128				32	9	83	4
OAK RIDGE	68.2	46.6	57.4	95	AUG. 20+	- 3	DEC. 13	4118	61.09	3.43	SEP. 16-17	18.2	8.3	JAN. 9-10					3.9		48		MAY 21		5.6	133	77	155	127	5	47	28	34	10	89	4

See reference notes at end of table

ANNUAL CLIMATOLOGICAL DATA
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State and Station	Temperature							Heating degree days	Precipitation						Relative humidity				Wind					Possible sunshine	Average sky cover sunrise to sunset	Number of days										
	Averages			Extremes								Snow, Sleet									Fastest mile					Sunrise to sunset							Max. temp		Min temp.	
	Daily maximum	Daily minimum	Annual	Highest	Date	Lowest	Date		Total	Greatest in 24 hours	Date (s)	Total	Greatest in 24 hours	Date (s)	1:00a.m. E.S.T.	7:00a.m. E.S.T.	1:00p.m. E.S.T.	7:00p.m. E.S.T.	Average speed	Prevailing direction	Speed	Direction	Date			Clear, 0-0.3	Partly cloudy, 0.4-0.7	Cloudy, 0.8-1.0	Precipitation .01 inch or more	Snow, Sleet 1.0 inch or more	Thunderstorms	Heavy fog	90 °F and above	32 °F and below	32 °F and below	0 °F and below
TEXAS	°F	°F	°F	°F		°F		Base 65 °F	In.	In.		In	In		%	%	%	%	M.p.h.		M.p.h.			%	Tenths											
ABILENE	77.0	52.7	64.9	104	AUG. 6	6	JAN. 11	2520	27.12	2.82	JUL. 25-26	6.1	5.7	MAR. 14	67	77	49	44	10.3	SSE	46	NW	JUN. 9	71	4.9	155	87	123	62	1	41	5	109	4	56	0
AMARILLO	72.0	45.0	58.5	99	AUG. 10+	- 8	JAN. 11	3852	29.76	4.39	JUN. 17-18	10.8	7.6	NOV. 17	65	75	46	40	13.6	SSW	56	N	MAR. 24	75	4.4	163	108	94	70	2	51	34	77	10	88	3
AUSTIN	79.3	58.0	68.7	105	AUG. 12+	13	JAN. 12+	1671	33.48	4.55	AUG. 24-25	T	T	MAR. 14+	73	83	53	50	9.0	S	47	N	JAN. 5	61	5.3	131	102	132	70	0	48	21	115	4	20	0
BROWNSVILLE	83.0	65.0	74.0	102	AUG. 14	19	JAN. 12	597	15.99	2.96	MAY 1-2	.0	.0		85	89	59	67	12.5	SE	39	E	MAY 1	59	5.4	118	130	117	67	0	15	32	126	2	4	0
CORPUS CHRISTI	81.9	62.6	72.3	103	AUG. 14+	14	JAN. 12	1014	15.49	1.83	DEC. 23-24	T	T	MAR. 1	81	86	58	63	12.8	SSE	56	SE	JUN. 1	65	5.6	114	127	124	64	0	23	27	129	2	9	0
DALLAS	76.0	55.9	66.0	103	AUG. 11+	8	JAN. 11+	2329	54.74	4.92	OCT. 8	5.2	2.2	JAN. 9	70	80	56	52	11.8	SSE	42	SW	MAY 28+	64	5.1	141	100	124	77	3	50	7	94	5	37	0
EL PASO	77.3	50.8	64.1	102	AUG. 29+	- 8	JAN. 11	2550	8.28	1.70	SEP. 4-5	1.6	1.2	JAN. 10	54	35	27	42	7.5	WSW	61	N	AUG. 15+	83	3.5	211	85	69	47	1	28	3	114	3	51	2
FORT WORTH	76.4	55.2	65.8	104	AUG. 10	7	JAN. 11	2434	41.43	3.07	JUL. 26-27	5.1	2.5	MAR. 14	72	82	56	53	12.4	S	51*	N	FEB. 5		5.1	147	90	128	85	2	49	13	99	6	42	0
GALVESTON U	74.5	65.4	70.0	97	AUG. 10	18	JAN. 11+	1162	32.09	2.99	JUN. 19	.0	.0						12.0		42	NE	DEC. 24	67					84	0			11	2	5	0
GALVESTON	75.6	64.7	70.2	97	AUG. 10+	17	JAN. 11	1222	30.37	1.90	NOV. 27	.0	.0		74	77	65	67	10.7	S					5.3	129	113	123	90	0	47	27	55	2	6	0
HOUSTON U	80.0	63.8	71.9	106	AUG. 9	20	JAN. 11+	1052	41.27	3.87	JUN. 3-4	T	T	JAN. 9															97	0			117	2	6	0
HOUSTON	79.9	59.5	69.7	106	AUG. 13	17	JAN. 12+	1298	37.13	2.75	NOV. 27	.0	.0		89	92	64	69	9.9	SSE				67	5.8	100	127	138	94	0	58	45	109	2	10	0
LAREDO	86.7	63.1	74.9	108	AUG. 10	18	JAN. 12	873	13.06	2.18	APR. 22-23	.0	.0		66	79	46	38	11.8	SE	43*	S	JUN. 10		4.5	161	111	93	54	0	25	11	184	1	6	0
LUBBOCK	74.1	46.4	60.3	100	MAY 11	- 4	JAN. 11	3407	18.35	1.55	JUL. 23-24	1.8	1.4	DEC. 23-24	66	78	50	43	14.1	S	58*	S	MAY 12		4.2	172	104	89	76	1	49	14	86	4	89	1
MIDLAND	77.4	51.6	64.5	103	AUG. 7+	- 8	JAN. 11	2592	14.11	2.16	SEP. 4-5	5.8	3.5	MAR. 14	57	72	43	35	11.1	SSE	46*	NW	JUN. 11+		4.5	159	112	94	45	2	34	14	117	3	53	1
PORT ARTHUR	79.6	58.1	68.9	107	AUG. 10	14	JAN. 12	1525	38.94	4.23	NOV. 27	T	T	JAN. 12+	91	93	63	74	9.0	S	56	NE	AUG. 14	62	5.8	99	137	129	92	0	59	38	114	2	16	0
SAN ANGELO	80.6	53.7	67.2	107	AUG. 10+	8	JAN. 11	2205	10.53	1.92	JUL. 15-16	3.1	3.1	MAR. 14-15	61	73	43	39	9.4	SSE	43*	WNW	MAR. 24		4.4	177	87	101	51	1	39	4	139	2	56	0
SAN ANTONIO	81.2	58.9	70.1	106	AUG. 13	10	JAN. 12	1493	23.90	4.00	NOV. 26-27	T	T	MAR. 14	73	82	53	46	10.1	SSE	37	N	JAN. 9	63	4.9	143	111	111	60	0	30	28	137	1	16	0
VICTORIA	80.7	60.1	70.4	107	AUG. 13	16	JAN. 12	1240	25.89	3.60	SEP. 9-10	.0	.0			89	56	61	10.9		54Y		JAN. 9		5.5	115	129	121	73	0	45	30	118	2	12	0
WACO	78.6	56.9	67.8	108	AUG. 10	13	JAN. 11+	1986	22.60	2.18	MAY 28-29	1.0	1.0	MAR. 14	72	83	54	51	13.7	SSE	46*	WSW	MAR. 24+		5.0	152	92	121	73	1	39	14	120	4	31	0
WICHITA FALLS	76.0	51.8	63.9	111	AUG. 11	- 1	JAN. 11	2814	31.14	2.99	JUL. 26	2.6	1.0	JAN. 9	70	79	51	49	10.1	S	48*	W	JUN. 7+		4.9	161	76	128	66	1	49	16	102	8	61	1
UTAH																																				
MILFORD	65.8	31.2	48.5	101	AUG. 14	-22	JAN. 24	6445	7.15	1.11	SEP. 28	36.3	5.3	JAN. 20-21		38	31								4.3	168	92	105	65	16	27	11	65	29	179	24
SALT LAKE CITY	63.4	37.7	50.6	101	AUG. 15	-14	JAN. 23	6118	14.90	2.35	JUL. 12-13	55.9	9.7	MAR. 9-10+	70	49	44	65	9.1	S	49	S	JAN. 20	69	5.4	132	90	143	78	19	34	27	56	47	133	7
WENDOVER	62.5	41.2	51.9	99	JUL. 5	- 3	JAN. 23	5831	5.21	.94	OCT. 4-5	9.9	2.3	JAN. 19-20	50	39	32								4.6	160	95	110	47	5	29	9	44	42	126	3
VERMONT																																				
BURLINGTON	52.6	31.3	42.0	92	JUL. 8	-25	FEB. 2	8533	32.49	1.75	JUL. 31	71.0	10.7	FEB. 24	78	77	58	68	7.8	S	47	S	JAN. 16	53	6.9	75	91	199	138	18	26	19	2	67	180	41
VIRGINIA																																				
LYNCHBURG	64.5	45.4	55.0	94	AUG. 21	3	DEC. 13	4607	39.62	2.29	NOV. 9-10	50.3	11.3	MAR. 5-6		82	57	66	8.1		35	NE	NOV. 27	53	6.1	94	113	158	120	10	37	34	10	15	94	0
NORFOLK	65.7	49.4	57.6	95	AUG. 21	12	JAN. 13	3949	52.13	3.57	JUL. 3-4	18.4	4.2	JAN. 28	81	81	64	72	11.1	SW	52	SE	NOV. 9		6.0	98	115	152	115	4	30	25	16	13	74	0
RICHMOND	68.0	45.8	56.9	97	JUL. 19+	4	JAN. 11	4173	48.62	3.73	JUN. 12-13	47.0	12.1	MAR. 5-6	82	84	55	69	7.6	NNE	45	N	MAY 8	56	6.3	96	103	166	114	9	23	34	42	11	92	0
ROANOKE	65.8	45.3	55.6	96	AUG. 21+	2	DEC. 13+	4529	41.22	3.00	NOV. 9	39.7	8.4	DEC. 24-25	74	77	53	60	8.7	SE	46	N	MAY 15		6.0	100	115	150	124	11	39	24	29	12	96	0
WASHINGTON																																				
OLYMPIA	59.9	39.1	49.5	94	JUL. 23	4	JAN. 21	5632	51.04	4.33	NOV. 19	13.8	7.6	FEB. 28-1	90	77	63	85	6.9	SW	58*	SW	OCT. 12		7.6	45	82	238	164	5	2	93	6	2	82	0
SEATTLE-TACOMA	58.5	43.4	51.0	88	JUL. 28+	13	JAN. 21	5125	35.79	1.92	NOV. 24-25	9.7	7.2	FEB. 28-1	86	77	64	78	9.3	SSW	45*	SSW	APR. 27		7.4	56	78	231	155	2	4	57	0	2	40	0
SEATTLE	59.8	47.4	53.6	90	JUL. 28+	20	JAN. 21	4213	30.52	1.40	NOV. 24-25	8.2	7.0	FEB. 28-1	84	74	61	76	5.9	SSE	65	SW	OCT. 12	46	7.5	52	81	232	153	2	5	32	2	2	16	0
SPOKANE	56.8	37.2	47.0	97	JUL. 25+	-13	JAN. 21+	6775	17.02	.89	APR. 27	36.9	5.9	JAN. 16-17	78	64	52	67	8.7	SSW	50	SW	NOV. 20+	59	6.9	76	88	201	113	12	16	65	16	34	117	7

See reference notes at end of table.

ANNUAL CLIMATOLOGICAL DATA
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State and Station	Temperature							Heating degree days	Precipitation						Relative humidity				Wind					Possible sunshine	Average sky cover sunrise to sunset	Number of days										
	Averages			Extremes								Snow, Sleet									Fastest mile					Sunrise to sunset							Max. temp.		Min temp.	
	Daily maximum	Daily minimum	Annual	Highest	Date	Lowest	Date		Total	Greatest in 24 hours	Date (s)	Total	Greatest in 24 hours	Date (s)	1:00am E.S.T.	7:00a m. E.S.T	1:00p.m. E.S.T	7:00p.m. E.S.T.	Average speed	Prevailing direction	Speed	Direction	Date			Clear, 0-0.3	Partly cloudy, 0.4-0.7	Cloudy, 0.8-1.0	Precipitation .01 inch or more	Snow, Sleet 1.0 inch or more	Thunderstorms	Heavy fog	90 °F and above	32 °F and below	32 °F and below	0 °F and below
WASHINGTON	°F	°F	°F	°F		°F		Base 65 °F	In.	In.		In.	In.		%	%	%	%	M.p.h.		M.p.h.			%	Tenths											
STAMPEDE PASS R	45.6	33.5	39.6	81	JUL. 30+	- 2	JAN. 19	9190	84.97	7.94	NOV. 19-20	362.3	19.1	NOV. 29-30	90	83	77								7.7	54	56	255	200	74	3	261	0	71	175	2
TATOOSH ISLAND	53.0	44.8	48.9	68	SEP. 4+	25	JAN. 19	5761	76.76	3.06	NOV. 18-19	14.7	5.6	FEB. 27-28	87	83	81	86	15.3	ENE	80	SW	NOV. 25	37	7.9	41	67	257	190	5	5	86	0	1	13	0
WALLA WALLA U	63.1	44.7	53.9	103	JUL. 24	1	JAN. 21	4681	18.34	1.10	DEC. 1-2	6.9	2.9	FEB. 28-01		59			4.9	W#	37	W	JAN. 7	55	6.5	94	82	189	98	2	8	34	24	18	61	0
YAKIMA	63.1	36.6	49.9	101	JUL. 25	1	JAN. 22	5792	7.46	.64	OCT. 11	9.1	2.3	MAR. 4-5	79	57	43	68	6.8	WNW	44*	WSW	JAN. 25		6.0	106	98	161	72	5	8	16	25	17	127	0
WEST INDIES																																				
SAN JUAN P.R. U	83.9	73.2	78.6	94	OCT. 19+	65	FEB. 15	0	56.50	3.15	DEC. 21-22	.0	.0		AP 88	AP 85	AP 66	AP 78	AP 7.1	AP ENE	AP 34	AP E	JAN. 22	AP 58	AP 6.0	AP 46	AP 226	AP 93	190	AP 0	28	0	17	0	0	0
WEST VIRGINIA																																				
CHARLESTON	64.8	44.4	54.6	95	AUG. 20	- 9	JAN. 11	4872	49.27	2.27	NOV. 9-10	36.6	7.3	DEC. 5-6	82	85	58	63	5.6	SW	35	WSW	JAN. 15		7.1	55	114	196	150	11	41	118	17	18	100	5
HUNTINGTON	64.0	43.6	53.8	96	AUG. 20	- 5	JAN. 11	4592	45.49	4.27	JUL. 1-2	16.7	2.5	DEC. 5-6	83	87	62	65	6.1	SSW	29	SW	JAN. 15		6.8	69	106	190	148	8	39	55	10	20	111	5
PARKERSBURG U	63.9	43.4	53.7	98	AUG. 20	- 6	JAN. 11	5167	39.32	2.14	SEP. 1-2	30.7	4.0	FEB. 1					6.1		40	W	JAN. 26	47					138	13	37	16	18	26	112	5
WISCONSIN																																				
GREEN BAY	52.9	33.9	43.4	90	AUG. 28+	-29	MAR. 1	8142	27.42	1.21	JUN. 17-18	57.9	5.9	FEB. 25-26	82	84	67	70	7.9	SW	47	S	NOV. 20	48	6.6	83	97	185	121	21	39	28	2	74	159	38
LA CROSSE	54.2	36.6	45.4	92	AUG. 19	-28	MAR. 1	7633	27.05	3.92	AUG. 30-31	61.2	7.5	MAR. 4		82	62	64	10.3	S	54*	WSW	MAY 22		6.8	72	106	187	107	17	40	35	5	73	156	30
MADISON	54.6	34.3	44.5	93	AUG. 23	-29	MAR. 1	7860	21.43	2.16	JUL. 1-2	43.4	4.7	FEB. 21	81	83	63	66	9.3	S	50	W	JUN. 17	50	6.8	67	112	186	120	15	38	21	3	75	171	29
MILWAUKEE	53.8	36.0	44.9	93	AUG. 19+	-14	DEC. 26	7662	21.91	1.60	JUL. 2	67.2	12.8	JAN. 6-7	80	82	68	70	10.8	SSW	39	W	JUL. 22	53	6.5	87	94	184	116	17	31	29	5	77	155	23
WYOMING																																				
CASPER	58.6	33.1	45.9	94	JUL. 6	-30	JAN. 9	7189	14.01	2.49	OCT. 5-6	42.9	6.1	JAN. 7-8	69	45	41	63	6.1	SW	40*	W	AUG. 26		5.6	125	105	139	91	11	48	10	16	39	156	24
CHEYENNE	59.0	32.6	45.8	94	AUG. 14	-24	FEB. 27	7118	14.62	.99	SEP. 24	39.1	10.0	JAN. 7-8	67	42	47	65	13.0	WNW	57	W	NOV. 20	63	5.6	113	113	139	102	11	68	24	5	42	161	17
LANDER	58.3	31.5	44.9	94	AUG. 14+	-32	JAN. 22	7570	12.01	1.24	APR. 20-21	53.3	13.8	JAN. 20	62	46	40	55	6.8	WSW#	65	SW	DEC. 3	75	5.1	119	137	109	66	14	29	1	16	46	173	29
SHERIDAN	58.0	31.9	45.0	99	AUG. 4	-24	JAN. 19	7430	13.78	1.85	JUN. 15-16	35.6	5.2	JAN. 7-8	76	54	51	71	6.8	NW	63	NW	JAN. 6	64	5.9	104	110	151	101	13	41	2	13	44	172	28

Data from airport unless otherwise specified. U indicates Urban, R indicates Rural, sites.
* Values entered in column "Fastest Mile" is the highest observed 1-minute wind speed. This station is not equipped with a recording anemometer from which Fastest Mile data can be evaluated.
+ And also on an earlier date or dates.
A Maximum hourly average.
B Number of days maximum 70°F. or above for Alaskan Stations.
AP Over certain elements indicates data from airport.

Y Peak gust.
# Wind direction to 8 compass points only.
F Computed as of 8:00 a.m. local time.
K Computed as of noon local time.
V Sun below horizon November 19 - January 23.
X Sun below horizon November 24 - January 17.
// Station moved to airport January 19.

ANNUAL CLIMATOLOGICAL DATA
METRIC UNITS

YEAR 1962

State and Station	Temperature							Heating degree days	Precipitation						Relative humidity				Wind					Possible sunshine	Average sky cover sunrise to sunset	Number of days										
	Averages			Extremes								Snow, Sleet									Fastest mile (1.6 kilometers)					Sunrise to sunset							Max. temp.		Min. temp.	
	Daily maximum	Daily minimum	Annual	Highest	Date	Lowest	Date		Total	Greatest in 24 hours	Date (s)	Total	Greatest in 24 hours	Date (s)	1:00 a.m E.S.T	7:00 a.m E.S.T	1:00 p.m E.S.T	7:00 p.m E.S.T	Average speed	Prevailing direction	Speed	Direction	Date			Clear, 0–0.3	Partly cloudy, 0.4–0.7	Cloudy, 0.8–1.0	Precipitation .25mm or more	Snow, Sleet 25.4mm. or more	Thunderstorms	Heavy fog	32.2 °C and above	0 °C and below	0 °C and below	–17.8 °C. and below
ALABAMA	°C.	°C	°C.	°C.		°C		Base 18.3 °C.	Mm.	Mm.		Mm.	Mm.		%	%	%	%	M.p.s.		M.p.s.			%	Tenths											
BIRMINGHAM	24.1	11.5	17.8	38.9	JUL. 23	-17.2	DEC. 13+	1518	1223	74	NOV. 8-9	97	97	JAN. 9-10	76	80	52	58	3.8	ENE	19.2	N	AUG. 5	63	5.7	120	90	155	109	1	52	10	104	5	41	0
HUNTSVILLE	22.6	10.1	16.4	38.3	JUL. 23+	-18.9	JAN. 11	1863	1335	67	FEB. 22-23	208	124	JAN. 9-10	77	82	53	58	3.5	SE	17.4	ESE	DEC. 24		5.8	116	94	155	115	2	57	10	94	5	65	3
MOBILE	25.6	14.4	20.0	37.2	MAY 20	-13.9	JAN. 11	961	1290	111	MAR. 30-31	T	T	JAN. 10+	84	86	56	69	3.7	N	17.9	W	MAR. 31		5.7	100	125	140	127	0	81	40	105	4	21	0
MONTGOMERY	25.1	12.5	18.8	37.2	SEP. 5+	-15.0	DEC. 13	1276	1206	108	APR. 11-12	25	25	JAN. 9	80	84	54	61	3.4	ENE	15.2	N	JUL. 7+	62	5.3	124	114	127	96	1	63	17	113	5	34	0
ALASKA																																				
ANCHORAGE	5.9	-2.1	1.9	23.9	JUL. 6	-30.0	JAN. 27	5935	370	47	JUN. 12-13	988	170	MAR. 17-18	80	76	65	74	2.4	N	16.1*	N	DEC. 9	43	7.3	66	60	239	99	14	0	32	B 16	112	202	36
ANNETTE	11.1	5.2	8.2	27.2	JUL. 5	-9.4	MAR. 3	3671	2948	118	JAN. 29-30	607	109	DEC. 29-30	81	77	70	79	4.1	SSE	17.9*	SE	NOV. 6		8.1	36	61	267	227	6	4	18	29	9	68	0
BARROW	-7.4	-14.1	-10.7	17.8	AUG. 14+	-42.8	MAR. 26	10573	180	14	JAN. 17-18	1125	137	JAN. 17-18	80	78	77	78	5.7	ENE	21.9*	E	JAN. 12			41	47	211	125	11	0	68	0	255	315	159
BARTER ISLAND	-6.7	-13.6	-10.1	18.9	JUL. 19	-46.1	JAN. 27	10356	249	57	JAN. 18	1748	376	JAN. 18	77	76	76	76	6.3	E	27.7*	W	FEB. 26			57	57	196	91	16	0	73	0	244	309	157
BETHEL	1.9	-5.7	-1.8	28.3	JUN. 19	-34.4	JAN. 29	7336	318	26	AUG. 25-26	1207	99	JAN. 21	84	82	73	77	5.9	NNE	23.2*	S	FEB. 19		7.4	65	61	239	133	16	1	95	21	142	240	75
COLD BAY	5.6	1.1	3.4	20.6	AUG. 26	-20.6	JAN. 29	5409	670	36	MAY 16-17	699	84	DEC. 21-22	87	87	81	87	7.6	SSE	26.8*	SSE	JAN. 13		8.8	16	42	307	190	8	0	27	0	56	157	2
CORDOVA	7.9	-.7	3.7	20.0	JUL. 28+	-21.7	DEC. 7	5301	1968	65	SEP. 19-20	3129	457	MAY 24-25	88	83	75	85	2.6	ESE	13.9*	ESE	OCT. 28+		8.0	45	58	262	199	22	3	11	0	41	183	13
FAIRBANKS	2.9	-7.7	-2.4	30.6	AUG. 1	-46.7	JAN. 27	7553	422	41	JUL. 21-22	1786	208	FEB. 8-9	80	75	62	71	2.5	N	11.2*	SW	AUG. 30+		7.0	78	73	214	105	23	4	21	52	151	237	104
JUNEAU	8.4	1.0	4.7	25.6	JUL. 29+	-18.9	JAN. 26	4907	1570	60	DEC. 8-9	3205	650	DEC. 8-9	86	81	71	81	3.4	ESE	17.9*	ESE	APR. 12	30	8.3	47	43	275	207	29	1	19	14	38	147	3
KING SALMON	5.3	-3.7	.8	27.8	JUL. 1+	-33.3	JAN. 3	6351	438	17	FEB. 19-20	1394	236	FEB. 19-20	85	81	68	78	4.7	N	21.5*	E	JAN. 4+		7.3	68	62	235	138	22	2	36	24	95	202	49
KOTZEBUE	-1.8	-8.7	-5.2	23.9	AUG. 12	-40.0	JAN. 27	8559	236	21	SEP. 1-2	1664	112	MAR. 28-29	82	80	78	80	4.9	ESE	23.2*	WNW	SEP. 3		7.2	80	52	233	125	19	1	17	3	203	254	102
MC GRATH	2.0	-8.5	-3.2	31.1	JUL. 20	-46.7	JAN. 26	7853	220	20	SEP. 1-2	2088	226	DEC. 24-25	77	74	61	6[illegible]	2.2	N	15.6*	S	FEB. 19		7.3	64	67	234	118	23	6	28	38	159	239	95
NOME	.3	-6.8	-3.3	22.2	JUL. 18	-34.4	JAN. 27+	7838	1[illegible]8	21	SEP. 1	1146	201	DEC. 22-23	82	81	77	80	5.5	E	20.6*	NW	JAN. 22+	29	7.1	77	64	223	127	10	0	36	3	182	253	84
ST. PAUL ISLAND	3.7	-1.3	1.2	16.1	JUL. 26+	-20.6	JAN. 31+	6207	579	33	AUG. 24-25	1425	185	DEC. 10-11	90	90	86	89	7.8	NW	25.0	SE	JAN. 10		8.6	29	39	297	193	16	0	95	0	67	227	6
SHEMYA	5.8	2.4	4.1	12.2	AUG. 20+	-6.1	FEB. 15	5146	970	134	OCT. 11-12	1501	91	NOV. 16-17	89	91	87	87	8.3	WSW	26.8*	WSW	27		8.9	10	53	302	221	24	0	103	0	15	121	0
YAKUTAT	7.8	.4	4.2	20.6	AUG. 15+	-19.4	MAR. 23-	5108	3597	130	JAN. 8-9	4158	427	DEC. 8-9	92	86	78	89	3.2	ENE	20.6*	ESE	OCT. 27+		8.2	40	55	270	223	37	3	36	0	42	159	3
ARIZONA																																				
FLAGSTAFF	16.3	-1.3	7.5	31.7	AUG. 12	-26.7	FEB. 28	3933	460	39	JUL. 21-22	2187	422	JAN. 20-21	72	38	37	63	3.2	S	16.5	NNE	JAN. 10		4.2	181	81	103	81	23	55	16	0	16	210	10
PHOENIX	29.8	13.0	21.4	45.0	AUG. 13+	-5.6	JAN. 12	758	99	19	JAN. 21-22	T	T	JAN. 17+	50	31	22	40	2.3	E	21.9Y	SE	JUL. 20	90	3.0	228	78	59	35	0	16	2	162	0	7	0
PRESCOTT	21.8	4.9	13.3	38.3	AUG. 14	-16.7	FEB. 28	2313	267	37	JUL. 21-22	358	86	FEB. 26-27	60	34	29	51	3.6	SSW	25.0	SW	JAN. 20	82	3.6	193	102	70	60	9	33	4	57	1	116	0
TUCSON	27.6	12.6	20.1	41.7	AUG. 11	-6.1	JAN. 12+	906	218	61	SEP. 26	T	T	FEB. 27	52	30	23	42	4.2	SSE	24.1	W	JUL. 29	87	3.6	203	83	79	52	0	41	0	137	0	16	0
WINSLOW	21.3	4.1	12.7	39.4	AUG. 15	-20.0	JAN. 3	2672	166	35	OCT. 17-18	434	130	JAN. 24-25	64	40	33	53	4.1	SW	23.2*	SW	JUL. 17		4.2	183	89	93	52	6	32	18	83	25	121	1
YUMA	32.3	15.6	23.9	47.2	AUG. 11	-2.2	JAN. 12	412	29	12	JAN. 24				48	29	19	38	3.4	SSE	16.1	SE	AUG. 15	92	2.4	260	62	43	11	0	1	0	195	0	2	0
ARKANSAS																																				
FORT SMITH	22.7	10.1	16.4	41.1	AUG. 11+	-19.4	JAN. 12+	1886	907	55	AUG. 31	99	89	JAN. 8-9	81	88	59	59	3.2	ENE	20.1	W	MAY 26	58	5.7	124	97	144	96	1	58	18	93	9	67	3
LITTLE ROCK	22.8	10.6	16.7	41.1	AUG. 7	-20.0	JAN. 12	1781	1191	92	JAN. 22	191	152	JAN. 8-9	80	84	58	62	3.4	SW	17.9	SW	MAR. 11	58	5.6	121	99	145	107	3	51	19	89	6	58	2
TEXARKANA	23.5	12.4	17.9	38.9	AUG. 12	-17.8	JAN. 10	1433	1127	72	JUN. 31-1	193	191	JAN. 9	84	91	65	65	3.7	SW									106	1	62	21	79	3	32	1
CALIFORNIA																																				
BAKERSFIELD	24.6	10.8	17.7	40.6	JUN. 19	-6.1	DEC. 26	1308	144	30	FEB. 10-11	T	T	JAN. 22	69	53	38	57	3.0	NW	16.5*	NNW	APR. 19+		3.5	208	74	83	31	0	4	32	99	0	27	0
BISHOP	23.7	2.9	13.3	39.4	AUG. 13	-16.1	DEC. 26	2256	197	53	FEB. 8-9	56	18	JAN. 20		28	18								3.2	229	66	70	30	0	7	0	95	2	132	0
BLUE CANYON	15.1	6.4	10.8	30.0	AUG. 25+	-13.9	FEB. 27+	2894	1960	201	OCT. 11-12	4884	612	JAN. 19		47			3.5		23.7	SSW	FEB. 9		4.3	188	56	121	79	35	7	71	0	25	78	0
BURBANK	23.4	10.8	17.2	36.1	AUG. 14+		DEC. 28	926	446	143	FEB. 10-11	T	T	FEB. 19+	77	55	47	72	3.1	S	14.3*	NNW	APR. 20		4.0	191	95	79	29	0	3	39	36	0	1	0

See reference notes at end of table.

ANNUAL CLIMATOLOGICAL DATA
METRIC UNITS

YEAR 1962

State and Station	Temperature							Heating degree days	Precipitation						Relative humidity				Wind					Possible sunshine	Average sky cover sunrise to sunset	Number of days										
	Averages			Extremes								Snow, Sleet									Fastest mile (1.6 kilometers)					Sunrise to sunset							Max. temp.		Min. temp.	
	Daily maximum	Daily minimum	Annual	Highest	Date	Lowest	Date		Total	Greatest in 24 hours	Date (s)	Total	Greatest in 24 hours	Date (s)	1:00 a.m E S T	7:00 a.m E S T	1:00 p.m E S T	7:00 p.m E S T	Average speed	Prevailing direction	Speed	Direction	Date			Clear, 0-0 3	Partly cloudy, 0.4-0.7	Cloudy, 0.8-1.0	Precipitation .25mm. or more	Snow, Sleet 25.4mm. or more	Thunderstorms	Heavy fog	32.2 °C and above	0 °C. and below	0 °C. and below	-17.8 °C. and below
CALIFORNIA	°C.	°C.	°C.	°C.		°C.		Base 18.3°C.	Mm.	Mm.		Mm.	Mm.		%	%	%	%	M.p.s.		M.p.s.			%	Tenths											
EUREKA U	13.8	8.2	11.0	21.1	DEC. 14+	- 2.8	FEB. 27	2617	894	74	OCT. 9-10	20	20	JAN. 20					3.0		25.0	SW	OCT. 12	51	7.0	73	87	205	102	0	1	71	0	0	7	0
FRESNO	24.5	9.2	16.9	41.1	JUN. 19	- 5.0	DEC. 27+	1451	244	40	FEB. 10-11	56	38	JAN. 22	77	58	37	63	2.7	WNW	14.8	NW	APR. 19+	83	3.4	214	73	78	37	1	5	65	107	0	31	0
LONG BEACH	21.9	11.1	16.6	35.6	OCT. 30		DEC. 28	907	304	64	FEB. 7-8	T	T	JAN. 22	85	67	60	82	2.9	WNW	14.3*	E	JAN. 10		4.8	147	129	89	27	0	4	65	9	0	1	0
LOS ANGELES	20.1	12.2	16.2	33.3	OCT. 30	2.2	DEC. 27	934	382	106	FEB. 7-8	T	T	JAN. 22+	83	67	69	82	3.0	WSW	21.9Y	W	MAR. 9		4.9	135	137	93	26	0	2	51	1	0	0	0
LOS ANGELES U	22.3	12.4	17.3	34.4	SEP. 23+	3.9	FEB. 28+	804	390	77	FEB. 10-11	T	T	JAN. 22+	79	52	55K	76	2.5	W#	15.6	SE	JAN. 22	74	3.9	196	91	78	25	0	5	42	12	0	0	0
MT SHASTA R	17.2	2.8	10.0	35.6	JUL. 27	- 18.9	JAN. 21	3118	1045	91	OCT. 11-12	2195	399	MAR. 4-5		59	48								4.0	199	74	92	80	21	10	4	24	6	122	2
OAKLAND	18.4	9.4	13.9	35.0	AUG. 27+	- 1.1	JAN. 23	1622	571	138	OCT. 12-13	T	T	JAN. 21	82	67	57	78	3.9	WNW	15.6*	NNE	OCT. 12		4.8	146	115	104	56	0	1	35	3	0	8	0
POINT ARGUELLO	16.4	8.1	12.3	33.3	AUG. 28	- 3.3	DEC. 27	2166	340	47	FEB. 10-11	T	T	JAN. 22+					3.5		18.3*	S	FEB. 9		6.2	105	86	174	75	0	1	162	1	0	13	0
RED BLUFF	24.1	10.2	17.2	42.8	JUL. 26	- 6.1	JAN. 21	1383	536	65	OCT. 11-12	38	38	FEB. 28	65	50	36	57	4.2	SSE	30.4	SE	OCT. 12	82	4.0	201	62	102	55	1	9	26	96	1	24	0
SACRAMENTO U	22.6	9.4	16.0	40.0	JUN. 20	- 3.9	JAN. 22	1416	505	129	OCT. 12-13	AP T	AP T	JAN. 21	AP 86	AP 68	AP 49	AP 77	AP 3.0	AP SW	AP 18.8	AP SW	OCT. 12	AP 79	AP 4.0	AP 194	AP 72	AP 99	41	AP 0	AP 5	AP 64	69	0	17	0
SANDBERG R	17.8	8.3	13.1	35.6	AUG. 14+	- 10.6	FEB. 27	2373	358	124	FEB. 10-11	940	450	JAN. 22		40			5.8	N	27.7*	N	APR. 25		2.7	246	57	62	30	5	0	60	14	9	62	0
SAN DIEGO	20.7	12.7	16.7	31.7	OCT. 30+	4.4	DEC. 31+	788	188	37	JAN. 20-21			.	80	64	65	79	3.1	NW	13.9	S	JAN. 20		4.8	154	123	88	39	0	2	47	0	0	0	0
SAN FRANCISCO	17.7	8.7	13.2	33.3	AUG. 27+	- 1.1	JAN. 21	1833	616	95	OCT. 12-13	38	38	JAN. 21	87	73	64	83	4.7	WNW	22.4	S	OCT. 13+		4.5	156	114	95	51	1	1	30	2	0	8	0
SAN FRANCISCO U	16.5	10.2	13.4	31.1	JUN. 19		JAN. 21	1784	508	79	OCT. 12-13	T	T	JAN. 21		81F	70K		3.9	W#	17.0	SE	OCT. 12+	66					55	0	1		0	0	1	0
SANTA MARIA	19.2	7.3	13.3	39.4	AUG. 28	- 4.4	DEC. 26	1814	352	57	FEB. 9-10	T	T	FEB. 25+	90	65	64	87	3.0	WNW	17.9*	SE	MAR. 5		4.1	181	117	67	41	0	1	108	1	0	17	0
COLORADO																																				
ALAMOSA	16.0	- 4.3	5.8	31.1	AUG. 10+	- 31.1	JAN. 11	4532	120	27	MAR. 29-30	785	356	MAR. 29-30	78	42	37								4.2	165	132	68	63	7	40	15	0	26	234	35
COLORADO SPRINGS	17.2	1.8	9.5	35.6	AUG. 14+	- 28.9	JAN. 10	3406	257	31	JUN. 29-30	754	140	NOV. 16-17	66	37	40	61	4.0	NNE	15.6*	N	SEP. 8+		4.8	134	136	95	74	9	62	17	19	33	152	14
DENVER	18.1	1.5	9.8	37.8	AUG. 14+	- 31.1	JAN. 10+	3418	215	26	JAN. 7-8	1326	315	JAN. 7-8	64	37	37	57	4.0	SSW	21.5	W	NOV. 6+	73	5.1	128	128	109	80	16	33	9	44	28	159	19
GRAND JUNCTION	18.8	4.7	11.8	37.2	AUG. 15+	- 24.4	DEC. 26	2962	153	21	SEP. 20-21	599	107	DEC. 24	54	37	30	45	2.7	ESE	21.5	NW	JUL. 25	77	4.7	155	113	97	56	8	29	7	60	22	124	12
PUEBLO	20.4	2.5	11.4	39.4	AUG. 9	- 31.7	JAN. 11+	2951	213	18	JUL. 23	927	196	MAR. 29-30	70	40	35	58	4.1	ESE	30.4	N	AUG. 15	78	4.4	168	120	77	61	9	46	11	59	21	149	18
CONNECTICUT																																				
BRIDGEPORT	14.3	5.3	9.8	31.1	JUN. 18+	- 18.9	FEB. 11	3326	858	61	JAN. 6-7	691	254	FEB. 14-15	78	78	60	68	5.9	NNW	24.6	NW	APR. 23		6.1	101	109	155	109	8	17	21	0	33	112	3
HARTFORD	14.7	2.6	8.7	34.4	JUL. 8+	- 22.8	DEC. 30	3513	918	72	AUG. 17	1105	224	FEB. 14-15	81	81	55	66	3.6	S	17.9	NW	APR. 9	58	6.5	86	98	181	113	15	23	37	7	44	145	8
NEW HAVEN	14.3	4.7	9.6	32.2	AUG. 8	- 18.9	DEC. 31+	3396	931	72	JAN. 6-7	889	216	FEB. 14-15		77	59		3.7		18.3	NW	DEC. 31	61	6.1	107	96	162	117	14	20	13	1	34	117	3
DELAWARE																																				
WILMINGTON	16.7	6.1	11.4	35.0	MAY 19	- 18.3	FEB. 11	2981	874	50	SEP. 27-28	592	109	MAR. 6	79	79	55	66	4.4	NW	19.7	WNW	DEC. 31		6.1	97	113	155	110	6	27	33	14	25	117	1
DIST OF COLUMBIA																																				
WASH NATL AP	17.9	8.6	13.2	37.2	AUG. 20	- 12.8	JAN. 11	2558	840	43	OCT. 4	729	137	DEC. 25	71	72	52	59	3.6	S	18.8	NW	JUN. 19	59	6.0	104	103	158	110	8	25	14	21	18	83	0
FLORIDA																																				
APALACHICOLA U	24.2	16.3	20.3	35.6	AUG. 6+	- 10.6	DEC. 13	762	920	82	SEP. 8-9	T	T	JAN. 11					2.9		17.0	NW	AUG. 7		5.0	137	120	109	94	0	60	43	37	0	8	0
DAYTONA BEACH	26.3	15.6	20.9	36.1	MAY 22	- 6.1	DEC. 13	574	1183	86	JUL. 7-8	T	T	DEC. 12	84	85	60	74	3.8	NW	16.1	W	JAN. 6		6.1	83	135	147	106	0	99	49	45	0	12	0
FORT MYERS	29.1	17.9	23.5	36.7	MAY 26	- 3.3	DEC. 13	202	1477	237	SEP. 20-21				86	86	55	72	4.1		17.0	NE	OCT. 3		5.3	117	153	95	105	0	98	33	136	0	3	0
JACKSONVILLF	26.5	14.9	20.7	37.2	JUL. 12+	- 11.1	DEC. 13	774	1115	106	JUN. 14-15	T	T	DEC. 12	84	87	52	69	3.5	NW	24.1	E	JUN. 14	59	5.6	98	143	124	126	0	68	44	103	0	11	0
KEY WEST	28.0	22.4	25.2	33.9	OCT. 5+	7.8	DEC. 13	49	773	64	DEC. 1				77	79	64	72	4.8	ESE	16.1	NW	MAR. 6	72	5.6	94	166	105	109	0	68	1	74	0	0	0
LAKELAND U	27.5	16.9	22.2	36.1	MAY 27	- 6.7	DEC. 13	374	967	73	JUN. 1								3.1					64	5.6	96	148	121	111	0	118	28	107	0	4	0
MIAMI BEACH	27.7	21.6	24.7	35.0	JUL. 16	2.2	DEC. 13	74	923	77	SEP. 23-24								4.0		17.0	W	SEP. 20	59	5.4	102	163	100	116	0			40	0	0	0

See reference notes at end of table

ANNUAL CLIMATOLOGICAL DATA
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YEAR 1962

State and Station	Temperature							Heating degree days	Precipitation						Relative humidity				Wind					Possible sunshine	Average sky cover sunrise to sunset	Number of days										
	Averages			Extremes								Snow, Sleet									Fastest mile (1.6 kilometers)					Sunrise to sunset							Max. temp.		Min. temp.	
	Daily maximum	Daily minimum	Annual	Highest	Date	Lowest	Date		Total	Greatest in 24 hours	Date (s)	Total	Greatest in 24 hours	Date (s)	1:00 a.m. E S T	7:00 a.m. E S T	1:00 p.m. E S T	7:00 p.m. E S T	Average speed	Prevailing direction	Speed	Direction	Date			Clear, 0–0.3	Partly cloudy, 0.4–0.7	Cloudy, 0.8–1.0	Precipitation .25mm. or more	Snow, Sleet 25.4mm. or more	Thunderstorms	Heavy fog	32.2 °C. and above	0 °C. and below	0 °C. and below	–17.8 °C. and below
	°C.	°C.	°C.	°C.		°C.		Base 18.3 °C.	Mm.	Mm.		Mm.	Mm.		%	%	%	%	M.p.s.		M.p.s.			%	Tenths											
FLORIDA																																				
MIAMI	28.1	19.4	23.7	33.9	AUG. 7+	1.7	DEC. 14+	135	1074	91	NOV. 9				82	85	59	71	3.8	ESE	17.9	SSE	SEP. 21+		6.0	70	168	127	110	0	94	10	47	0	0	0
ORLANDO	28.3	16.4	22.4	37.8	MAY 27	- 6.7	DEC. 13	395	1279	103	SEP. 18-19				86	88	53	69	3.8	S	15.6	NNE	MAY 11		5.7	91	158	116	107	0	79	37	127	0	5	0
PENSACOLA U	24.3	15.7	20.0	36.1	AUG. 10+	- 12.2	DEC. 13	878	1085	77	NOV. 8	T	T	JAN. 10					4.0		14.8	W	MAR. 5	68					118	0	53	0	41	3	11	0
TALLAHASSEE	26.2	13.3	19.8	37.2	SEP. 4	- 12.2	DEC. 13	931	1346	182	MAR. 31-1	T	T	DEC. 12	89	91	56	70	4.0	N	25.9	NNE	AUG. 8		5.6	101	139	122	119	0	90	58	110	0	26	0
TAMPA	27.1	16.8	21.9	35.0	AUG. 30+	- 7.8	DEC. 13	386	1057	110	SEP. 19-20				85	87	58	71	4.7	N	21.5	NE	JUN. 28	65	5.7	98	137	130	97	0	98	29	78	0	4	0
WEST PALM BEACH	28.6	18.6	23.6	35.6	AUG. 4+	- 1.1	DEC. 13	164	1233	91	MAR. 25-26				83	86	58	72	4.2	SE	18.8	NNW	MAR. 25		6.1	76	149	140	119	0	92	11	93	0	1	0
GEORGIA																																				
ATHENS	22.4	10.1	16.3	37.2	JUL. 23	- 16.7	DEC. 13	1756	1286	69	FEB. 21-22	51	25	JAN. 9	81	87	56	65	3.5	WNW	16.5	NNW	AUG. 13		5.7	112	113	140	117	1	55	38	69	3	56	0
ATLANTA	21.4	10.0	15.7	34.4	JUL. 23	- 17.2	DEC. 13	1840	1214	89	APR. 11-12	89	89	JAN. 9	79	84	56	62	3.5	WNW	13.0	W	MAY 9+		5.3	132	99	134	116	1	56	32	36	5	53	0
AUGUSTA	24.2	10.9	17.6	38.9	JUL. 24	- 14.4	DEC. 13	1472	1150	91	FEB. 21-22	T	T	DEC. 6+	84	88	55	67	2.8	SE	17.4	NW	APR. 11		6.0	102	109	154	111	0	69	37	86	2	47	0
COLUMBUS	24.4	11.5	18.0	36.7	JUL. 24+	- 15.6	DEC. 13	1395	1255	76	APR. 11-12	T	T	MAR. 6+		86	51	62	3.6		23.2	N	JUL. 18		5.4	130	104	131	114	0	64	21	100	2	45	0
MACON	24.8	11.9	18.4	38.3	JUL. 23	- 15.0	DEC. 13	1318	1226	113	JAN. 5-6	T	T	DEC. 6+	79	86	49	58	3.5	NW	17.0	E	FEB. 19+	64	5.5	125	92	148	112	0	75	26	112	1	32	0
ROME	22.3	8.4	15.4	36.1	SEP. 4+	- 17.8	DEC. 13	1999	1307	85	APR. 11-12	84	61	JAN. 9-10		84	50								5.5	123	112	130	121	1	65	24	81	4	84	1
SAVANNAH	24.6	12.7	18.7	36.7	MAY 27+	- 12.8	DEC. 13	1171	1374	69	MAR. 2-3	T	T	DEC. 12+	86	89	57	72	3.8	NNE	20.1	W	SEP. 6	67	5.9	100	110	155	121	0	76	37	72	0	29	0
THOMASVILLE U	26.1	14.0	20.1	36.7	JUL. 24+	- 13.3	DEC. 13	919	1275	146	APR. 1	T	T	JAN. 12+												125	94	115	110	0	82	18	116	1	15	0
HAWAII																																				
HILO	27.2	18.3	22.8	32.2	OCT. 18	11.7	FEB. 21		1815	90	SEP. 16-17				86	79	63	82	3.4	WSW	15.6*	S	JAN. 6	46	7.0	41	135	189	250	0	4	0	1	0	0	0
HONOLULU U	26.6	21.8	24.2	29.4	OCT. 15+	14.4	FEB. 21		393	50	FEB. 16-17				AP 75	AP 72	AP 58	AP 70	AP 5.6	AP ENE	AP 19.2	S	JAN. 6	AP 71	AP 5.9	AP 78	AP 175	AP 112	105	0	AP 5	AP 0	0	0	0	0
KAHULUI	28.7	19.1	23.9	32.8	SEP. 10	11.7	FEB. 22		321	54	JAN. 28-29				79	74	58	73	8.6	NE	24.1*	SSW	JAN. 6		4.7	149	133	83	76	0	5	0	1	0	0	0
LIHUE	27.8	20.3	24.1	30.6	OCT. 30+	11.1	FEB. 22		1442	174	JAN. 6				79	76	64	75	5.4	NE	18.8	S	APR. 25+	63	6.3	59	175	131	192	0	12	0	0	0	0	0
IDAHO																																				
BOISE	16.6	3.7	10.2	38.9	JUN. 25	- 24.4	JAN. 23+	3273	271	32	MAY 23-24	376	140	JAN. 19-20	70	55	44	62	3.6	SE	17.0	SW	JUN. 18	73	5.8	119	92	154	88	6	13	38	31	37	121	5
IDAHO FALLS 42NW R	13.7	- 3.4	5.2	35.6	AUG. 15	- 41.1	JAN. 23	4819	257	31	MAY 14-15																		65				14	63	210	48
IDAHO FALLS 46W R	13.9	- 2.4	5.8	35.6	AUG. 15	- 40.0	JAN. 21	4619	259	30	SEP. 20-21	544	152	JAN. 19-20					3.1		17.9A	WSW	AUG. 21						66	9	11	15	14	59	200	39
LEWISTON	16.9	5.1	11.0	38.3	AUG. 15+	- 19.4	JAN. 21	2942	334	21	MAY 23-24+	168	51	JAN. 12-13	75	60	49								6.8	87	77	201	95	2	11	32	31	16	77	2
POCATELLO	15.3	.9	8.1	36.1	AUG. 15	- 34.4	JAN. 22	3871	255	23	AUG. 5	1227	229	JAN. 19-20	72	52	43	61	4.4	SSW	21.0	S	JAN. 20	62	6.0	105	96	164	80	17	26	26	24	44	158	9
ILLINOIS																																				
CAIRO U	19.7	10.2	14.9	36.7	AUG. 20+	- 18.9	JAN. 10	2274	1344	82	MAY 27	147	51	DEC. 10-11		82	59		3.6	S#	18.8	SW	MAY 29+	62	6.0	97	115	153	125	2	67	6	57	15	64	2
CHICAGO O HARE	14.3	3.6	8.9	34.4	AUG. 24+	- 26.1	JAN. 10	3786	553	73	JUL. 1-2	955	229	JAN. 6-7	78	81	60	65	4.8	SSW	23.2*	NNW	MAY 12		6.5	82	100	183	111	12	27	20	18	61	141	22
CHICAGO MIDWAY	14.7	5.4	10.1	35.6	AUG. 20	- 24.4	JAN. 10	3555	564	46	JUL. 22	1161	178	JAN. 6-7	73	76	56	61	4.8	SW	20.1	N	APR. 9	58	6.5	78	106	181	126	12	28	14	26	56	119	15
MOLINE	14.9	3.6	9.3	35.6	AUG. 23	- 28.3	DEC. 26	3781	860	89	JUL. 13-14	955	173	FEB. 17-18	78	82	60	63	4.2	WNW	20.1	NW	NOV. 23	58	6.2	95	105	165	108	14	46	26	22	56	144	21
PEORIA	15.2	4.1	9.7	35.6	AUG. 23	- 25.6	JAN. 11+	3644	630	42	OCT. 19-20	589	130	JAN. 6	78	82	61	63	4.7	S	17.9	W	APR. 30	60	6.0	105	97	163	96	6	42	20	16	57	139	17
ROCKFORD	13.7	3.1	8.4	33.9	AUG. 23	- 26.7	JAN. 11	3967	704	59	JUL. 2	1115	196	JAN. 6-7	81	85	60	65	4.8	WNW	17.0*	WSW	APR. 24		6.2	95	104	166	115	14	40	23	8	63	154	24
SPRINGFIELD	16.9	5.6	11.2	36.7	AUG. 20	- 23.9	JAN. 10	3239	778	78	OCT. 1-2	759	157	JAN. 6	76	81	59	62	4.8	SSW	32.6	SW	JUL. 13	62	5.9	115	98	152	116	10	45	24	32	42	128	11
INDIANA																																				
EVANSVILLE	19.0	7.3	13.2	37.8	AUG. 20	- 23.9	JAN. 10	2687	1039	64	SEP. 3	163	46	FEB. 8	79	82	61	65	3.1	NW	19.2	SW	APR. 30	65	6.2	96	103	166	123	3	48	10	47	24	101	6

See reference notes at end of table.

ANNUAL CLIMATOLOGICAL DATA
METRIC UNITS

State and Station	Temperature							Heating degree days	Precipitation						Relative humidity				Wind					Possible sunshine	Average sky cover sunrise to sunset	Number of days										
	Averages			Extremes								Snow, Sleet									Fastest mile (1.6 kilometers)					Sunrise to sunset							Max. temp.		Min. temp.	
	Daily maximum	Daily minimum	Annual	Highest	Date	Lowest	Date		Total	Greatest in 24 hours	Date (s)	Total	Greatest in 24 hours	Date (s)	1:00 a.m. E.S.T.	7:00 a.m. E.S.T.	1:00 p.m. E.S.T.	7:00 p.m. E.S.T.	Average speed	Prevailing direction	Speed	Direction	Date			Clear, 0-0.3	Partly cloudy, 0.4-0.7	Cloudy, 0.8-1.0	Precipitation .25mm. or more	Snow, Sleet 25.4mm. or more	Thunderstorms	Heavy fog	32.2 °C and above	0 °C. and below	0 °C. and below	-17.8 °C. and below
INDIANA	°C.	°C.	°C.	°C.		°C		Base 18.3 °C.	Mm.	Mm.		Mm.	Mm.		%	%	%	%	M.p.s.		M.p.s.			%	Tenths											
FORT WAYNE	15.2	4.5	9.9	38.3	AUG. 20	- 22.8	JAN. 10	3541	620	36	MAY 26	719	147	FEB. 23-24	78	82	64	61	4.7	W	28.2	W	APR. 30	59	6.5	74	117	174	116	10	32	17	18	51	135	9
INDIANAPOLIS	16.1	5.6	10.8	36.1	AUG. 20	- 24.4	JAN. 10	3266	1048	86	JUL. 13-14	719	147	FEB. 23	79	85	66	63	3.6	SSW	33.5	SW	OCT. 7	61	6.5	87	105	173	110	11	36	17	13	39	125	8
SOUTH BEND	14.1	3.9	9.0	35.0	AUG. 24	- 24.4	JAN. 10	3752	877	84	JUL. 2-3	2555	267	DEC. 9	81	85	62	67	4.8	SSW	24.6*	W	APR. 30		6.7	76	95	194	133	34	31	32	12	58	146	13
IOWA																																				
BURLINGTON	15.7	4.5	10.1	35.6	AUG. 23	- 26.1	DEC. 26	3570	758	65	OCT. 19-20	953	191	FEB. 20-21	79	83	59	63	4.7	WNW	25.0	W	SEP. 13	66	6.0	109	98	158	115	10	48	23	28	52	144	18
DES MOINES	14.5	4.2	9.4	35.6	AUG. 23+	- 30.0	MAR. 1	3806	687	66	JUN. 10	1105	203	MAR. 8	78	83	66	65	3.6	NW	25.0	SW	JUN. 18	57	6.3	90	101	174	105	12	48	25	13	70	145	24
DUBUQUE	12.4	2.4	7.4	32.8	AUG. 23	- 30.6	DEC. 26	4222	1086	117	MAY 28-29	1529	302	FEB. 17-18		81	62	66							6.5	91	89	185	111	19	41	28	1	74	160	29
SIOUX CITY	14.5	3.2	8.8	34.4	AUG. 27	- 32.2	FEB. 28	3909	835	66	JUL. 13-14	1486	226	MAR. 11	82	87	68	65	4.1	NNW	31.3	SW	JUN. 13	59	6.0	105	99	161	118	16	62	19	16	66	148	31
WATERLOO	13.0	2.1	7.6	32.8	AUG. 23+	- 36.7	MAR. 1	4256	810	58	JUL. 1-2	1059	203	FEB. 25-26	85	87	66	72	4.5	NW	23.2*	S	JUN. 22		6.4	91	106	168	104	15	42	20	10	71	161	34
KANSAS																																				
CONCORDIA	17.9	6.0	11.9	40.0	AUG. 18	- 21.7	JAN. 20	3045	694	101	MAY 27-28	455	91	DEC. 24-25										67	5.2	133	114	118	97	6	73	16	10	66	121	9
DODGE CITY	19.6	6.2	12.9	41.1	AUG. 10	- 22.2	JAN. 11	2708	710	102	JUL. 23-24	224	76	JAN. 8	74	82	53	51	5.1	SSE	32.6	NE	SEP. 16	71	5.0	140	112	113	88	3	64	26	54	25	110	10
GOODLAND	19.0	2.4	10.7	38.9	AUG. 10	- 27.2	JAN. 19	3209	496	65	MAY 17-18	579	102	NOV. 15-16	81	47	45	73	5.6	SSE	25.9*	NW	JUN. 23		4.6	155	112	98	71	10	56	30	43	25	163	15
TOPEKA	18.1	6.0	12.1	38.9	AUG. 19	- 23.3	DEC. 26+	3007	819	114	AUG. 23-24	579	178	FEB. 5	80	85	62	62	5.3	S	26.4	SW	MAY 28	62	5.9	109	110	146	92	6	60	16	31	31	121	13
WICHITA	19.8	7.9	13.8	41.7	AUG. 10	- 24.4	JAN. 20	2612	827	62	JUL. 22-23	577	330	JAN. 17-18	76	82	59	57	5.4	S	26.4	SE	JUL. 4	61	5.6	117	108	140	88	6	59	21	61	24	107	3
KENTUCKY																																				
LEXINGTON	17.9	7.3	12.6	36.7	AUG. 20	- 22.8	JAN. 11	2762	1270	82	OCT. 2-3	318	97	JAN. 19	82	85	61	68	3.8	SW	20.6	NW	FEB. 23		6.1	104	106	155	137	3	52	21	19	23	103	5
LOUISVILLE	18.6	7.1	12.8	38.3	AUG. 20	- 21.1	JAN. 10	2715	1014	71	OCT. 1-2	297	43	JAN. 19+	81	86	62	63	3.4	SSE	18.8	N	APR. 30	49	6.2	97	103	165	127	5	48	3	27	22	104	5
LOUISIANA																																				
ALEXANDRIA	25.2	11.8	18.5	40.0	AUG. 8	- 15.0	JAN. 12	1261	1149	55	NOV. 19-20	36	36	JAN. 9	89	92	59	66	2.5	SSW					5.5	115	116	134	100	1	70	41	92	3	38	0
BATON ROUGE	26.1	14.1	20.1	38.9	AUG. 10+	- 12.2	JAN. 11	932	1346	177	APR. 27-28	8	8	JAN. 9	85	90	58	65	3.3	N					5.4	111	139	115	94	0	82	38	107	2	20	0
LAKE CHARLES	25.3	14.7	20.0	39.4	AUG. 8	- 9.4	JAN. 11+	903	1177	358	AUG. 28-29	T	T	JAN. 10+	90	93	62	71	4.6	S	25.9*	NW	JAN. 14		5.8	104	130	131	82	0	66	50	85	2	11	0
NEW ORLEANS	25.7	14.5	20.1	36.1	AUG. 8	- 10.0	JAN. 11	869	991	87	JUN. 19-20	T	T	JAN. 9	89	91	64	72	3.3	NE*	17.0*	W	JUN. 19		5.3	112	134	119	103	0	72	26	88	3	17	0
SHREVEPORT	24.7	13.1	18.9	41.7	AUG. 12	- 16.1	JAN. 12	1234	905	58	JUN. 25	89	89	JAN. 9	80	89	59	60	4.2	S				66	5.2	135	106	124	96	1	52	27	93	3	30	0
MAINE																																				
CARIBOU	8.6	- 2.0	3.3	31.1	JUN. 29+	- 35.6	FEB. 2	5451	924	55	JUL. 9-10	2558	180	OCT. 26-27+	82	82	62	73	4.9	NW	23.2	NNW	DEC. 30+		7.2	54	97	214	153	29	19	27	0	88	191	56
PORTLAND	12.2	.3	6.3	31.1	JUN. 17+	- 24.4	FEB. 2	4405	1178	196	OCT. 6-7	2062	254	MAR. 12-13	84	80	58	73	4.2	N	20.1	E	DEC. 6	57	6.3	98	97	170	132	19	15	52	0	58	173	19
MARYLAND																																				
BALTIMORE	17.8	6.1	11.9	37.8	AUG. 20	- 16.1	JAN. 11	2853	1022	70	OCT. 4	935	330	MAR. 5-6					4.2	W	25.5	NW	JUL. 21	55	5.8	106	112	147	107	10	20	27	29	23	119	0
BALTIMORE U	17.9	9.1	13.6	37.8	AUG. 20	- 12.8	DEC. 31+	2536	967	62	NOV. 9-10																		109				29	24	76	0
FREDERICK	17.0	4.8	10.9	37.8	AUG. 20	- 20.6	FEB. 10	3117	760	34	JAN. 6-7	963	203	MAR. 6															100	9		11	17	32	136	1
MASSACHUSETTS																																				
BLUE HILL OBS R	13.3	3.6	8.4	32.8	MAY 19	- 22.8	DEC. 30	3739	1310	153	OCT. 5-6	1316	340	FEB. 14-15	80	79	55	70	6.6		29.5	WNW	DEC. 30	57					125	13			2	45	137	5
BOSTON	14.3	5.5	9.9	33.3	JUN. 17	- 20.0	DEC. 31	3330	1098	108	OCT. 5-6	980	208	FEB. 19	72	72	55	64	6.4	WNW	21.9	NW	DEC. 30	62	6.1	103	96	166	124	11	19	23	5	33	101	3
NANTUCKET	12.8	5.7	9.2	27.8	AUG. 27	- 19.4	DEC. 31	3354	1289	79	NOV. 21-22	1074	185	JAN. 1-2	84	80	69	80	6.2	WSW	22.4	NW	NOV. 15+	56	6.6	83	97	185	136	16	17	82	0	22	92	2
PITTSFIELD	12.6	.3	6.4	33.3	JUL. 8	- 27.8	FEB. 11	4399	750	43	AUG. 7	1638	274	FEB. 14-15															133	20			2	64	178	22
WORCESTER	12.3	2.7	7.5	33.3	MAY 19	- 25.0	DEC. 30	4044	1257	89	OCT. 5-6	2029	610	FEB. 14-15	76	74	57	67	4.1	W	19.2	ENE	MAR. 6		6.2	90	110	165	129	17	21	78	1	60	147	10

See reference notes at end of table

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State and Station	Temperature							Heating degree days	Precipitation						Relative humidity				Wind					Possible sunshine	Average sky cover sunrise to sunset	Number of days										
	Averages			Extremes								Snow, Sleet									Fastest mile (1.6 kilometers)					Sunrise to sunset							Max. temp.		Min. temp.	
	Daily maximum	Daily minimum	Annual	Highest	Date	Lowest	Date		Total	Greatest in 24 hours	Date (s)	Total	Greatest in 24 hours	Date (s)	1:00 am EST	7:00 am EST	1:00 pm EST	7:00 pm EST	Average speed	Prevailing direction	Speed	Direction	Date			Clear, 0-0.3	Partly cloudy, 0.4-0.7	Cloudy, 0.8-1.0	Precipitation 25mm. or more	Snow, Sleet 25.4mm. or more	Thunderstorms	Heavy fog	32.2°C and above	0°C and below	0°C. and below	-17.8°C. and below
MICHIGAN	°C.	°C.	°C.	°C.		°C		Base 18.3°C.	Mm.	Mm.		Mm.	Mm.		%	%	%	%	M.p.s.		M.p.s.			%	Tenths											
ALPENA	11.4	- 1.2	5.2	34.4	MAY 16	- 32.8	MAR. 4+	4843	609	33	MAY 2-3	2515	292	FEB. 13-14		82	59	68	3.2	W#	13.4	NW	DEC. 29+	60	6.6	75	113	177	139	26	31	22	8	75	183	32
DETROIT	14.0	4.8	9.4	33.9	MAY 18+	- 20.0	JAN. 10	3606	705	43	JUN. 11-12	876	122	FEB. 21	76	80	59	64	4.5	NW	25.5	NW	SEP. 13	53	6.5	81	109	175	135	13	37	12	9	54	132	3
DETROIT M WAYNE CO	14.2	3.0	8.6	33.3	MAY 18+	- 21.1	JAN. 10	3807	736	55	JUL. 11-12	1090	168	DEC. 6	80	83	61	68	3.9	SW					6.6	71	123	171	141	15	39	24	12	56	155	7
DETROIT WILLOW RUN	14.7	3.6	9.2	35.6	MAY 18+	- 20.6	JAN. 10	3702	673	33	SEP. 13	1069	183	DEC. 6-7	81	84	60	67	4.5	SW	20.6*	WNW	SEP. 13		6.6	72	120	173	122	14	34	27	16	54	142	8
ESCANABA U	9.4	.9	5.2	29.4	JUN. 29	- 28.3	MAR. 2+	4782	624	35	JUN. 17-18	1918	287	FEB. 13-14	80	83	68	73	4.4	#	20.6	N	JAN. 3	45	6.6	78	109	178	130	21	30	20	0	84	159	27
FLINT	13.2	1.9	7.6	33.3	JUL. 7	- 24.4	JAN. 19	4124	592	47	JUN. 10-11	1273	175	DEC. 6	84	86	61	69	4.0	SW	14.3*	WSW	DEC. 23		6.7	73	109	183	118	18	33	23	4	66	162	20
GRAND RAPIDS	13.9	3.1	8.5	34.4	AUG. 24	- 21.7	JAN. 19	3882	578	62	SEP. 13	2494	236	JAN. 14-15	77	81	58	61	4.5	E	18.8	W	SEP. 10	49	6.9	70	100	195	128	31	24	14	13	64	155	14
LANSING	13.4	2.2	7.8	34.4	AUG. 24	- 25.0	JAN. 19	4060	539	31	MAY 2	1529	188	DEC. 6-7	79	82	59	64	5.6	SSE	26.8	W	APR. 30	64	6.6	75	113	177	132	18	29	21	3	67	163	21
MARQUETTE U	9.3	1.0	5.2	34.4	MAY 16	- 25.0	MAR. 1+	4854	660	34	SEP. 13	2725	208	MAR. 12		78	67	70	3.5	W#	18.8	SW	APR. 21	52	7.4	43	104	218	153	34	27	37	5	84	161	17
MUSKEGON	13.2	3.4	8.3	33.9	AUG. 24+	- 21.1	FEB. 2+	3869	648	57	SEP. 13	4628	320	DEC. 9-10	81	84	65	69	4.5	WNW	14.8*	NW	DEC. 29		7.0	70	87	208	135	48	30	20	4	66	153	8
SAULT STE MARIE	9.2	- .7	4.3	31.7	JUL. 7	- 30.6	FEB. 1	5114	659	60	MAY 13-14	2794	188	FEB. 13-14	84	85	65	71	4.0	E	17.9*	WNW	DEC. 29	50	7.1	62	91	212	165	41	26	41	0	85	170	39
MINNESOTA																																				
DULUTH	8.0	- 2.4	2.8	30.6	JUN. 28	- 36.1	JAN. 17	5648	751	58	MAY 22-23	1448	157	MAR. 11-12+	77	81	63	64	4.9	ESE	21.5	NE	APR. 27	47	7.3	59	95	211	140	21	38	58	0	104	192	47
INTERNATIONAL FALLS	8.6	- 3.5	2.6	30.0	AUG. 27+	- 40.0	JAN. 17	5740	727	66	JUL. 7	1323	292	APR. 8	79	82	63	65	3.4	NW	20.6*	S	JUN. 28		6.[illegible]	74	92	199	133	13	31	23	0	100	190	66
MINNEAPOLIS	11.1	.4	5.8	35.0	JUN. 28	- 35.6	MAR. 1	4758	732	61	MAY 11-12	1763	236	MAR. 11-12	78	82	65	65	4.8	NW	22.4	NNE	JUL. 21	49	6.7	72	113	180	120	15	40	11	6	81	167	43
ROCHESTER	11.1	.9	6.0	33.3	JUN. 28	- 35.0	MAR. 1	4678	679	83	AUG. 30-31	1412	183	APR. 12	83	85	69	72	5.3	S					6.7	77	102	186	106	17	44	37	1	80	168	38
ST CLOUD	11.0	- .3	5.4	33.3	JUN. 28	- 35.6	MAR. 1	4859	740	81	MAY 22-23	1346	150	FEB. 15	80	84	62	63							6.5	99	80	186	108	18	31	21	1	79	174	51
MISSISSIPPI																																				
JACKSON	24.6	12.2	18.4	37.2	AUG. 18+	- 18.3	JAN. 12	1359	1028	107	APR. 11-12	102	102	JAN. 9-10	81	86	55	60	3.1	S	25.5	NW	APR. 30	67	5.3	126	118	121	99	1	72	20	104	4	34	1
MERIDIAN	25.2	10.8	18.0	38.3	JUL. 23+	- 17.8	JAN. 12	1442	982	90	MAR. 30-31	102	102	JAN. 9-10	89	92	54	64	2.9	S	14.3	WSW	JUN. 25		5.3	123	121	121	91	0	57	26	112	4	51	1
VICKSBURG U	23.5	13.4	18.4	35.6	JUL. 31+	- 16.7	JAN. 11	1299	1080	143	APR. 11-12	76	76	JAN. 9					3.5		18.3	NW	APR. 30	69	5.3	138	104	123	97	1	61	23	71	4	22	0
MISSOURI																																				
COLUMBIA	18.2	6.7	12.4	39.4	AUG. 19	- 22.2	JAN. 10	2928	702	64	SEP. 3	582	163	JAN. 18-19	78	84	59	60	4.5	SSE	17.9	NW	APR. 12	61	5.8	115	101	149	101	7	58	13	43	32	103	10
KANSAS CITY	18.4	7.8	13.2	39.4	AUG. 19	- 20.6	JAN. 20+	2788	940	72	MAY 19-20	1100	312	JAN. 18-19	72	79	59	58	3.5	SSW	22.4	W	JUL. 11	63	6.0	108	105	152	97	9	52	9	43	27	91	8
ST JOSEPH	17.1	5.7	11.4	38.9	AUG. 19	- 23.9	JAN. 20	3237	977	181	MAY 18-19	805	178	FEB. 23					4.7	S	25.9*	W	JUN. 22		5.4	123	117	125	101	9	62	22	36	39	128	16
ST LOUIS	18.0	7.1	12.6	40.6	AUG. 19	- 22.2	JAN. 10	2836	879	51	JUL. 3-4	462	130	JAN. 6	74	80	58	59	3.9	S	17.0	SE	AUG. 31+	48	6.1	97	108	160	112	7	45	7	26	30	104	4
ST LOUIS RFC	18.4	8.9	13.7	40.6	AUG. 19	- 21.7	JAN. 10			97	JUN. 11		132	JAN. 5-6															104	5			35	26	81	4
SPRINGFIELD	19.2	6.8	13.1	38.3	AUG. 20+	- 22.2	JAN. 20+	2680	795	120	SEP. 14-15	277	124	JAN. 18-19	82	86	60	64	4.5	SSE	21.0	NW	JUN. 18	63	5.9	113	95	157	112	4	65	23	39	22	105	7
MONTANA																																				
BILLINGS	14.8	2.3	8.6	37.2	JUN. 26	- 31.7	JAN. 21	3742	361	33	MAY 12-13	1580	246	JAN. 7-8	67	52	45	60	5.0	WSW	21.0	W	JUN. 3	68	6.1	90	122	153	108	18	36	22	17	47	122	27
GLASGOW	12.1	- .1	6.0	34.4	AUG. 8	- 38.3	FEB. 28	4599	451	101	JUL. 13-14	424	56	MAR. 10-11	79	59	54	71							6.6	76	102	187	100	4	30	14	7	67	161	44
GREAT FALLS	13.5	.7	7.1	34.4	AUG. 12+	- 31.7	JAN. 21+	4156	405	46	MAY 20-21	1003	175	JAN. 7-8	68	50	45	61	5.1	SW	27.3	SW	NOV. 20	59	6.8	64	106	195	101	16	29	16	7	47	128	32
HAVRE	13.6	- 1.0	6.3	35.6	AUG. 17+	- 35.6	FEB. 28+	4473	294	42	JUN. 12	292	74	FEB. 17-18	74	52			3.9		31.3	SW	NOV. 20		6.5	74	124	167	90	3	28	9	12	61	164	39
HELENA	13.4	- .1	6.7	35.6	AUG. 12	- 35.6	JAN. 21	4295	358	35	MAY 12-13	927	221	APR. 7	71	54	45	62	3.5	WNW	25.0	SW	NOV. 19	64	6.6	70	114	181	99	9	37	12	3	42	155	33
KALISPELL	12.8	- .7	6.1	36.7	AUG. 16	- 32.2	JAN. 21	4467	292	14	OCT. 11-12	930	142	JAN. 7		61			2.7						7.2	64	83	218	123	12	16	32	11	42	178	14
MILES CITY	14.4	1.4	7.9	38.3	JUN. 26	- 32.8	FEB. 28	4069	483	57	JUN. 10	442	76	DEC. 26	78	57	51	70	4.2	NW	25.9*	W	JUN. 4		5.9	107	117	141	89	10	38	10	24	53	152	34
MISSOULA	12.6	- .7	5.9	35.6	AUG. 15	- 30.6	JAN. 22	4513	305	22	JAN. 6-7	716	117	FEB. 18	83	65	54	73	2.8	NW	21.9	SW	AUG. 16	60	7.1	63	91	210	110	7	28	41	10	49	193	16

See reference notes at end of table.

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State and Station	Temperature							Heating degree days	Precipitation						Relative humidity				Wind					Possible sunshine	Average sky cover sunrise to sunset	Number of days										
	Averages			Extremes								Snow, Sleet									Fastest mile (1.6 kilometers)					Sunrise to sunset							Max. temp.		Min. temp.	
	Daily maximum	Daily minimum	Annual	Highest	Date	Lowest	Date		Total	Greatest in 24 hours	Date (s)	Total	Greatest in 24 hours	Date (s)	1:00 a.m E.S.T	7:00 a.m E.S.T	1:00 p.m E.S.T	7:00 p.m E.S.T	Average speed	Prevailing direction	Speed	Direction	Date			Clear, 0-0.3	Partly cloudy, 0.4-0.7	Cloudy, 0.8-1.0	Precipitation 25mm or more	Snow, Sleet 25.4mm. or more	Thunderstorms	Heavy fog	32.2 °C and above	0 °C and below	0 °C. and below	-17.8 °C. and below
NEBRASKA	°C.	°C.	°C.	°C.		°C.		Base 18.3 °C.	Mm.	Mm.		Mm.	Mm.		%	%	%	%	M.p.s.		M.p.s.			%	Tenths											
GRAND ISLAND	15.7	2.8	9.3	36.1	AUG. 19	- 27.2	FEB. 28	3718	615	41	JUL. 13-14	688	135	FEB. 20-21	79	84	59	60	4.9	S					5.6	128	90	147	102	6	55	23	24	53	153	23
LINCOLN U	16.3	5.3	10.8	37.8	AUG. 19	- 24.4	FEB. 28+	3362	712	58	AUG. 30-31	384	74	FEB. 20-21					4.6	S#	21.9	SW	AUG. 2+	64	5.9	107	104	154	114	3	57	8	28	49	128	17
NORFOLK	14.8	2.6	8.7	36.7	AUG. 27+	- 32.2	FEB. 28+	3925	575	33	JUN. 16-17	988	193	FEB. 20-21		80	56	58							5.8	119	90	156	106	11	62	16	20	64	156	30
NORTH PLATTE	17.2	1.6	9.4	37.2	AUG. 26	- 30.0	FEB. 28	3594	629	75	MAY 28-29	688	122	MAR. 10-11	73	79	50	47	5.0	SSE	25.5	SE	MAY 15	66	5.5	114	118	133	80	10	53	25	21	40	169	24
OMAHA	15.9	4.9	10.4	35.0	JUL. 19	- 26.1	JAN. 20	3484	780	67	AUG. 30-31	937	241	FEB. 20-21	78	84	60	59	5.0	SSE	25.0	NW	MAY 7	62	5.9	95	125	145	125	10	52	16	26	56	136	22
OMAHA N OMAHA AP	14.8	4.1	9.4	34.4	JUL. 7	- 26.1	FEB. 28			80	AUG. 30-31		221	FEB. 20-21											6.1	86	124	155	120	9	54	13	13	63	139	24
SCOTTSBLUFF	17.3	1.3	9.3	37.2	AUG. 27	- 33.3	FEB. 28	3547	455	29	MAY 31-1	574	112	DEC. 23-24	77	49	45	68	5.3	NW	20.6*	NW	DEC. 22+		5.6	124	97	144	88	10	53	11	25	32	166	22
VALENTINE	16.0	.4	8.2	40.0	AUG. 27	- 32.8	FEB. 28	3960	630	72	MAY 27-28	681	208	FEB. 16-17	82	68	53	68	4.8	N#	32.2	S	AUG. 10	66	5.4	127	110	128	83	7	51	10	29	50	172	40
NEVADA																																				
ELKO	16.6	- 1.9	7.4	35.6	AUG. 15+	- 31.1	JAN. 23	4031	209	31	MAY 14-15	930	147	MAR. 2-3+	63	48	35	51	3.0	SW	14.3*	SSW	OCT. 13+		5.0	140	94	131	82	12	21	12	26	35	200	22
ELY	16.7	- 2.1	7.3	35.0	AUG. 14	- 30.6	JAN. 23	4057	187	23	OCT. 4-5	919	312	JAN. 20-21	61	40	34	53	4.1	S	21.0	S	MAY 19	79	4.8	158	91	116	61	8	24	1	11	21	209	20
LAS VEGAS	26.8	11.7	19.3	44.4	AUG. 13	- 8.3	JAN. 12+	1312	37	11	OCT. 18	T	T	MAR. 9+	36	24	18	29	4.4	SW	19.7*	WSW	APR. 19	88	3.1	226	74	65	16	0	7	0	137	0	38	0
RENO	19.4	- 1.3	9.1	35.0	JUL. 27+	- 24.4	FEB. 27	3402	230	39	OCT. 13-14	968	229	MAY 16	76	48	34	60	2.6	SW	22.4	S	OCT. 13	78	4.4	166	97	102	42	12	18	19	37	13	203	6
WINNEMUCCA	18.1	- .6	8.8	37.8	AUG. 14+	- 30.0	JAN. 23	3640	173	15	FEB. 19-20	851	213	FEB. 20	67	46	35	55	3.3	W	22.8	W	OCT. 10	80	5.1	146	86	133	57	9	5	13	47	16	194	19
NEW HAMPSHIRE																																				
CONCORD	13.7	.5	7.1	36.1	MAY 19	- 28.3	FEB. 12	4214	935	108	OCT. 5-6	1384	185	FEB. 24	81	78	50	63	2.6	NW	23.2	NW	DEC. 30	56	6.0	103	103	159	117	13	20	49	4	49	177	27
MT WASHINGTON OBS	.4	- 7.2	- 3.3	17.8	MAY 19	- 40.6	DEC. 30	7859	2286	132	OCT. 6-7	5314	384	MAR. 12-13	83	83	83	82	14.3	W#	59.5Y	W	JAN. 27	40	7.1	71	82	212	184	52	18	311	0	176	250	62
NEW JERSEY																																				
ATLANTIC CITY	16.9	6.6	11.7	35.6	MAY 19	- 15.6	DEC. 31+	2828	1103	71	AUG. 28	526	163	JAN. 1-2	78	79	54	67	4.5	WNW	19.7	E	MAR. 6	55	5.9	99	110	156	110	6	26	44	8	17	106	0
NEWARK	16.2	7.1	11.7	36.7	MAY 19	- 16.7	DEC. 31+	2924	1038	60	MAR. 11-12	602	109	DEC. 21-22	70	71	52	60	4.4	SW	24.6	NW	DEC. 31		5.9	101	122	142	117	10	20	16	14	27	90	0
TRENTON U	16.2	6.8	11.5	35.6	MAY 19	- 17.8	FEB. 11	2956	1118	79	AUG. 27-28	658	102	DEC. 21-22					4.0	S#	21.5	NW	DEC. 31		5.8	106	119	140	113	9	30	0	10	26	98	1
NEW MEXICO																																				
ALBUQUERQUE	21.1	5.8	13.5	36.7	AUG. 9	- 21.1	JAN. 11	2394	137	22	JAN. 25	132	89	JAN. 25	60	39	29	48	3.4	N	21.9	SW	OCT. 16+		3.7	200	94	71	52	2	26	5	67	5	114	2
CLAYTON	20.5	3.8	12.2	36.7	AUG. 9	- 24.4	JAN. 10	2657	265	45	JUN. 31-1	163	48	JAN. 8-9	66	36	36								4.4	157	116	92	57	2	52	1	35	16	131	8
RATON	19.1	.2	9.7	34.4	AUG. 10+	- 31.1	JAN. 11	3274	248	39	SEP. 19-20	526	130	NOV. 16-17		34									4.6	151	118	96	63	8	68	12	19	14	174	10
ROSWELL	24.4	5.3	14.9	38.9	JUN. 22	- 31.1	JAN. 11	2041	300	50	SEP. 24-25	79	30	MAR. 14	72	40	32	57	4.2		22.4	SW	MAY 19+		4.1	184	91	90	57	1	45	14	105	3	126	4
SILVER CITY	22.3	6.2	14.3	36.1	AUG. 8	- 22.8	JAN. 11	2032	346	37	JUL. 4	201	109	JAN. 13-14		35	31								3.7	196	95	74	64	4	55	0	45	2	92	1
NEW YORK																																				
ALBANY	13.6	2.3	8.0	35.0	JUL. 8	- 27.8	FEB. 11	3982	744	31	FEB. 23-24	1461	320	FEB. 14-15	79	78	54	64	3.8	S	18.3	W	APR. 25	59	6.7	75	107	183	118	14	21	19	7	58	151	14
BINGHAMTON	13.6	3.1	8.3	35.6	JUL. 8	- 25.6	FEB. 11	3864	755	73	OCT. 11	1224	152	NOV. 3	81		66	70	4.3	NNW	22.4	SE	FEB. 14	52	7.1	58	103	204	126	16	28	49	11	59	151	7
BUFFALO	13.1	2.8	7.9	33.9	AUG. 31	- 22.2	FEB. 11	3958	725	49	SEP. 27-28	2548	269	FEB. 23-24	76	77	61	68	4.8	WSW	22.4	SW	JAN. 7	54	7.2	57	106	202	168	28	38	20	4	61	161	6
NEW YORK CENT PK	16.4	7.4	11.9	37.2	MAY 19	- 15.6	DEC. 31+	2838	944	59	MAR. 12	378	74	FEB. 9	68	69	50	58	4.1	SW	22.8	NE	MAR. 6	60	5.0	149	110	106	109	6	17	0	18	22	79	0
NEW YORK LAGUARDIA	15.4	7.8	11.6	35.0	MAY 19	- 16.1	DEC. 31+	2909	893	46	MAR. 12	462	94	FEB. 9	70	71	55	62	5.5	NE	24.1	NW	DEC. 31		5.9	101	126	138	111	7	20	13	9	28	80	0
ROCHESTER	13.5	2.9	8.2	34.4	AUG. 31	- 23.3	FEB. 11	3883	743	54	SEP. 27-28	1857	236	FEB. 23-24	81	82	60	69	4.9	WSW	24.1	SW	MAY 24	57	6.7	73	103	189	131	23	35	12	9	56	157	9
SYRACUSE	13.7	3.3	8.5	36.1	JUL. 8	- 24.4	FEB. 2	3841	778	33	AUG. 6-7	2365	163	DEC. 21-22	76	76	55	64	5.1	WNW	24.1	W	OCT. 23	57	6.6	87	97	181	153	27	31	5	6	52	149	10
NORTH CAROLINA																																				
ASHEVILLE U	18.9	7.4	13.2	32.2	AUG. 20+	- 21.1	DEC. 13	2370	1017	41	AUG. 6-7+	663	175	JAN. 1		86	56	66	3.4	NW#	15.6	NW	AUG. 6	59	5.6	122	117	126	137	7	47	64	3	12	89	2

See reference notes at end of table

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State and Station	Temperature							Heating degree days	Precipitation						Relative humidity				Wind					Possible sunshine	Average sky cover sunrise to sunset	Number of days										
	Averages			Extremes								Snow, Sleet									Fastest mile (1.6 kilometers)					Sunrise to sunset							Max. temp.		Min. temp.	
	Daily maximum	Daily minimum	Annual	Highest	Date	Lowest	Date		Total	Greatest in 24 hours	Date (s)	Total	Greatest in 24 hours	Date (s)	1:00 am EST	7:00 am EST	1:00 pm EST	7:00 pm EST	Average speed	Prevailing direction	Speed	Direction	Date			Clear, 0-03	Partly cloudy, 04-07	Cloudy, 08-10	Precipitation .25mm or more	Snow, Sleet 25.4mm. or more	Thunderstorms	Heavy fog	32.2°C and above	0°C and below	0°C and below	-17.8°C. and below
NORTH CAROLINA	°C.	°C	°C.	°C		°C.		Base 18 3°C.	Mm.	Mm.		Mm.	Mm.		%	%	%	%	M.p.s.		M.p.s.			%	Tenths											
CAPE HATTERAS R	20.2	12.1	16.2	33.3	JUL. 15	- 7.2	DEC. 13	1624	2114	206	AUG. 27-28	89	89	JAN. 12	84	81	67	80	5.2	NNE	26.8	NNW	MAR. 7		6.0	106	99	160	128	1	42	17	1	3	31	0
CHARLOTTE	21.2	9.6	15.4	36.7	JUL. 16+	- 16.7	DEC. 13	1982	1214	91	JAN. 5-6	333	152	JAN. 1	75	83	54	60	3.2	NNE	26.4	NW	JUL. 23	61	5.8	110	107	148	112	5	39	42	52	5	70	0
GREENSBORO	19.8	8.1	13.9	35.6	JUL. 15	- 17.8	DEC. 13	2313	1248	93	SEP. 16-17	655	168	JAN. 1	81	85	55	64	3.6	SW	17.0	NNE	APR. 15+	56	6.0	108	100	157	125	6	49	35	37	7	92	1
RALEIGH	20.5	8.6	14.6	35.0	JUL. 16+	- 15.6	DEC. 13	2129	1226	97	NOV. 9-10	409	127	JAN. 10	81	85	55	66	3.6	SSW	30.8	SW	JUL. 21	53	6.0	98	111	156	108	8	47	40	28	4	87	0
WILMINGTON	22.6	11.3	16.9	36.1	JUL. 15	- 12.2	DEC. 13	1543	1465	106	JUN. 13-14	79	25	FEB. 12+	86	87	58	75	4.3	N	26.4	N	NOV. 26	62	6.0	101	109	155	128	2	43	25	35	3	49	0
WINSTON-SALEM	19.7	8.7	14.2	35.6	JUL. 15	- 15.6	DEC. 13+	2239	1304	91	DEC. 3-4	744	208	JAN. 1	73	77	53	59	4.1	NE	24.1	NNE	JUN. 6		5.7	121	100	144	121	6	43	41	36	6	81	0
NORTH DAKOTA																																				
BISMARCK	12.6	- 1.0	5.8	37.2	AUG. 21	- 36.7	FEB. 28	4711	379	40	MAY 17	526	71	FEB. 20-21	75	80	58	56	4.0	WNW	22.4	N	JAN. 6	57	6.6	79	100	186	99	8	33	22	15	72	175	44
DEVILS LAKE U	9.2	- 2.2	3.5	32.8	AUG. 21	- 36.1	FEB. 28	5463	508	60	AUG. 10-11	1171	170	MAR. 28		87	66	66	3.7	S#	18.8	NE	MAY 13	59	6.4	89	106	170	124	17	25	23	4	107	178	62
FARGO	10.7	- .4	5.2	36.1	AUG. 27	- 36.7	FEB. 28	4991	677	53	AUG. 10-11	1003	91	MAR. 3-4	81	83	67	67	4.6	SSE	26.8	NW	APR. 8	52	6.9	72	103	190	107	16	36	18	7	88	168	52
WILLISTON U //	12.1	- 1.4	5.3	35.6	AUG. 21	- 40.6	FEB. 28	4832	464	50	JUL. 6	820	127	OCT. 15		84	61	56	4.4	NW#	25.5	N	OCT. 15	56	6.7	72	111	182	102	10	14	8	13	70	174	52
OHIO																																				
AKRON	14.8	4.3	9.6	33.3	AUG. 30+	- 22.8	JAN. 10	3566	736	43	JUL. 2-3	1681	191	DEC. 5-6+	78	81	57	65	4.2	SW	22.8	WSW	FEB. 14		6.9	65	110	190	145	24	29	28	14	49	136	8
CINCINNATI OBS	17.7	6.9	12.3	37.8	AUG. 20	- 22.2	JAN. 10	2882	1020	52	MAR. 20-21	513	86	FEB. 1	78	80	57	62	2.6	SW#	12.5	W	APR. 13	59	6.6	76	94	195	126	10	46	16	24	30	107	5
CLEVELAND	14.6	4.3	9.4	33.3	AUG. 25+	- 22.2	JAN. 10	3561	802	53	JUL. 2-3	1788	236	DEC. 6-7	78	80	62	67	4.7	S	17.0	N	NOV. 10+	56	7.0	67	95	203	146	20	35	15	13	54	136	7
COLUMBUS	15.7	4.5	10.1	35.6	AUG. 20	- 22.8	JAN. 10	3428	793	37	AUG. 4	968	218	MAR. 5	79	82	59	64	3.5	S	20.1	SW	JAN. 7	54	6.8	68	109	188	130	15	29	19	15	43	143	6
DAYTON	15.9	5.2	10.6	36.7	AUG. 20	- 23.9	JAN. 10	3337	705	40	JUL. 14-15	914	132	MAR. 4-5	78	83	59	64	4.4	SSW	17.4	W	FEB. 13+	52	6.6	73	113	179	122	12	37	23	17	43	131	7
MANSFIELD	14.3	3.9	9.1	33.3	AUG. 20+	- 24.4	JAN. 10	3674	742	49	JUN. 30	1199	137	DEC. 6-7		84	63								6.9	64	111	190	124	15	38	23	4	58	140	10
SANDUSKY U	14.6	5.9	10.3	35.0	JUN. 18	- 22.2	JAN. 10	3408	807	50	JUL. 9-10	1255	279	DEC. 6-7					4.1		29.5	W	MAY 23	64	5.7	109	122	134	130	15	35	11	15	52	120	5
TOLEDO	14.7	3.6	9.2	35.0	AUG. 24+	- 23.3	DEC. 27	3694	670	41	SEP. 13-14	1120	191	MAR. 5	81	84	59	66	4.0	WSW	22.8	NW	APR. 30		6.6	77	109	179	125	11	32	13	20	56	149	12
YOUNGSTOWN	13.9	3.3	8.6	33.3	MAY 18	- 22.8	JAN. 10	3792	712	43	NOV. 9-10	2052	234	MAR. 5-6	78	81	60	66	4.4	SW	15.6	W	APR. 22+		7.0	61	104	200	158	27	28	35	5	57	140	12
OKLAHOMA																																				
OKLAHOMA CITY	21.8	9.7	15.8	41.1	AUG. 11+	- 18.3	JAN. 11	2045	698	86	JUN. 1-2	267	155	JAN. 5	76	82	58	56	5.8	SSE	29.5	SW	MAY 25	68	5.3	132	100	133	83	3	49	26	68	10	75	1
TULSA	21.3	9.3	15.3	38.9	AUG. 19	- 17.8	JAN. 11+	2166	1053	83	SEP. 3	140	46	FEB. 27	75	83	59	57	4.8	SSE	16.5	SE	MAR. 28	61	5.5	128	93	144	94	3	49	16	62	12	86	2
OREGON																																				
ASTORIA	14.2	6.2	10.2	30.0	SEP. 17	- 10.0	JAN. 21	2917	1631	78	OCT. 8-9	142	102	FEB. 28	91	81	73	88	4.2	SSE	23.2*	SSW	APR. 27		7.8	44	65	256	189	2	7	62	0	2	38	0
BURNS U	15.4	.1	7.7	35.0	JUL. 23	- 32.2	JAN. 21	3934	307	36	OCT. 9-10	848	142	JAN. 19-20	73	56	43	62							5.6	124	85	156	86	9	7	14	14	22	182	7
EUGENE	16.9	5.3	11.1	35.6	JUL. 27+	- 14.4	JAN. 22	2668	951	65	NOV. 25-26	99	51	JAN. 19		74	59		3.4		28.2*	S	OCT. 12		6.7	77	100	18[illegible]	118	2	0	69	12	5	53	0
MEACHAM	11.1	1.1	6.1	31.7	JUL. 24	- 24.4	JAN. 21	4464	709	32	OCT. 7	2466	274	MAR. 3-4		65									6.5	100	74	191	137	27	3	33	0	43	168	7
MEDFORD	18.8	3.6	11.2	39.4	JUL. 27+	- 17.8	JAN. 22	2792	588	94	DEC. 1-2	343	132	JAN. 19	86	69	48	72	2.1	WNW	17.9*	SSW	OCT. 12+		5.8	117	84	164	97	3	5	72	46	9	93	1
PENDLETON	17.4	5.7	11.6	40.0	JUL. 24	- 23.3	JAN. 21	2758	309	18	MAY 19-20	259	157	JAN. 19-20	68	54	47	61	4.0	W	21.9*	W	JAN. 3		6.1	110	77	178	98	4	6	40	28	16	59	4
PORTLAND U	16.6	8.1	12.4	33.9	JUL. 26	- 8.9	JAN. 21	2293	990	60	NOV. 19-20	206	104	FEB. 27-28	82	71	58	75	3.6	ESE	39.3	S	OCT. 12	43	7.1	68	73	224	134	2	4	54	6	3	21	0
ROSEBURG	18.6	5.2	11.9	38.3	JUL. 27	- 18.3	JAN. 22	2452	717	46	DEC. 1-20	191	191	JAN. 19		73	55		2.0	N#	22.4	S	OCT. 12	55	6.6	76	105	184	127	1	3	76	23	3	50	1
SALEM	16.7	4.8	10.7	36.1	JUL. 26	- 13.3	JAN. 22	2799	886	54	NOV. 24-25	343	137	FEB. 23	88	74	60	81	3.4	S	25.9*	S	OCT. 12		7.0	69	80	216	136	4	3	59	15	5	60	0
SEXTON SUMMIT R	13.4	4.3	8.9	31.7	JUL. 27+	- 18.9	JAN. 21	3508	1042	77	DEC. 1-2	1463	216	JAN. 19		68			5.1	S					5.1	152	61	152	113	15	1	136	0	22	98	1
PACIFIC AREA																																				
CANTON ISLAND	31.2	25.4	28.3	32.8	NOV. 28+	21.7	APR. 24		402	46	APR. 28-29	0	0		79	80	63	75	5.7	ENE	12.5*	NE	SEP. 16+		4.8	144	154	67	101	0	1	0	30	0	0	0

See reference notes at end of table.

ANNUAL CLIMATOLOGICAL DATA
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YEAR 1962

State and Station	Temperature							Heating degree days	Precipitation						Relative humidity				Wind					Possible sunshine	Average sky cover sunrise to sunset	Number of days										
	Averages			Extremes								Snow, Sleet									Fastest mile (1.6 kilometers)					Sunrise to sunset							Max. temp.		Min. temp.	
	Daily maximum	Daily minimum	Annual	Highest	Date	Lowest	Date		Total	Greatest in 24 hours	Date (s)	Total	Greatest in 24 hours	Date (s)	1:00 a.m. E S T	7:00 a.m. E S T	1:00 p.m. E S T	7:00 p.m. E S T	Average speed	Prevailing direction	Speed	Direction	Date			Clear, 0-0.3	Partly cloudy, 0.4-0.7	Cloudy, 0.8-1.0	Precipitation .25mm. or more	Snow, Sleet 25.4mm. or more	Thunderstorms	Heavy fog	32.2 °C and above	0 °C and below	0 °C. and below	-17.8 °C. and below
PACIFIC AREA	°C.	°C.	°C.	°C.		°C.		Base 18 3 °C.	Mm.	Mm.		Mm.	Mm.		%	%	%	%	M.p.s.		M.p.s.			%	Tenths											
ENIWETOK	30.6	25.4	28.1	32.8	OCT. 9	22.8	DEC. 16+		1659	103	DEC. 16	0	0		79	80	72	74	6.5										225	0	3	0	19	0	0	0
KOROR R	30.6	24.2	27.4	32.8	NOV. 16+	22.2	AUG. 2+		4383	209	JUL. 7-8	0	0		91	84	79	87	3.0	NE	13.0	SW	JUL. 29	49	9.7	0	10	355	286	0	34	0	38	0	0	0
KWAJALEIN	30.2	24.8	27.6	31.7	DEC. 14+	22.2	OCT. 17+		2351	100	MAY 29-30	0	0		80	81	74	77	6.4	ENE	18.3*	E	JUL. 5		7.5	35	119	211	245	0	7	0	0	0	0	0
MAJURO	29.7	25.1	27.4	31.1	OCT. 7+	22.2	NOV. 20		3846	149	MAY 13-14	0	0		82	82	76	79	4.9	ENE	17.0	E	MAY 21	61	8.2	14	109	242	280	0	16	0	0	0	0	0
PONAPE R	30.4	23.4	26.9	32.8	DEC. 10+	21.1	DEC. 17+		5476	145	SEP. 28-29	0	0		91	83	79	86	2.4	NE	14.3	E	DEC. 2	48	9.3	0	39	326	306	0	42	0	23	0	0	0
TAGUAC GUAM R	29.4	22.7	26.1	31.7	NOV. 17+	15.6	JAN. 20+		3263	139	FEB. 3-4	0	0						3.4	E#	35.8	NE	NOV. 11						260	0	25	0	0	0	0	0
TRUK MOEN ISLAND	30.1	24.4	27.3	31.7	OCT. 27+	21.1	JUL. 15		4551	264	NOV. 7-8	0	0		86	81	77	81	2.8	NNE	20.1	N	NOV. 8	29	8.8	4	74	287	264	0	25	0	0	0	0	0
WAKE ISLAND	29.3	23.7	26.6	32.2	SEP. 8+	19.4	FEB. 23+		1235	81	OCT. 21	0	0		79	80	71	74	5.7	ENE	16.5*	E	OCT. 18		5.8	85	164	116	172	0	12	0	6	0	0	0
YAP R	30.2	24.2	27.2	32.8	OCT. 18+	21.7	APR. 25+		3784	167	APR. 16-17	0	0		88	83	81	86	3.9	NE	24.6	W	AUG. 2	68	9.9	0	3	362	273	0	17	0	19	0	0	0
PENNSYLVANIA																																				
ALLENTOWN	15.5	4.3	9.9	36.1	MAY 19	- 21.1	FEB. 11	3407	1056	45	JAN. 6-7	960	122	DEC. 21-22	80	81	56	65	4.4	SW	23.2	W	AUG. 20+		6.0	105	109	151	115	13	28	19	12	37	139	3
ERIE	13.3	4.6	9.0	33.9	JUL. 8	- 19.4	FEB. 11	3679	937	63	JUN. 10	1615	234	DEC. 10	76	77	64	69	5.7	S	19.2	SE	MAR. 12+		6.8	76	100	189	145	20	43	16	2	53	130	4
HARRISBURG	16.4	5.4	10.9	37.8	AUG. 20	- 17.8	FEB. 11	3201	1005	65	OCT. 4-5	1275	224	MAR. 6	76	79	56	63	3.4	WNW	16.1	NE	MAR. 6	57	6.4	79	111	175	128	13	29	16	21	40	128	1
PHILADELPHIA	16.4	5.9	11.2	35.6	MAY 19	- 16.1	DEC. 31+	3028	1083	92	JUN. 23-24	770	173	MAR. 6	77	76	54	63	4.1	WSW	21.5	NE	MAR. 6	59	6.2	93	112	160	112	8	23	20	10	26	116	0
PITTSBURGH	15.1	4.2	9.7	35.0	AUG. 20	- 20.6	DEC. 13+	3497	803	44	JUL. 2-3	1245	373	MAR. 5-6	78	81	57	62	3.8	WSW	20.6	W	FEB. 14	52	7.1	56	99	210	138	16	33	19	13	44	134	6
READING U	16.4	6.7	11.6	35.6	MAY 19	- 16.1	DEC. 31	2993	1048	84	MAY 31	861	152	FEB. 9					4.4	NW#	29.1	NW	DEC. 31	58	5.9	105	108	152	120	9	17	7	15	33	105	0
SCRANTON	14.2	3.8	9.0	34.4	JUL. 8	- 23.3	FEB. 11	3693	812	66	OCT. 4-5	1057	112	OCT. 26	73	77	55	61	3.7	SW	20.1	W	DEC. 30	54	6.5	79	109	177	124	14	25	31	9	54	147	4
WILLIAMSPORT	15.2	3.5	9.4	35.0	AUG. 20+	- 19.4	FEB. 11	3529	1033	98	OCT. 4-5	1445	170	DEC. 6-7	79	74	54	57	3.5	W	18.3	NNW	DEC. 30		6.7	69	121	175	138	18	29	35	14	42	144	3
RHODE ISLAND																																				
BLOCK ISLAND	12.7	5.9	9.3	31.1	AUG. 8	- 20.0	DEC. 31+	3378	1514	103	JAN. 6-7	612	180	FEB. 14-15		74	62								6.2	99	109	157	117	7	15	81	0	32	95	2
PROVIDENCE	14.2	4.3	9.3	31.7	JUN. 1	- 20.6	DEC. 31+	3468	1278	168	OCT. 5-6	1168	429	FEB. 14-15	77	77	55	67	5.0	NNW	20.6	NNW	DEC. 30	57	6.0	102	106	157	118	13	22	26	0	33	125	3
SOUTH CAROLINA																																				
CHARLESTON	23.8	11.9	17.9	36.1	MAY 26	- 13.3	DEC. 13	1321	1553	117	AUG. 3	T	T	DEC. 11+	84	85	56	73	3.8	NNE	24.6Y	SW	NOV. 22	66	5.8	103	110	152	119	0	64	25	43	2	39	0
COLUMBIA	24.1	10.8	17.4	38.3	JUL. 24	- 14.4	DEC. 13	1528	1084	94	FEB. 22	T	T	MAR. 6+	79	84	49	61	3.2	SW	17.9	NNW	AUG. 7	57	5.6	120	104	141	110	0	59	39	93	4	56	0
FLORENCE	23.6	10.9	17.2	37.8	JUL. 23+	- 13.3	DEC. 13	1552	908	73	FEB. 22	8	8	JAN. 12	80	82	51	64	3.8	NNE	15.6	SW	JAN. 6		5.7	116	106	143	115	0	56	45	83	4	48	0
SOUTH DAKOTA																																				
HURON	12.7	.1	6.4	34.4	AUG. 27	- 39.4	FEB. 28	4581	805	55	FEB. 17-18	1920	445	FEB. 17-18	86	88	67	68	5.3	SSE	29.1	NW	MAY 23	59	6.1	105	94	166	105	17	51	31	8	78	175	44
RAPID CITY	15.4	1.7	8.6	37.2	AUG. 21	- 27.8	FEB. 28+	3778	572	56	MAY 21-22	554	91	FEB. 16-17	75	53	53	70	5.0	NNW	24.1	SW	JUN. 14	56	5.9	111	100	154	95	9	49	19	19	43	152	29
SIOUX FALLS	13.3	1.7	7.6	34.4	AUG. 27+	- 35.0	FEB. 28	4246	774	57	MAY 21-22	1867	660	FEB. 17-18	79	84	62	61	4.6	NW	19.7*	E	AUG. 9		6.1	100	102	163	107	17	54	33	11	72	164	34
TENNESSEE																																				
BRISTOL	19.1	7.6	13.4	33.9	AUG. 20	- 22.8	DEC. 13	2437	1107	75	SEP. 15-16	800	132	DEC. 24-25	80	84	56	62	2.4	WSW	20.6	NNW	AUG. 21		6.3	89	105	171	140	11	45	38	17	11	90	4
CHATTANOOGA	21.8	9.6	15.7	37.8	JUL. 23	- 18.9	DEC. 13	1973	1407	95	FEB. 22-23	132	81	JAN. 9-10	83	86	55	60	3.1	S	18.8	NW	APR. 13+	60	5.9	116	93	156	121	3	56	31	79	6	68	1
KNOXVILLE	20.8	9.1	15.0	35.6	SEP. 3+	- 18.9	DEC. 13	2131	1386	114	JUL. 24-25	607	305	JAN. 9-10	74	80	54	58	3.5	NE	26.4	SW	MAR. 21	54	6.3	90	100	175	125	6	50	35	48	9	70	1
MEMPHIS	21.7	11.0	16.4	37.2	AUG. 19	- 20.0	JAN. 12	1891	1092	65	AUG. 30	203	119	JAN. 9	78	83	59	63	3.8	S	17.4	NE	JUL. 6	67	5.5	121	100	144	109	2	53	17	68	6	58	3
NASHVILLE	20.9	8.9	14.9	38.3	AUG. 19	- 21.7	DEC. 13	2211	1462	129	SEP. 13	328	119	DEC. 24	82	87	59	64	3.2	S	23.2	NW	FEB. 27	58	6.1	99	102	164	109	5	56	14	74	10	84	5
OAK RIDGE AREA STA	20.2	8.2	14.2	35.0	AUG. 20+	- 20.6	DEC. 13	2236	1423	73	SEP. 16																		128				32	9	83	4
OAK RIDGE	20.1	8.1	14.1	35.0	AUG. 20+	- 19.4	DEC. 13	2288	1552	87	SEP. 16-17	462	211	JAN. 9-10					1.7		21.5		MAY 21		5.6	133	77	155	127	5	47	28	34	10	89	4

See reference notes at end of table

ANNUAL CLIMATOLOGICAL DATA
METRIC UNITS

State and Station	Temperature							Heating degree days	Precipitation						Relative humidity				Wind					Possible sunshine	Average sky cover sunrise to sunset	Number of days										
	Averages			Extremes								Snow, Sleet									Fastest mile (1.6 kilometers)					Sunrise to sunset							Max. temp.		Min. temp	
	Daily maximum	Daily minimum	Annual	Highest	Date	Lowest	Date		Total	Greatest in 24 hours	Date (s)	Total	Greatest in 24 hours	Date (s)	1:00 a.m. E.S.T.	7:00 a.m. E.S.T.	1:00 p.m. E.S.T.	7:00 p.m. E.S.T.	Average speed	Prevailing direction	Speed	Direction	Date			Clear, 0-0.3	Partly cloudy, 0.4-0.7	Cloudy, 0.8-1.0	Precipitation 25mm or more	Snow, Sleet 25.4mm. or more	Thunderstorms	Heavy fog	32.2 °C and above	0 °C and below	0 °C and below	-17.8 °C. and below
TEXAS	°C.	°C.	°C.	°C		°C		Base 18.3 °C.	Mm.	Mm.		Mm.	Mm.		%	%	%	%	M.p.s		M.p.s.			%	Tenths											
ABILENE	25.0	11.5	18.3	40.0	AUG. 6	- 14.4	JAN. 11	1400	689	72	JUL. 25-26	155	145	MAR. 14	67	77	49	44	4.6	SSE	20.6	NW	JUN. 9	71	4.9	155	87	123	62	1	41	5	109	4	56	0
AMARILLO	22.2	7.2	14.7	37.2	AUG. 10+	- 22.2	JAN. 11	2140	756	112	JUN. 17-18	274	193	NOV. 17	65	75	46	40	6.1	SSW	25.0	N	MAR. 24	75	4.4	163	108	94	70	2	51	34	77	10	88	3
AUSTIN	26.3	14.4	20.4	40.6	AUG. 12+	- 10.6	JAN. 12+	928	850	116	AUG. 24-25	T	T	MAR. 14+	73	83	53	50	4.0	S	21.0	N	JAN. 5	61	5.3	131	102	132	70	0	48	21	115	4	20	0
BROWNSVILLE	28.3	18.3	23.3	38.9	AUG. 14	- 7.2	JAN. 12	332	406	75	MAY. 1-2				85	89	59	67	5.6	SE	17.4	E	MAY 1	59	5.4	118	130	117	67	0	15	32	126	2	4	0
CORPUS CHRISTI	27.7	17.0	22.4	39.4	AUG. 14+	- 10.0	JAN. 12	563	393	46	DEC. 23-24	T	T	MAR. 1	81	86	58	63	5.7	SSE	25.0	SE	JUN. 1	65	5.6	114	127	124	64	0	23	27	129	2	9	0
DALLAS	24.4	13.3	18.9	39.4	AUG. 11+	- 13.3	JAN. 11+	1294	1390	125	OCT. 8	132	56	JAN. 9	70	80	56	52	5.3	SSE	18.8	SW	MAY 28+	64	5.1	141	100	124	77	3	50	7	94	5	37	0
EL PASO	25.2	10.4	17.8	38.9	AUG. 29+	- 22.2	JAN. 11	1417	210	43	SEP. 4-5	41	30	JAN. 10	54	35	27	42	3.4	WSW	27.3	N	AUG. 15+	83	3.5	211	85	69	47	1	28	3	114	3	51	2
FORT WORTH	24.7	12.9	18.8	40.0	AUG. 10	- 13.9	JAN. 11	1352	1052	78	JUL. 26-27	130	64	MAR. 14	72	82	56	53	5.5	S	22.8*	N	FEB. 5		5.1	147	90	128	85	2	49	13	99	6	42	0
GALVESTON U	23.6	18.6	21.1	36.1	AUG. 10	- 7.8	JAN. 11+	646	815	76	JUN. 19								5.4		18.8	NE	DEC. 24	67					84	0			11	2	5	0
GALVESTON	24.2	18.2	21.2	36.1	AUG. 10+	- 8.3	JAN. 11	679	771	48	NOV. 27				74	77	65	67	4.8	S					5.3	129	113	123	90	0	47	27	55	2	6	0
HOUSTON U	26.7	17.7	22.2	41.1	AUG. 9	- 6.7	JAN. 11+	584	1048	98	JUN. 3-4	T	T	JAN. 9															97	0			117	2	6	0
HOUSTON	26.6	15.3	20.9	41.1	AUG. 13	- 8.3	JAN. 12+	721	943	70	NOV. 27				89	92	64	69	4.4	SSE				67	5.8	100	127	138	94	0	58	45	109	2	10	0
LAREDO	30.4	17.3	23.8	42.2	AUG. 10	- 7.8	JAN. 12	485	332	55	APR. 22-23				66	79	46	38	5.3	SE	19.2*	S	JUN. 10		4.5	161	111	93	54	0	25	11	184	1	6	0
LUBBOCK	23.4	8.0	15.7	37.8	MAY 11	- 20.0	JAN. 11	1893	466	39	JUL. 23-24	46	36	DEC. 23-24	66	78	50	43	6.3	S	25.9*	S	MAY 12		4.2	172	104	89	76	1	49	14	86	4	89	1
MIDLAND	25.2	10.9	18.1	39.4	AUG. 7+	- 22.2	JAN. 11	1440	358	55	SEP. 4-5	147	89	MAR. 14	57	72	43	35	5.0	SSE	20.6*	NW	JUN. 11+		4.5	159	112	94	45	2	34	14	117	3	53	1
PORT ARTHUR	26.4	14.5	20.5	41.7	AUG. 10	- 10.0	JAN. 12	847	989	107	NOV. 27	T	T	JAN. 12+	91	93	63	74	4.0	S	25.0	NE	AUG. 14	62	5.8	99	137	129	92	0	59	38	114	2	16	0
SAN ANGELO	27.0	12.1	19.6	41.7	AUG. 10+	- 13.3	JAN. 11	1225	267	49	JUL. 15-16	79	79	MAR. 14-15	61	73	43	39	4.2	SSE	19.2*	WNW	MAR. 24		4.4	177	87	101	51	1	39	4	139	2	56	0
SAN ANTONIO	27.3	14.9	21.2	41.1	AUG. 13	- 12.2	JAN. 12	829	607	102	NOV. 26-27	T	T	MAR. 14	73	82	53	46	4.5	SSE	16.5	N	JAN. 9	63	4.9	143	111	111	60	0	30	28	137	1	16	0
VICTORIA	27.1	15.6	21.3	41.7	AUG. 13	- 8.9	JAN. 12	689	658	91	SEP. 9-10					89	56	61	4.9		24.1Y		JAN. 9		5.5	115	129	121	73	0	45	30	118	2	12	0
WACO	25.9	13.8	19.9	42.2	AUG. 10	- 10.6	JAN. 11+	1103	574	55	MAY 28-29	25	25	MAR. 14	72	83	54	51	6.1	SSE	20.6*	WSW	MAR. 24+		5.0	152	92	121	73	1	39	14	120	4	31	0
WICHITA FALLS	24.4	11.0	17.7	43.9	AUG. 11	- 18.3	JAN. 11	1563	791	76	JUL. 26	66	25	JAN. 9	70	79	51	49	4.5	S	21.5*	W	JUN. 7+		4.9	161	76	128	66	1	49	16	102	8	61	1
UTAH																																				
MILFORD	18.8	- .4	9.2	38.3	AUG. 14	- 30.0	JAN. 24	3581	182	28	SEP. 28	922	135	JAN. 20-21		38	31								4.3	168	92	105	65	16	27	11	65	29	179	24
SALT LAKE CITY	17.4	3.2	10.3	38.3	AUG. 15	- 25.6	JAN. 23	3399	378	60	JUL. 12-13	1420	246	MAR. 9-10+	70	49	44	65	4.1	S	21.9	S	JAN. 20	69	5.4	132	90	143	78	19	34	27	56	47	133	7
WENDOVER	16.9	5.1	11.1	37.2	JUL. 5	- 19.4	JAN. 23	3239	132	24	OCT. 4-5	251	58	JAN. 19-20	50	39	32								4.6	160	95	110	47	5	29	9	44	42	126	3
VERMONT																																				
BURLINGTON	11.4	- .4	5.6	33.3	JUL. 8	- 31.7	FEB. 2	4741	825	44	JUL. 31	1803	272	FEB. 24	78	77	58	68	3.5	S	21.0	S	JAN. 16	53	6.9	75	91	199	138	18	26	19	2	67	180	41
VIRGINIA																																				
LYNCHBURG	18.1	7.4	12.8	34.4	AUG. 21	- 16.1	DEC. 13	2559	1006	58	NOV. 9-10	1278	287	MAR. 5-6		82	57	66	3.6		15.6	NE	NOV. 27	53	6.1	94	113	158	120	10	37	34	10	15	94	0
NORFOLK	18.7	9.7	14.2	35.0	AUG. 21	- 11.1	JAN. 13	2194	1324	91	JUL. 3-4	467	107	JAN. 28	81	81	64	72	5.0	SW	23.2	SE	9		6.0	98	115	152	115	4	30	25	16	13	74	0
RICHMOND	20.0	7.7	13.8	36.1	JUL. 19+	- 15.6	JAN. 11	2318	1235	95	JUN. 12-13	1194	307	MAR. 5-6	82	84	55	69	3.4	NNE	20.1	N	MAY 8	56	6.3	96	103	166	114	9	23	34	42	11	92	0
ROANOKE	18.8	7.4	13.1	35.6	AUG. 21+	- 16.7	DEC. 13+	2516	1047	76	NOV. 9	1008	213	DEC. 24-25	74	77	53	60	3.9	SE	20.6	N	MAY 15		6.0	100	115	150	124	11	39	24	29	12	96	0
WASHINGTON																																				
OLYMPIA	15.5	3.9	9.7	34.4	JUL. 23	- 15.6	JAN. 21	3129	1296	110	NOV. 19	351	193	FEB. 28-1	90	77	63	85	3.1	SW	25.9*	SW	OCT. 12		7.6	45	82	238	164	5	2	93	6	2	82	0
SEATTLE-TACOMA	14.7	6.3	10.6	31.1	JUL. 28+	- 10.6	JAN. 21	2847	909	49	NOV. 24-25	246	183	FEB. 28-1	86	77	64	78	4.2	SSW	20.1*	SSW	APR. 27		7.4	56	78	231	155	2	4	57	0	2	40	0
SEATTLE	15.4	8.6	12.0	32.2	JUL. 28+	- 6.7	JAN. 21	2341	775	36	NOV. 24-25	208	178	FEB. 28-1	84	74	61	76	2.6	SSE	29.1	SW	12	46	7.5	52	81	232	153	2	5	32	2	2	16	0
SPOKANE	13.8	2.9	8.3	36.1	JUL. 25+	- 25.0	JAN. 21+	3764	432	23	APR. 27	937	150	JAN. 16-17	78	64	52	67	3.9	SSW	22.4	SW	NOV. 20+	59	6.9	76	88	201	113	12	16	65	16	34	117	7

See reference notes at end of table

ANNUAL CLIMATOLOGICAL DATA
METRIC UNITS

YEAR 1962

State and Station	Temperature							Heating degree days	Precipitation						Relative humidity				Wind					Possible sunshine	Average sky cover sunrise to sunset	Number of days										
	Averages			Extremes								Snow, Sleet									Fastest mile (1.6 kilometers)					Sunrise to sunset							Max. temp.		Min. temp.	
	Daily maximum	Daily minimum	Annual	Highest	Date	Lowest	Date		Total	Greatest in 24 hours	Date (s)	Total	Greatest in 24 hours	Date (s)	1:00 a.m E S T	7:00 a.m E S T	1:00 p.m E S T	7:00 p.m E S T	Average speed	Prevailing direction	Speed	Direction	Date			Clear, 0-0.3	Partly cloudy, 0.4-0.7	Cloudy, 0.8-1.0	Precipitation 25mm or more	Snow, Sleet 25.4mm. or more	Thunderstorms	Heavy fog	32.2°C and above	0°C and below	0°C. and below	-17.8°C. and below
WASHINGTON	°C.	°C.	°C.	°C.		°C		Base 18.3°C.	Mm.	Mm.		Mm.	Mm.		%	%	%	%	M.p.s.		M.p.s.			%	Tenths											
STAMPEDE PASS R	7.6	.8	4.2	27.2	JUL. 30+	- 18.9	JAN. 19	5106	2158	202	NOV. 19-20	9202	485	NOV. 29-30	90	83	77								7.7	54	56	255	200	74	3	261	0	71	175	2
TATOOSH ISLAND	11.7	7.1	9.4	20.0	SEP. 4+	- 3.9	JAN. 19	3201	1950	78	NOV. 18-19	373	142	FEB. 27-28	87	83	81	86	6.8	ENE	35.8	SW	NOV. 25	37	7.9	41	67	257	190	5	5	86	0	1	13	0
WALLA WALLA U	17.3	7.1	12.2	39.4	JUL. 24	- 17.2	JAN. 21	2601	466	28	DEC. 1-2	175	74	FEB. 28-1		59			2.2	W#	16.5	W	JAN. 7	55	6.5	94	82	189	98	2	8	34	24	18	61	0
YAKIMA	17.3	2.6	9.9	38.3	JUL. 25	- 17.2	JAN. 22	3218	189	16	OCT. 11	231	58	MAR. 4-5	79	57	43	68	3.0	WNW	19.7*	WSW	JAN. 25		6.0	106	98	161	72	5	8	16	25	17	127	0
WEST INDIES																																				
SAN JUAN P.R. U	28.8	22.9	25.9	34.4	OCT. 19+	18.3	FEB. 15		1435	80	DEC. 21-22				88	85	66	78	3.2	ENE	15.2	E	JAN. 22	58	6.0	46	226	93	190	0	28	0	17	0	0	0
WEST VIRGINIA																																				
CHARLESTON	18.2	6.9	12.6	35.0	AUG. 20	- 22.8	JAN. 11	2707	1251	58	NOV. 9-10	930	185	DEC. 5-6	82	85	58	63	2.5	SW	15.6	WSW	JAN. 15		7.1	55	114	196	150	11	41	118	17	18	100	5
HUNTINGTON	17.8	6.4	12.1	35.6	AUG. 20	- 20.6	JAN. 11	2551	1155	108	JUL. 1-2	424	64	DEC. 5-6	83	87	62	65	2.7	SSW	13.0	SW	JAN. 15		6.8	69	106	190	148	8	39	55	10	20	111	5
PARKERSBURG U	17.7	6.3	12.1	36.7	AUG. 20	- 21.1	JAN. 11	2871	999	54	SEP. 1-2	780	102	FEB. 1					2.7		17.9	W	JAN. 26	47					138	13	37	16	18	26	112	5
WISCONSIN																																				
GREEN BAY	11.6	1.1	6.3	32.2	AUG. 28+	- 33.9	MAR. 1	4523	696	31	JUN. 17-18	1471	150	FEB. 25-26	82	84	67	70	3.5	SW	21.0	S	NOV. 20	48	6.6	83	97	185	121	21	39	28	2	74	159	38
LA CROSSE	12.3	2.6	7.4	33.3	AUG. 19	- 33.3	MAR. 1	4241	687	100	AUG. 30-31	1554	191	MAR. 4		82	62	64	4.6	S	24.1*	WSW	MAY 22		6.8	72	106	187	107	17	40	35	5	73	156	30
MADISON	12.6	1.3	6.9	33.9	AUG. 23	- 33.9	MAR. 1	4367	544	55	JUL. 1-2	1102	119	FEB. 21	81	83	63	66	4.2	S	22.4	W	JUN. 17	50	6.8	67	112	186	120	15	38	21	3	75	171	29
MILWAUKEE	12.1	2.2	7.2	33.9	AUG. 19+	- 25.6	DEC. 26	4257	557	41	JUL. 2	1707	325	JAN. 6-7	80	82	68	70	4.8	SSW	17.4	W	JUL. 22	53	6.5	87	94	184	116	17	31	29	5	77	155	23
WYOMING																																				
CASPER	14.8	.6	7.7	34.4	JUL. 6	- 34.4	JAN. 9	3994	356	63	OCT. 5-6	1090	155	JAN. 7-8	69	45	41	63	2.7	SW	17.9*	W	AUG. 26		5.6	125	105	139	91	11	48	10	16	39	156	24
CHEYENNE	15.0	.3	7.7	34.4	AUG. 14	- 31.1	FEB. 27	3954	371	25	SEP. 24	993	254	JAN. 7-8	67	42	47	65	5.8	WNW	25.5	W	NOV. 20	63	5.6	113	113	139	102	11	68	24	5	42	161	17
LANDER	14.6	- .3	7.2	34.4	AUG. 14+	- 35.6	JAN. 22	4206	305	31	APR. 20-21	1354	351	JAN. 20	62	46	40	55	3.0	WSW#	29.1	SW	DEC. 3	75	5.1	119	137	109	66	14	29	1	16	46	173	29
SHERIDAN	14.4	- .1	7.2	37.2	AUG. 4	- 31.1	JAN. 19	4128	350	47	JUN. 15-16	904	132	JAN. 7-8	76	54	51	71	3.0	NW	28.2	NW	JAN. 6	64	5.9	104	110	151	101	13	41	2	13	44	172	28

Data from airport unless otherwise specified. U indicates Urban, R indicates Rural, sites.

* Value entered in column "Fastest Mile" is the highest observed 1-minute wind speed. This station is not equipped with a recording anemometer from which Fastest Mile data can be evaluated.

+ And also on an earlier date or dates.

A Maximum hourly average.

B Number of days maximum 21.1°C. or above for Alaskan Stations.

Data in this table are obtained by conversion from data in the English Units table.

Y Peak gust.

# Wind direction to 8 compass points only.

F Computed as of 8:00 a.m. local time.

K Computed as of noon local time.

V Sun below horizon November 19 - January 23.

X Sun below horizon November 24 - January 17.

// Station moved to airport January 19.

AP Over certain elements indicates data from airport.

ELEVATIONS FROM WHICH STATION PRESSURES ARE REDUCED

State and station	Ft.	Mtrs.
ALABAMA		
Birmingham	700	213
Huntsville	644	196
Mobile	57	17
Montgomery	218	66
ALASKA		
Anchorage	132	40
Annette	110	34
Barrow	13	4
Barter Island	50	15
Bethel	38	12
Cold Bay	103	31
Cordova	40	12
Fairbanks	454	138
Juneau	24	7
King Salmon	49	15
Kotzebue	16	5
McGrath	338	103
Nome	22	7
Northway	1721	525
Shemya	102	31
St. Paul Island	28	9
Yakutat	31	9
ARIZONA		
Flagstaff	7018	2137
Phoenix	1107	336
Prescott	5022	1531
Tucson	2555	779
Winslow	4883	1488
Yuma	141	43
ARKANSAS		
Fort Smith	463	141
Little Rock	357	109
Texarkana	368	112
CALIFORNIA		
Bakersfield	492	150
Bishop	4145	1263
Blue Canyon	5283	1610
Burbank	725	221
Eureka (U)	60	18
Fresno	327	100
Long Beach	40	12
Los Angeles	104	32
Mt. Shasta (R)	3587	1094
Oakland	7	2
Point Arguello (R)	367	112
Red Bluff	353	108
Sacramento	25	8
Sandberg (R)	4523	1378
San Diego	87	27
San Francisco	18	5
Santa Maria	238	73
COLORADO		
Alamosa	7541	2298
Colorado Springs	6170	1881
Denver	5292	1613
Grand Junction	4602	1403
Pueblo	4690	1430
CONNECTICUT		
Bridgeport	17	5
Hartford	159	48
Middletown (Canel)	133	40
New Haven	13	4
DELAWARE		
Wilmington	80	24
DISTRICT OF COLUMBIA		
Wash. Nat'l AP	112	34
FLORIDA		
Apalachicola (U)	35	11
Daytona Beach	41	12
Fort Myers	12	4
Jacksonville	31	9
Key West	21	6
Miami	25	7
Orlando	119	36
Tallahassee	68	21
Tampa	35	11
West Palm Beach	21	6
GEORGIA		
Athens	811	247
Atlanta	1173	358
Augusta	182	55
Columbus	394	120
Macon	370	113
Rome	643	196
Savannah	65	20
HAWAII		
Hilo	36	11
Honolulu	15	5
Kahului	67	20
Lihue	148	45
IDAHO		
Boise	2739	835
Idaho Falls 46W (R)	4939	1505
Lewiston	1436	438
Pocatello	4478	1365
ILLINOIS		
Cairo (U)	357	109
ILLINOIS (Cont'd.)		
Chicago (O'Hare)	674	205
Chicago (Midway)	623	190
Moline	606	185
Peoria	609	186
Rockford	743	226
Springfield	636	194
INDIANA		
Evansville	431	131
Fort Wayne	857	261
Indianapolis	823	251
South Bend	773	236
IOWA		
Burlington	702	214
Des Moines	860	262
Dubuque	699	213
Sioux City	1138	347
Waterloo	878	268
KANSAS		
Concordia (U)	1392	424
Concordia	1392	424
Dodge City	2509	765
Goodland	3688	1124
Topeka	987	301
Wichita	1358	414
KENTUCKY		
Lexington	989	301
Louisville	525	160
LOUISIANA		
Alexandria	118	36
Baton Rouge	76	23
Lake Charles	32	10
New Orleans (Audubon)	177	54
New Orleans	30	9
Shreveport	249	76
MAINE		
Caribou	628	191
Portland	103	31
MARYLAND		
Baltimore	123	37
MASSACHUSETTS		
Blue Hill Obs. (R)	640	195
Boston	124	38
Nantucket	12	4
Worcester	1001	305
MICHIGAN		
Alpena	693	211
Detroit (City AP)	730	223
Detroit (M. Wayne Co.)	664	202
Detroit (Willow Run)	777	237
Escanaba (U)	612	187
Flint	766	233
Grand Rapids	707	215
Lansing	878	271
Marquette (U)	734	224
Muskegon	633	193
Sault Ste. Marie	614	187
MINNESOTA		
Duluth	1133	345
International Falls	1126	343
Minneapolis-St. Paul	919	280
Rochester	1320	402
St. Cloud	1043	318
MISSISSIPPI		
Jackson	331	101
Meridian	375	114
Vicksburg (U)	247	75
MISSOURI		
Columbia	784	239
Kansas City	963	294
St. Joseph	967	295
St. Louis (Lambert)	564	171
Springfield	1324	404
MONTANA		
Billings	3570	1088
Butte	5533	1686
Glasgow	2086	636
Great Falls	3657	1115
Havre	2507	764
Helena	4123	1257
Kalispell	2973	906
Missoula	3263	995
NEBRASKA		
Grand Island	1856	566
Norfolk	1551	473
North Platte	2821	860
Omaha (Eppley AP)	1105	337
Omaha (N. Omaha AP)	1323	403
Scottsbluff	3958	1206
Valentine	2598	792
NEVADA		
Elko	5078	1526
Ely	6262	1909
Las Vegas	1869	570
Reno	4527	1380
Winnemucca	4399	1341
NEW HAMPSHIRE		
Concord	289	88
Mt. Washington Obs.	6267	2010
NEW JERSEY		
Atlantic City (Exp. Cntr.)	52	16
Newark	30	9
Trenton (U)	190	58
NEW MEXICO		
Albuquerque	4972	1515
Clayton	5052	1525
Raton	6382	1945
Roswell	3566	1087
Silver City	5453	1662
NEW YORK		
Albany	97	30
Binghamton	1638	499
Buffalo	768	234
New York Central Park	314	96
New York (U)	33	10
New York (Inter. AP)	22	7
New York (LaGuardia)	52	16
Rochester	523	159
Syracuse	596	182
NORTH CAROLINA		
Asheville (U)	2253	687
Cape Hatteras (R)	11	3
Charlotte	779	237
Greensboro	886	270
Raleigh	376	115
Wilmington	72	22
Winston-Salem	967	295
NORTH DAKOTA		
Bismarck	1677	511
Devils Lake (U)	1478	451
Fargo	940	287
Williston (U)	1878	571
OHIO		
Akron	1052	321
Cincinnati (U)	627	191
Cincinnati	877	263
Cleveland	762	232
Columbus	822	251
Dayton	900	274
Sandusky (U)	632	193
Toledo	692	211
Youngstown	1186	361
OKLAHOMA		
Oklahoma City	1214	370
Tulsa	676	206
OREGON		
Astoria	22	7
Burns (U)	4170	1271
Eugene	373	114
Medford	1329	405
Pendleton	1495	456
Portland	154	47
Roseburg	510	155
Salem	201	61
Sexton Summit (R)	3841	1171
PACIFIC AREA		
Canton Island	11	3
Eniwetok	21	6
Johnston Island	17	5
Koror (R)	109	33
Kwajalein	26	8
Majuro	10	4
Ponape (R)	151	46
Truk (Moen Island)	8	2
Wake Island	12	4
Yap (R)	56	17
PENNSYLVANIA		
Allentown	385	117
Erie	714	218
Harrisburg	378	115
Philadelphia	114	15
Pittsburgh	842	257
Reading (U)	323	98
Scranton	948	289
Williamsport	525	160
RHODE ISLAND		
Block Island	118	36
Providence	159	48
SOUTH CAROLINA		
Charleston	48	15
Columbia	347	106
Florence	151	46
Greenville	1040	317
Spartanburg	824	251
Gnle-Spartanburg	971	296
SOUTH DAKOTA		
Huron	1301	397
Rapid City	3259	993
Sioux Falls	1427	435
TENNESSEE		
Bristol	1525	465
Chattanooga	762	232
Knoxville	980	299
TENNESSEE (Cont'd.)		
Memphis	399	122
Nashville	546	166
Oak Ridge	914	279
TEXAS		
Abilene	1738	530
Amarillo	3676	1120
Austin	605	184
Brownsville	57	17
Corpus Christi	20	6
Dallas	512	156
El Paso	3778	1152
Fort Worth	576	176
Galveston	54	16
Houston	62	19
Laredo	418	127
Lubbock	3241	988
Midland	2862	872
Port Arthur	34	10
San Angelo	1908	582
San Antonio	693	211
Victoria	117	36
Waco	578	176
Wichita Falls	1030	314
UTAH		
Milford	5097	1526
Salt Lake City	4357	1328
Wendover	4239	1292
VERMONT		
Burlington	403	123
VIRGINIA		
Lynchburg	686	209
Norfolk	30	9
Richmond	164	50
Roanoke	1176	358
WASHINGTON		
Olympia	200	61
Seattle-Tacoma	388	118
Spokane	1929	588
Stampede Pass (R)	3967	1209
Tatoosh Island (R)	86	26
Walla Walla (U)	991	302
Yakima	1076	307
WEST INDIES		
San Juan, P. R.	62	19
Swan Island	28	9
WEST VIRGINIA		
Charleston	989	301
Elkins	1947	593
Huntington	838	255
WISCONSIN		
Green Bay	617	188
La Crosse	672	205
Madison	974	297
Milwaukee	681	208
WYOMING		
Casper	5290	1612
Cheyenne	6094	1830
Lander	5352	1631
Sheridan	3790	1155

Data from airport unless otherwise specified. U indicates Urban, R indicates Rural, sites.

These are the elevations of the barometer (in feet and meters above mean sea level) to which station pressure values pertain in the "Climatological Data" table in the monthly publication CLIMATOLOGICAL DATA NATIONAL SUMMARY. When an elevation differs from the present station elevation this level was selected to permit comparison of data for a longer period of homogeneous record.

GENERAL SUMMARY OF TORNADOES, 1962

L. V. Wolford, Climatology
U. S. Weather Bureau, Washington, D. C.

This 1962 summary of tornadoes, compiled from the monthly publication Storm Data, shows a total of 658 tornadoes occurring on 153 days, a loss of 28 lives, and 470 personal injuries. Nine storms, included in the total number of tornadoes, originated as waterspouts but became tornadoes as they moved onto land, or began as tornadoes and developed into waterspouts over water surfaces. These waterspout-tornado storms damaged beach cottages, homes, boat houses, boats, trees, and telephone- and powerlines and caused injuries to 3 persons. Also reported, but not included in the totals for the year, were 765 funnel clouds which remained aloft, 84 waterspouts over water surfaces only near the United States, 11 dust devils, and 1 classified as a whirlwind. The 1962 total of 658 tornadoes was exceeded in 2 previous years, 1957 and 1961. However, of the 658 twisters, 134 moved over open country or touched ground very briefly with no damage resulting, leaving a total of 523 tornadoes which caused damage varying from light to heavy. The number of days on which these storms occurred was the least total since 1955. Loss of life in 1962 was low, in fact the lowest ever recorded in the 47 years of record.

Five of the year's tornadoes crossed state boundaries, 4 in May and 1 in July. On May 14, a tornado developed southwest of Naper, Nebr., and moved for about 120 miles to near Carthage, S. Dak., being the longest reported path of the year. Damage of several thousand dollars was incurred and 11 persons were injured. Another Nebraska-South Dakota tornado occurred in May on the 21st, traveling for about 95 miles from southwest of Spencer, Nebr., to Mitchell, S. Dak., with damage estimated at over $1 million and 31 personal injuries. On May 17, a twister began near Boise City, Okla., moved north-northeastward for about 36 miles to Walsh, Colo., with damage to farmsteads in scattered areas of Boca County, Colorado. In eastern Bucks County, Pennsylvania, a tornado developed near Washington Crossing on May 24, crossed the Delaware River into Mercer County, New Jersey, over a 17-mile path, injuring one person and inflicting damage of several hundred thousand dollars. The storm on July 9 originated at Springfield, Vt., crossed the Connecticut River to northeast of Charlestown, N. H., for a total distance of 8 miles, damaging trees, powerlines, and some buildings.

Tornadoes were reported during each month of 1962. May exceeded all other months, with 201 occurrences on 22 days. These storms were most active on May 28 when 26, the greatest number on a single day during 1962, were observed. Although tornadoes were more numerous on May 28 than on any other day of the year, damage was mostly light, no deaths were reported, and only 5 persons were injured. June recorded the second highest total of 173 tornadoes on 29 days, followed by July with 75 on 26 days, August 49 on 21 days, April 41 on 8 days, March 37 on 9 days, September 27 on 12 days, February 25 on 7 days, October 12 on 10 days, January 11 on 3 days, November 5 on 4 days, December 2 on 2 days.

Of the 47 states and Puerto Rico in which tornadoes were observed, Texas experienced the greatest total of 143, Oklahoma followed with 68, then Kansas with 61; thus, 41 percent of the Nation's tornadoes occurred in these 3 states. Nearly 67 percent occurred in the Great Plains area, with about 50 percent in the southern section and 17 percent in the northern portion. In the eastern half of the Country, 12 percent were reported in the South Atlantic and Middle and East Gulf States, 7 percent in Michigan, Wisconsin, Illinois, Indiana, and Ohio, and slightly over 3 percent in the Northeast. The remainder, about 11 percent, occurred in the 11 Western States. Arizona, Massachusetts, Nevada, New York, Oregon, Tennessee, Utah, Washington, West Virginia, and Puerto Rico each reported only one occurrence. The storm on July 17 in Nevada was only the second actual tornado to have been reported in the State during the past 47 years; the first occurred on April 18, 1949. At Seattle, Wash. the tornado on September 28 was the first that has ever been reported in that city. Alaska, Hawaii, Rhode Island, and the District of Columbia had no tornadic storms during 1962.

The yearly death toll of 28 lives in 1962, resulted from tornadoes on 8 days during 5 months and in 7 states. Seventeen deaths occurred in March, all in Florida as the result of one storm, for the highest monthly total of the year. Six deaths were reported in August for the second highest total, followed by 3 in May, and 1 each in January and April. Florida suffered the greatest loss of life (18) with the 17 deaths at Milton on March 31 and 1 at Crestview on January 5. Ohio followed with 4 lives lost at Cleveland on August 20. Two persons were killed at Cameron, La., on August 28. Four other states reported a loss of one life each, Mississippi on April 28, Iowa on May 22, Connecticut on May 24, and Texas on May 25.

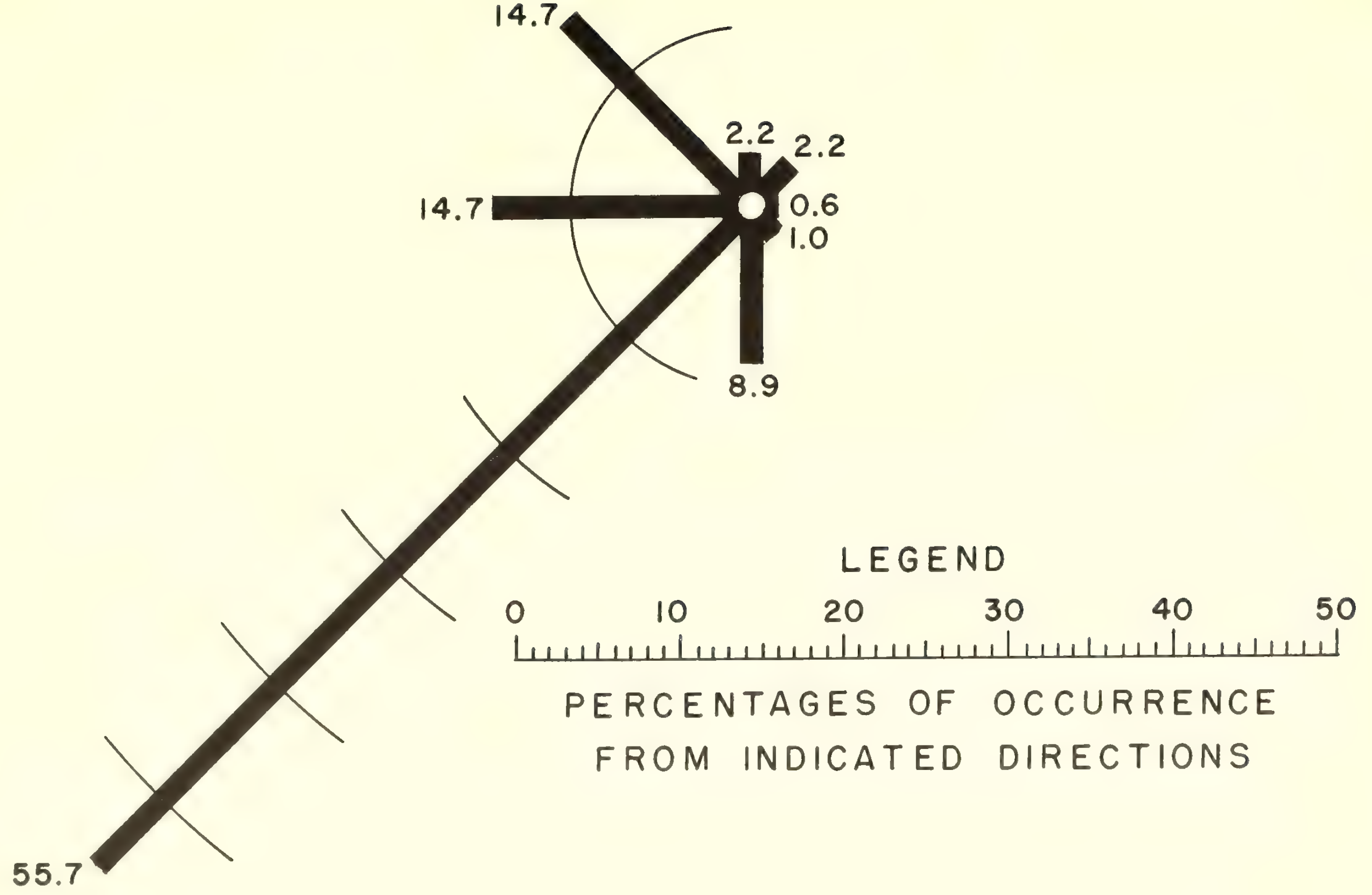
On May 24, the most disastrous tornado of the year from a monetary standpoint struck the Waterbury, Conn., area, causing damage of $3-1/2 million, 1 death, and 50 personal injuries. The tornado at Milton, Fla., on March 31, however, caused a greater death toll of 17, with damage estimated at $1-1/2 million, and 100 persons injured. Also in Florida, another tornado resulted in damage of $1-1/2 million, 1 death, and 30 injured at Crestview on January 5. A boundary-crossing tornado on May 21 caused property damages of between $1 and $1-1/2 million and 31 persons injured as it traveled from southwest of Spencer, Nebr., to Mitchell, S. Dak. Also on May 21, a tornado which moved from Boone to Cedar Counties, Nebraska, caused damages of $1,200,000 and injured 7 persons. Three other tornadoes incurred damages of $1 million; Cleveland, Ohio, with 4 deaths and 20 injuries on August 20; Mineola, Tex., with 8 injuries on March 24; and Oak Forest, Ill., with 2 injuries on June 23. Two other destructive tornadoes occurred during the year. One occurred on May 7 in the Sterling to Harmon areas in Illinois, the other was reported on May 25 in the Dill City area in Oklahoma, with damage from each storm estimated between $500,000 and $5 million.

Tornadoes during 1962 were reported to have occurred during each hour of the day and night. About 85 percent of those on which the time was given occurred between noon and midnight, with nearly 47 percent in the 4 hours between 3 and 7 p.m. The greatest activity was observed between 3 and 4 p.m., with an average of over 16 percent. Only 2 storms struck between 3 and 4 a.m., or three-tenths of 1 percent for the hour of least frequency.

Tornado paths were generally short during 1962, averaging only 9.0 miles long, with a median length of 3 miles. Data on length of path were obtained on about 55 percent of the year's tornadoes. Of these about 36 percent were designated as short or touching the ground briefly, 12 percent moved for distances of 1/2 mile or less, 38 percent from 1/2 to 10 miles, and 14 percent over 10 miles. Paths of only 2 tornadoes exceeded 100 miles in length and on 5 others exceeded 50 miles, the longest moving for 120 miles from near Naper, Nebr., to Carthage, S. Dak., on May 14. Another tornado in South Dakota traveled from Winner to near Letcher and Woonsocket, a distance of about 117 miles, on May 21. On March 31, a twister at Harbor Inn, 40 miles east-northeast of New Orleans, La., moved northeastward for only 30 yards, making this the shortest reported 1962 path. Data were available on the width of paths of only 46 percent of the year's tornadoes, with the average width of those given about 216 yards and a median width of 100 yards. A very narrow path of 7 yards, the narrowest reported during the year, was observed at Cold Spring, Stearns County, Minn., on May 18.

The prevailing direction of movement of tornadic storms during 1962 was, as usual, from the southwest to the northeast, with nearly 56 percent traveling in that direction. About 15 percent came from the northwest and 15 percent from the west; thus, approximately 85 percent moved from a general westerly direction. About 9 percent moved from the south and slightly over 2 percent from the north, leaving nearly 4 percent traveling from all easterly directions. Several tornadoes changed direction of movement during the course of the storm. On May 24, the storm started near Burrton, Kans., moved northeastward toward Hesston, then southward toward Halstead, then reversed itself toward the northeast, and again changed direction to the southeast, and ended after striking Newton. Another in Kansas, 2 days later, on May 26, in the Pauline area traveled northwestward then turned to the northeast. A Georgia tornado made a half circle as it struck Nashville on June 8, moved to the southwest, then to the west, and finally to the northwest. On July 6, a storm in the Ashley, N. Dak., area moved from the northwest, then described a slow loop, and departed towards the southwest.

See the following data accompanying this article: Tornado Rose, Tracks of Tornadoes, and tabulations entitled "Tornado Summary," "Number of Funnel Clouds Aloft," and "Number of Tornadoes, Tornado Days, and Resulting Losses by Years 1916-62."



TORNADO ROSE FOR THE UNITED STATES, GIVING THE PERCENTAGE OF TORNADOES MOVING FROM THE INDICATED DIRECTIONS DURING 1962.

TORNADO SUMMARY

Year 1962

State	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Total
ALA.													
Number	3		8										11
Days	1		4										5
Deaths	0		0										0
Injuries	0		10										10
ALASKA													
(None)													
ARIZ.													
Number							1			2			3
Days							1			1			2
Deaths							0			0			0
Injuries							0			0			0
ARK.													
Number		1	2	1		1			1				6
Days		1	1	1		1			1				5
Deaths		0	0	0		0			0				0
Injuries		0	2	2		0			0				4
CALIF.													
Number		2	1		1								4
Days		1	1		1								3
Deaths		0	0		0								0
Injuries		0	0		0								0
COLO.													
Number					7	11	4		1				23
Days					5	7	4		1				17
Deaths					0	0	0		0				0
Injuries					0	0	0		0				0
CONN.													
Number					1	1							2
Days					1	1							2
Deaths					1	0							1
Injuries					50	0							50
DEL.													
Number						1	1						2
Days						1	1						2
Deaths						0	0						0
Injuries						0	0						0
D. C.													
(None)													
FLA.													
Number	2		4		2	1	2	2	2		2		17
Days	1		1		2	1	2	2	2		2		13
Deaths	1		17		0	0	0	0	0		0		18
Injuries	30		102		1	0	0	0	0		1		134
GA.													
Number	3	1	4	1		1	1				1		12
Days	2	1	3	1		1	1				1		10
Deaths	0	0	0	0		0	0				0		0
Injuries	0	0	0	0		0	0				0		0
HAWAII													
(None)													
IDAHO													
Number					1		1		1				3
Days					1		1		1				3
Deaths					0		0		0				0
Injuries					0		0		0				0
ILL.													
Number			1	1	8	2	1						13
Days			1	1	4	2	1						9
Deaths			0	0	0	0	0						0
Injuries			0	0	0	2	0						2
IND.													
Number			1	7	2	1	2		1				14
Days			1	1	1	1	1		1				6
Deaths			0	0	0	0	0		0				0
Injuries			0	8	0	0	0		0				8
IOWA													
Number					10	1	1						12
Days					5	1	1						7
Deaths					1	0	0						1
Injuries					5	0	0						5
KANS.													
Number					35	13	5	8					61
Days					11	9	5	1					26
Deaths					0	0	0	0					0
Injuries					11	3	0	0					14
KY.													
Number			1		1		1						3
Days			1		1		1						3
Deaths			0		0		0						0
Injuries			0		0		0						0

State	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Total
LA.													
Number		4	1	5		3		3	8	2			26
Days		2	1	2		3		2	5	2			17
Deaths		0	0	0		0		2	0	0			2
Injuries		1	0	1		0		30	0	0			32
MAINE													
Number							1	1					2
Days							1	1					2
Deaths							0	0					0
Injuries							0	0					0
MD.													
Number						2					1		3
Days						2					1		2
Deaths						0					0		0
Injuries						0					0		0
MASS.													
Number							1			1			2
Days							1			1			2
Deaths							0			0			0
Injuries							3			0			3
MICH.													
Number				4				1					5
Days				1				1					2
Deaths				0				0					0
Injuries				0				0					0
MINN.													
Number					6	4	2		2	1			15
Days					2	2	1		1	1			7
Deaths					0	0	0		0	0			0
Injuries					3	0	0		33	0			36
MISS.													
Number		7	1	3							1	1	13
Days		3	1	2							1	1	8
Deaths		0	0	1							0	0	1
Injuries		6	1	6							0	0	13
MO.													
Number		2			6	8	4			1			21
Days		1			4	5	4			1			15
Deaths		0			0	0	0			0			0
Injuries		0			1	0	0			0			1
MONT.													
Number					2	2	2	2					8
Days					2	2	2	2					8
Deaths					0	0	0	0					0
Injuries					0	0	0	0					0
NEBR.													
Number				1	28	9	1	2					41
Days				1	10	5	1	2					19
Deaths				0	0	0	0	0					0
Injuries				0	21	6	0	0					27
NEV.													
Number							1						1
Days							1						1
Deaths							0						0
Injuries							0						0
N. H.													
Number							2						2
Days							1						1
Deaths							0						0
Injuries							0						0
N. J.													
Number					1		1	1					3
Days					1		1	1					3
Deaths					0		0	0					0
Injuries					1		0	0					1
N. MEX.													
Number					5	2	2			1			10
Days					2	2	2			1			7
Deaths					0	0	0			0			0
Injuries					1	0	0			0			1
N. Y.													
Number									1				1
Days									1				1
Deaths									0				0
Injuries									0				0
N. C.													
Number				1		2							3
Days				1		2							3
Deaths				0		0							0
Injuries				0		0							0

TORNADO SUMMARY

Year 1962

State	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Total
N. DAK.													
Number						1	4	4					9
Days						1	2	4					7
Deaths						0	0	0					0
Injuries						0	0	0					0
OHIO													
Number					2		1	1					4
Days					2		1	1					4
Deaths					0		0	4					4
Injuries					0		0	20					20
OKLA.													
Number				4	34	21	6	3					68
Days				3	10	7	5	3					28
Deaths				0	0	0	0	0					0
Injuries				0	15	1	1	0					17
OREG.													
Number					1								1
Days					1								1
Deaths					0								0
Injuries					0								0
PA.													
Number	1				1	1			1				4
Days	1				1	1			1				4
Deaths	0				0	0			0				0
Injuries	0				0	0			0				0
R. I.													
(None)													
S. C.													
Number	1	3		1	1		3	1					10
Days	1	2		1	1		2	1					8
Deaths	0	0		0	0		0	0					0
Injuries	1	1		0	2		0	0					4
S. DAK.													
Number				1	17	11	5	3	1				38
Days				1	6	6	4	3	1				21
Deaths				0	0	0	0	0	0				0
Injuries				0	36	0	0	0	0				36
TENN.													
Number		1											1
Days		1											1
Deaths		0											0
Injuries		0											0
TEX.													
Number		4	12	9	25	56	12	15	7	2		1	143
Days		2	3	4	9	17	7	10	5	2		1	60
Deaths		0	0	0	1	0	0	0	0	0		0	1
Injuries		0	8	13	16	4	5	0	1	0		0	47
UTAH													
Number							1						1
Days							1						1
Deaths							0						0
Injuries							0						0
VT.													
Number					3		2						5
Days					1		1						2
Deaths					0		0						0
Injuries					0		0						0
VA.													
Number	1			2	2	2		1					8
Days	1			1	2	2		1					7
Deaths	0			0	0	0		0					0
Injuries	0			1	0	0		0					1
WASH.													
Number									1				1
Days									1				1
Deaths									0				0
Injuries									0				0
W. VA.													
Number			1										1
Days			1										1
Deaths			0										0
Injuries			0										0
WIS.													
Number						4	2	1		2			9
Days						2	2	1		2			7
Deaths						0	0	0		0			0
Injuries						0	0	0		0			0
WYO.													
Number					3	11	3						17
Days					2	5	3						10
Deaths					0	0	0						0
Injuries					0	4	0						4
PUERTO RICO													
Number						1							1
Days						1							1
Deaths						0							0
Injuries						0							0
TOTALS													
Number	11	25	37	41	205 *201	173	76 *75	49	27	12	5	2	663 *658
Days	†3	†7	†9	†8	†22	†29	†26	†21	†12	†10	†4	†2	†153
Deaths	1	0	17	1	3	0	0	6	0	0	0	0	28
Injuries	31	8	123	31	163	20	9	50	34	0	1	0	470

* Corrected for boundary-crossing tornadoes.

† Tornado days for country as a whole.

NUMBER OF TORNADOES, TORNADO DAYS, AND RESULTING LOSSES BY YEARS 1916-62

Year	Number tornadoes	Number tornado days	Total deaths	Most deaths in a single tornado	Total property losses †	Number of tornadoes causing losses † in		
						category 5	category 6	category 7 & over
1916	90	36	150	30	6	7	1	0
1917	121	38	509	101	7	21	9	0
1918	81	45	135	36	7	20	5	0
1919	64	35	206	59	7	10	2	0
1920	87	50	498	87	7	14	10	0
1921	105	55	202	61	7	22	3	0
1922	108	64	135	16	7	27	5	0
1923	102	59	109	23	6	21	1	0
1924	130	57	376	85	7	26	11	1
1925	119	65	794	689	7	34	2	1
1926	111	57	144	23	6	28	0	0
1927	163	62	540	92	7	42	9	1
1928	203	79	92	14	7	40	7	0
1929	197	74	274	40	7	48	4	0
1930	192	72	179	41	7	38	6	0
1931	94	57	36	6	6	14	1	0
1932	151	67	394	37	7	23	1	1
1933	258	96	362	34	7	46	9	0
1934	147	77	47	6	6	10	3	0
1935	180	77	70	11	6	29	0	0
1936	151	71	552	216	7	17	5	1
1937	147	75	29	5	6	24	0	0
1938	213	76	183	32	7	29	6	0
1939	152	75	87	27	7	21	3	0
1940	124	62	65	18	7	13	2	0
1941	118	57	53	25	6	24	1	0
1942	167	66	384	65	7	42	10	0
1943	152	61	58	5	7	28	8	0
1944	169	68	275	100	7	50	9	0
1945	121	66	210	69	7	21	10	1
1946	106	65	78	15	7	29	7	0
1947	165	78	313	169	7	46	7	1
1948	183	68	140	33	7	62	11	2
1949	249	80	212	58	7	54	13	0
1950	199	88	70	18	7	47	9	0
1951	272	113	34	6	7	35	11	2
1952	236	98	230	57	7	53	19	0
1953	437	136	516	116	8	63	18	7
1954	549	159	35	6	7	63	8	1
1955	593	153	125	80	7	74	13	1
1956	532	155	83	25	7	83	24	1
1957	864	154	191	44	8	129	26	3
1958	565	166	66	19	7	70	8	1
1959	589	156	58	21	7	70	4	1
1960	618	172	47	16	7	65	11	1
1961	683	169	51	16	7	103	21	1
1962	658	153	28	17	7	51	10	0
Means:								
1916-62	---	---	201	--	-	---	--	-
1953-62	609	157	120	--	-	---	--	-

NOTE.--The above estimated losses are based on values at time of occurrence.

† Storm damages in categories:

5	$50,000 to $500,000	7	$5,000,000 to $50,000,000
6	$500,000 to $5,000,000	8	$50,000,000 and over.

This tabulation does not include funnel clouds that remained aloft or funnels on water surfaces only.

NUMBER OF FUNNEL CLOUDS ALOFT, 1962

State	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Total
Ala.				1		3	1			1			6
Alaska													0
Ariz.									1				1
Ark.	1		1	1		1							4
Calif.		2	3										5
Colo.					4	4	8	2					18
Conn.						2							2
Del.													0
D. C.													0
Fla.		2		2	2	6		6	7	3		3	31
Ga.			1					2					3
Hawaii													0
Idaho									1				1
Ill.				6	3	1	5	1	1				17
Ind.				5	3	2	3						13
Iowa					3	2	1	3	1				10
Kans.				7	52	18	5	7		1			90
Ky.				1									1
La.	1	6			1	26	4	4	15	2			59
Maine													0
Md.	2												2
Mass.					1	1							2
Mich.				2	2	2	1	1	3				11
Minn.					14	8	14	3		1			39
Miss.		2				5							7
Mo.					16	11	9	6					42
Mont.					7	2	2						11
Nebr.					14	19	12	10					55
Nev.					2								2
N. H.													0
N. J.								2					2
N. Mex.							4	2					6
N. Y.								1					1
N. C.													0
N. Dak.					1	5	10	3					19
Ohio							1						1
Okla.			1	10	48	17	7	2					85
Oreg.						1							1
Pa.													0
R. I.													0
S. C.				1			1		1				3
S. Dak.					3	18	9	1					31
Tenn.				1		1							2
Tex.		1	4	24	20	55	9	6	16	1			136
Utah													0
Vt.							1						1
Va.				1				1					2
Wash.					1		1						2
W. Va.													0
Wis.					1	7	7	1					16
Wyo.					3	16	6						25
W. Indies													0
Total	4	13	10	62	201	233	121	64	46	9	0	3	765

HAILSTORM LOSSES FOR PAST YEARS

Year	Property (exclusive † of crops)	Crops †	Total †
1933	-	-	7
1934	-	-	7
1935	-	-	7
1936	6	7	7
1937	6	7	7
1938	6	7	7
1939	5	6	6
1940	6	7	7
1941	6	7	7
1942	6	7	7
1943	6	7	7
1944	7	7	8
1945	6	7	7
1946	7	7	7
1947	6	8	8
1948	7	8	8
1949	7	7	7
1950	7	7	7
1951	7	7	8
1952	7	7	7
1953	7	7	7
1954	7	8	8
1955	7	7	8
1956	7	8	8
1957	7	8	8
1958	7	8	8
1959	6	7	7
1960	7	8	8
1961	8	8	8
1962	9	8	9

† Storm damages are placed in categories varying from 1 to 9 as follows:

1	Less than $50	4	$5,000 to $50,000	7	$5,000,000 to $50,000,000
2	$50 to $500	5	$50,000 to $500,000	8	$50,000,000 to $500,000,000
3	$500 to $5,000	6	$500,000 to $5,000,000	9	$500,000,000 to $5,000,000,000.

NOTE.--The above estimated losses are based on values at time of occurrence.

WINDSTORM LOSSES FOR PAST YEARS

(Windstorms other than tornadoes)

Year	Total loss of life	Total property loss †
1916	65	7
1917	25	6
1918	79	7
1919	344	7
1920	42	6
1921	65	7
1922	133	7
1923	68	7
1924	78	7
1925	88	7
1926	357	8
1927	64	7
1928	1,947	8
1929	46	7
1930	49	7
1931	17	7
1932	306	7
1933	156	8
1934	109	7
1935	461	7
1936	121	7
1937	43	7
1938	630	8
1939	60	6
1940	251	7
1941	43	7
1942	68	7
1943	61	7
1944	448	8
1945	85	7
1946	70	7
1947	117	8
1948	52	8
1949	102	8
1950	210	8
1951	289	8
1952	137	8
1953	118	8
1954	292	9
1955	301	8
1956	196	8
1957	553	8
1958	129	8
1959	145	7
1960	85	8
1961	64	8
1962	134	9
	Total 9,303	

† Storm damages are placed in categories varying from 1 to 9 as follows:

1	Less than $50	4	$5,000 to $50,000	7	$5,000,000 to $50,000,000
2	$50 to $500	5	$50,000 to $500,000	8	$50,000,000 to $500,000,000
3	$500 to $5,000	6	$500,000 to $5,000,000	9	$500,000,000 to $5,000,000,000.

NOTE.--The above estimated losses are based on values at time of occurrence.

NORTH ATLANTIC TROPICAL CYCLONES, 1962

Howard C. Sumner, Climatology
U. S. Weather Bureau, Washington, D. C.

The season of 1962 was the first in the 73 years since 1890 in which no hurricane or tropical storm reached the Caribbean Sea or the Gulf of Mexico. The season was unusually late in starting with indications of the first storm, Alma, not observed until August 26. The second storm, Becky, began later that day and in less than 2 months all the remaining storms of the season had run their course with Ella, the last hurricane, becoming extratropical over the North Atlantic on October 23. The total of five tropical cyclones was the lowest number to occur since 1939 and was considerably below the annual average of eight for the period of record.

Damage from these tropical cyclones has been estimated at about $2 million, primarily from the effects of Alma and Daisy in New England. Loss of life was minimal and the likelihood is that no more than four fatalities can be attributed to these storms. There were 24 deaths associated with the heavy rains and winds that accompanied a northeaster that passed close to the New England coast and preceded hurricane Daisy. Of these deaths, one in Maine resulted from a wind-felled tree, one person was lost in Massachusetts when swept into the sea by a high wave, and the remainder were traffic deaths caused by rain or slippery pavements resulting from wet leaves. Authorities consider it unlikely that more than two of the above deaths could be considered a result of Daisy. Hurricane Ella caused two deaths in South Carolina.

Summaries of each tropical cyclone are given in table 1; tracks are indicated in figure 1; brief descriptions of each of the storms follow.

HURRICANE ALMA, AUG. 26-SEPT. 2, 1962

Hurricane Alma, the first tropical cyclone of the 1962 season, developed from an easterly wave which had been under observation for several days. What appeared to be a weak circulation center was first photographed over the eastern Atlantic by TIROS V on August 14. Subsequent westward movement at a speed of about 10 kt. brought the disturbance to the vicinity of 12.5°N., 51°W. on August 18 where a Weather Bureau research aircraft, on a routine flight to the Cape Verdes, located a weak center. Crossing the Windward Islands during August 20, the circulation moved west-northwest at 10 kt. and was again located by reconnaissance aircraft near 21°N., 69°W. on August 22.

This disturbance, located over the western Bahamas on the 26th, drifted northward along the east coast of Florida and during the forenoon of the 27th was located some 100 mi. east of Jacksonville, where the first signs of intensification were detected. During the afternoon of the 27th, vessels reported winds of 45 m.p.h. in squalls and the first tropical storm advisory was issued.

The storm moved northeastward and during the morning of the 28th passed over the Outer Banks of North Carolina. As it reached a position just northeast of Hatteras, winds had increased gradually in intensity and in the right semicircle were estimated at about 45 m.p.h. Onshore to the west of the center, maximum winds were generally lower, although a gust of 48 m.p.h. was observed at Hatteras and one of 53 m.p.h. was reported at Nags Head. Tides in general were about 2 ft. above normal in the Hatteras-Norfolk area with up to 3 ft. reported at Nags Head.

After moving northeastward from the area of the Capes, the storm increased in intensity and during the afternoon of the 28th, aircraft reconnaissance reports indicated the winds had reached hurricane force over a small area near the storm center with a maximum sustained wind speed of 92 m.p.h. reported.

Hurricane Alma was classified as a hurricane for only 12 hr. No well defined eye with wall cloud development was ever observed and radar tracking was difficult. Shortly after midnight on the 29th a lowest land-based pressure of 994 mb. (29.36 in.) was recorded on Nantucket Island. Prior to this time somewhat lower pressures of 988 mb. (29.18 in.) had been reported off the New Jersey coast.

Alma began to weaken to tropical storm strength at about the time the center passed some 60 mi. to the east of Nantucket. Massachusetts and Rhode Island coastal areas were buffeted by northerly gales gusting to 60 m.p.h. In the 24 hr. following her approach to Nantucket Island, Alma's advance averaged only about 5 m.p.h. with direction just slightly north of due east. This slowdown prolonged Alma's effect on southeastern New England and maintained a nearly continuous rainfall for more than 40 hr. Drought-stricken areas of coastal Massachusetts and Rhode Island received 2 to more than 3 in. of drenching rain that brought assurance of lasting relief to farmers and to those concerned with water supplies. More than an inch of rain also fell over other sections of southern New England except the western interior, over central and east coast Maine, and over an area extending from extreme northern New Hampshire to central Maine. Benefits derived from these rains more than offset property damage inflicted by the storm. Becoming extratropical on the 30th, Alma completed a clockwise loop near 40°N., 65°W. and dissipated south of Newfoundland on the 2d.

Tides were generally less than 2 ft. higher than normal and there was little flooding of lowlands and shore roads. Huge waves pounded exposed coastal installations inflicting widespread but mostly minor damage. Damage also resulted from wind and wave action which sank more than 100 small pleasure craft along the Massachusetts coast. A number of cabin cruisers and smaller craft were torn from their moorings and smashed against the rocks. Damage was estimated at less than $1 million.

TROPICAL STORM BECKY, AUG. 26-SEPT. 1, 1962

Becky probably developed from a disturbance that moved off the African coast during August 26. The first indications of this storm came on August 27 in the area between the Cape Verde Islands and the west coast of Africa. Contrary to the usual westward movement of cyclones originating in this area, Becky began a slow, generally northward movement. This northward movement was confirmed on the 29th when the storm was observed by the TIROS weather satellite. On the 30th reconnaissance aircraft indicated highest winds were about 60 m.p.h. near the center which, at this time, was located about 300 mi. south of the Azores. On September 1 Becky lost her tropical characteristics upon encountering an eastward moving cold front.

TROPICAL STORM CELIA, SEPTEMBER 11-21, 1962

This storm formed on an easterly wave over the tropical Atlantic on September 12. On the 11th photographs from the weather satellite TIROS V showed an unorganized cloud mass near 12°N., 40°W. indicating that a tropical cyclone might be in its formative stage. Additional confirmation came in an observation from the MORMAC-BAY at 18.4°N., 50.7°W. which reported an east wind of 35 kt., pressure 1014.9 mb., and an easterly swell of 13 ft. at 1200 GMT on September 12. As the MORMAC-BAY continued on a southeasterly course, pressure fell rapidly and at 2100 GMT on the 12th it had reached 1007.8 mb. and the wind had risen to 60 kt. from the east. Later in the day an additional photograph from TIROS V indicated a definite circulation pattern with spiral banks near 17.0°N., 47.5°W.

From the 12th to the 14th the storm moved on a west-northwesterly course at a forward speed of about 15 m.p.h. without much change in intensity. The first advisory on tropical storm Celia was issued by the San Juan Weather Bureau at 0000 GMT, September 13, and located the storm near 16.4°N., 48.6°W. with winds near the center estimated to be 55 to 60 m.p.h. A hurricane watch was issued for the Northern Leeward Islands at 1600 GMT September 13.

Navy reconnaissance located the eye of Celia at 1000 GMT, September 13, near 17.4°N., 52.5°W. The eye was poorly defined, maximum winds were 45 kt. and minimum sea level pressure was 995 mb. by dropsonde. This was the lowest pressure ever measured during the life cycle of Celia.

On the 14th reconnaissance reports indicated a turn to a more northwesterly direction and a slower rate of movement. Shortly after passing north of 20°N. on the evening of the 14th, the storm moved under the eastern edge of an upper air trough in the westerlies and temporarily dissipated into an area of squally weather. During the 15th the storm turned to a northerly direction and during the period September 17-20 moved through a clockwise loop in the area about 500 mi. east-southeast of Bermuda while increasing to storm force. Celia later became extratropical and moving northward dissipated in the area south of Newfoundland.

HURRICANE DAISY, SEPT. 29-OCT. 8, 1962

During the morning of September 28, photographs from TIROS VI provided the first indications of the possible development of a tropical cyclone in the area near 13.6°N., 47.0°W. Aircraft reconnaissance on the following day located a weak circulation centered at 15.0°N., 51.9°W. with maximum winds of about 25 m.p.h. On the 30th aircraft again located the circulation and a pressure eye at 16.2°N., 56.7°W. with highest winds 35 m.p.h. in the southern semicircle and a central pressure of 1009 mb. (29.80 in.).

On the morning of October 1 the storm turned to a more northerly course and slowed in its forward progress. Late on the 3d winds increased to hurricane intensity and by the morning of the 5th they had increased to 100 m.p.h. These high winds were maintained until the storm reached Nova Scotia. Over the cold waters of these latitudes it began to lose intensity, and on the 9th it was considered extratropical. The lowest pressure reported over land was 976 mb. (28.82 in.) at Yarmouth, Nova Scotia.

The highest winds in New England were experienced over coastal areas of Maine, especially over the central sections where speeds of 60 to more than 70 m.p.h. were reported on the 7th. At Southwest Harbor a pier was washed away and several wharves were lifted and lost. Hundreds of small boats were ripped from their moorings and sunk or smashed. Acre-size Mt. Desert Rock, 22 mi. offshore from Southwest Harbor, was pounded and washed by mountainous seas, some of which reportedly reached elevations 50 ft. above sea level. Damage was reported as the heaviest in the 115-year history of the Coast Guard Base located on the island. Damage was also considerable in Nova Scotia.

The actual effect of hurricane Daisy was greatly obscured by the excessive rains, strong winds, and tides associated with an extratropical coastal storm that first preceded and later coincided with Daisy in bringing heavy rain and flood damage to New England. It appears that the heaviest rainfall was produced by the coastal storm while the contribution from Daisy intensified and prolonged the floods. Rain fell almost continuously for periods up to 65 hr. Amounts of 10 to 12 in. were recorded in Middlesex and Essex Counties, Massachusetts, where the heaviest local flooding occurred. Preliminary estimates indicate that damage from the combined storms may have reached $10 million. Estimates of damage attributed directly to Daisy were $600,000 from surf and wave, mostly in Maine, and about $500,000 from wind for all of New England. Two deaths were directly caused by Daisy.

HURRICANE ELLA, OCTOBER 14-23, 1962

This hurricane had its inception as a weak low pressure area that was first observed on the morning of October 14 over the extreme southeastern Bahamas. At that time winds of about 30 m.p.h. were reported in the vicinity of the center. During the afternoon the center of the storm was located near 23.8°N., 73.1°W. drifting slowly northwestward at about 7 m.p.h. accompanied by squally winds of 30 to 35 m.p.h. in the northern semicircle. The lowest pressure near the center at this time was reported as 1008 mb. (29.77 in.).

As the storm moved northward on the 17th, winds increased to hurricane force. On October 18 Ella continued toward the north-northwest with gradual deepening. Central pressure dropped to 976 mb. and maximum winds were reported as 80 kt. A ship 90 mi. southeast of the center reported heavy, confused seas ranging up to 40 to 45 ft. From midday on the 19th until near noon on the 21st, winds near the center were reported at about 100 m.p.h.

Tides near Wilmington on the North Carolina coast were 2 to 3 ft. above normal or about 6 to 7 ft. above mean low water on the 18th and 19th. Maximum wave height was 6 to 7 ft. on the 18th and 19th. The lowest swell count was 5 to 6 per minute on the 18th and 19th. In Pamlico Sound tides were 2 to 3 ft. above mean water level from the morning of the 18th through the 19th with maximum of 3.1 ft.

The storm became extratropical late on the 21st near 41°N., 58°W., passed northeastward over eastern Newfoundland, and dissipated in an area of gale winds southeast of Greenland on the 23d.

The center of hurricane Ella did not approach within 200 mi. of the Carolina coast at any time, but the large size of the storm and the long period during which it lay within 200 to 300 mi. of the coast, resulted in considerable disruption to shipping schedules. Mild erosion from the moderate surf was experienced in coastal areas. Two men drowned in the loss of a small boat off Edisto Island, South Carolina.

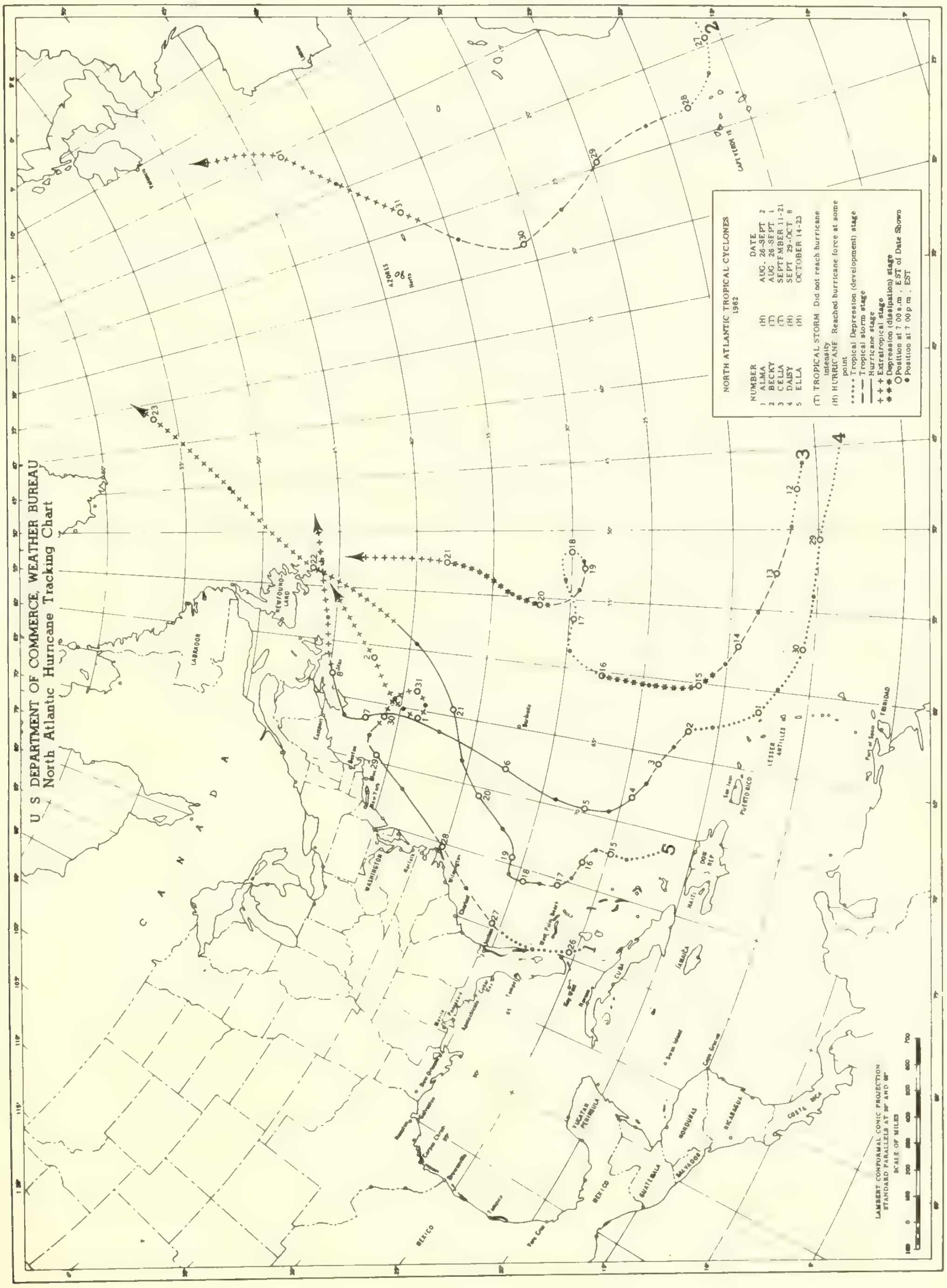

U S DEPARTMENT OF COMMERCE, WEATHER BUREAU
North Atlantic Hurricane Tracking Chart
NORTH ATLANTIC TROPICAL CYCLONES
1962
NUMBER
1 ALMA (H) AUG. 26-SEPT 2
2 BECKY (T) AUG 26-SEPT 1
3 CELIA (T) SEPTEMBER 11-21
4 DAISY (H) SEPT 29-OCT 8
5 ELLA (H) OCTOBER 14-23
DATE
(T) TROPICAL STORM Did not reach hurricane intensity
(H) HURRICANE Reached hurricane force at some point
••••• Tropical Depression (development) stage
— — Tropical storm stage
—— Hurricane stage
+ + + Extratropical stage
✱✱✱ Depression (dissipation) stage
○ Position at 7 00 a.m., EST of Date Shown
● Position at 7 00 p.m., EST
LAMBERT CONFORMAL CONIC PROJECTION
STANDARD PARALLELS AT 30° AND 60°
SCALE OF MILES
C A N A D A
LABRADOR
NEWFOUNDLAND
AZORES
CAPE VERDE IS
WASHINGTON
PUERTO RICO
LESSER ANTILLES
TRINIDAD
CUBA
JAMAICA
HAITI
DOM REP
YUCATAN PENINSULA
HONDURAS
NICARAGUA
COSTA RICA
GUATEMALA
SALVADOR
MEXICO
1
2
3
4
5

Fig. 1 North Atlantic Tropical Cyclones, 1962

NORTH ATLANTIC TROPICAL CYCLONES, 1962

TABLE 1

Storm name	Date	Area where first reported	Coast lines crossed	Highest wind speed reported	Lowest pressure reported	Place of dissipation reported	Intensity	Remarks
1. Alma	Aug. 26-Sept. 2	Western Bahamas	Outer Banks of North Carolina	Est. 92 m.p.h. by reconnaissance aircraft offshore northeast of the Carolina Capes.	988 mb. (29.18 in.) by aircraft off the coast of New Jersey	South of Newfoundland	Hurricane	No fatalities and only one injury. Damage estimated at less than $1 million, mostly along the coast of New England.
2. Becky	Aug. 26-Sept. 1	Off the African Coast east of the Cape Verde Islands	None	Est. 60 m.p.h. by reconnaissance about 300 mi. south of the Azores.	--	Eastern North Atlantic south of Ireland	Tropical Storm	Did no affect any land areas.
3. Celia	Sept. 11-21	Over the North Atlantic near 15°N., 45°W.	None	70 m.p.h. by the MORMACBAY near 17°N., 48°W., Sept. 12.	955 mb. (29.38 in.) recon. on the 13th	South of Newfoundland near 45°N., 52°W.	Tropical Storm	The entire track of the storm was over the North Atlantic Ocean with no damage to shipping reported.
4. Daisy	Sept. 29-Oct. 8	Over the North Atlantic near 14°N., 47°W.	Nova Scotia	Est. 100 m.p.h. by reconnaissance morning of October 5 near 27°N., 70°W.	965 mb. (28.50 in.) recon. on the 6th	South of Newfoundland near 45°N., 55°W.	Hurricane	Damage estimated in excess of $1 million in New England. Extensive damage in Nova Scotia. Two deaths in New England.
5. Ella	Oct. 14-23	Extreme southeastern Bahamas	Newfoundland	Est. 100 m.p.h. by reconnaissance from midday on the 19th until near noon on the 21st while moving northeastward some 300 mi. off the East Coast	960 mb. (28.35 in.) recon. on the 20th	Over the North Atlantic southeast of Greenland	Hurricane	Ella resulted in considerable disruption to shipping schedules. Some mild erosion along the East Coast from moderate surf. Two men drowned in the loss of a small boat off Edisto Island, S.C.

NORTH ATLANTIC TROPICAL CYCLONES FOR PAST YEARS

Frequency of Tropical Cyclones (Including Hurricanes) by Months and Years

		May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Total
1886			3	1	2	2	2			10
1887		1		2	2	3	6	1	2	17
1888			1	1	2	2	1	3		10
1889		1	1		1	5	1			9
1890					1					1
1891				1	2	3	4	1		11
1892			1		1	4	3			9
1893			1	1	5	3	1	1		12
1894					2	1	3			6
1895					2	1	3			6
1896				1	1	2	2			6
1897					1	2	2			5
1898					2	5	2			9
1899				1	2	1	2			6
1900					1	3	3			7
1901			1	2	2	3	2			10
1902			2			1	1	1		5
1903				1	1	4	2	1		9
1904			1			1	3			5
1905						3	2			5
1906			2		1	3	4	1		11
1907			1			2	1			4
1908	Mar. 1			1	1	3	2			8
1909			2	2	2	2	1	1		10
1910					1	2	1			4
1911					2	1	1			4
1912			1	1		1	2	1		6
1913			1		1	1	1			4
1914						1				1
1915				1	2	2				5
1916			1	2	3	4	3	1		14
1917					2	1				3
1918					3	2				5
1919				1		1		1		3
1920						4				4
1921			1			3	2			6
1922			1			1	2			4
1923					1	1	5			7
1924			1		2	2	2	1		8
1925						1		1		2
1926				1	2	5	2	1		11
1927					1	3	3			7
1928					2	3	1			6
1929			1			1	1			3
1930					2					2
1931			1	1	2	3	1	1		9
1932		1			3	3	3	1		11
1933		1	1	3	7	5	3	1		21
1934		1	1	1	2	2	3	1		11
1935					3	1	2			6
1936			3	2	6	4	1			16
1937				1	2	6				9
1938					3	1	3	1		8
1939			1		1	1	2			5
1940		1			3	2	2			8
1941						4	2			6
1942					3	3	3	1		10
1943				1	2	4	3			10
1944				3	2	4	2			11
1945			1	1	4	3	1			10
1946			1	1	1	1	2			6
1947				1	2	3	3			9
1948		1		1	2	3	1	1		9
1949					3	7	2	1		13
1950					4	3	6			13
1951		1			3	4	2			10
1952	Feb. 1				2	2	2			7
1953		1			3	4	4	1	1	14
1954			1	1	2	4	1	1	1	11
1955				1	4	5	2			12
1956			1	1	1	4	1			8
1957			2		1	4	1			8
1958			1		4	4	1			10
1959		1	2	2	1	3	2			11
1960			1	2	1	3				7
1961				1		6	2	2		11
1962					2	2	1			5
Totals	Feb. Mar. 1 1	10	40	44	137	207	143	28	4	615

Frequency of Tropical Cyclones Reaching Hurricane Intensity by Months and Years

		May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Total
1886			2	1	2	2	1			8
1887				1	2	3	2	1	1	10
1888			1		2		1	1		5
1889		1			1	3				5
1890					1					1
1891				1	2	3	2			8
1892					1	2	1			4
1893			1	1	5	3				10
1894					1	1	3			5
1895					1		1			2
1896				1	1	2	2			6
1897					1	1				2
1898					2	2				4
1899				1	2	1	1			5
1900					1	2				3
1901				1	2					3
1902			1			1	1			3
1903				1	1	3	2	1		8
1904						1	1			2
1905							1			1
1906			1		1	2	2			6
1907										0
1908	Mar. 1			1		2	1			5
1909				1	1	1	1			4
1910						2	1			3
1911					2	1				3
1912						1	2	1		4
1913			1		1	1				3
1914										0
1915					2	2				4
1916			1	2	3	2	2	1		11
1917					1	1				2
1918					2	1				3
1919						1				1
1920						4				4
1921			1			2	1			4
1922						1	1			2
1923					1	1	1			3
1924					2	1	1	1		5
1925								1		1
1926				1	2	4	1			8
1927					1	3				4
1928					2	1	1			4
1929			1			1	1			3
1930					2					2
1931						2				2
1932					3	1	1	1		6
1933			1	1	3	3	1			9
1934			1	1	1	1	1	1		6
1935					2	1	2			5
1936			1	1	3	2				7
1937						3				3
1938					2	1				3
1939					1		2			3
1940					3	1				4
1941						3	1			4
1942					3			1		4
1943				1	1	2	1			5
1944				2	1	3	1			7
1945			1		1	1	1			4
1946				1		1	1			3
1947					2	1	2			5
1948					1	3	1	1		6
1949					2	4	1			7
1950					4	3	4			11
1951		1			2	3	2			8
1952					2	2	2			6
1953					2	3	1			6
1954			1		2	3	1		1	8
1955					3	5	1			9
1956				1	1	1	1			4
1957			1			2				3
1958					3	3	1			7
1959			1	2		3	1			7
1960				1	1	2				4
1961				1		5	1	1		8
1962					1	1	1			3
Totals	Mar. 1	2	17	25	101	134	67	12	2	361

NORTH ATLANTIC TROPICAL CYCLONES FOR PAST YEARS – CONT'D

TOTAL NUMBER OF TROPICAL CYCLONES, LOSS OF LIFE AND DAMAGE

	Total Number Tropical Cyclones*		Total Number Hurricanes		Loss of Life		Damage by Categories**	
Year	All Areas	Reaching U.S. Coast	All Areas	Reaching U.S. Coast	Total All Areas	United States	Total All Areas	United States
1886	10	7	8	6				
1887	17	4	10	3				
1888	10	6	5	3				
1889	9	4	5	2				
1890	1	0	1	0				
	47	21	29	14				
1891	11	4	8	2				
1892	9	3	4	0				
1893	12	7	10	6				
1894	6	3	5	2				
1895	6	4	2	1				
	44	21	29	11				
1896	6	4	6	4				
1897	5	4	2	1				
1898	9	6	4	3				
1899	6	4	5	[illegible]				
1900	7	3	3	1		6000		7
	33	21	20	12				
1901	10	6	3	2		10		6
1902	5	3	3	1		#		#
1903	9	2	8	2		9		6
1904	5	3	2	2		#		6
1905	5	2	1	0		#		#
	34	16	17	7				
1906	11	6	6	4		285		7
1907	4	3	0	0		#		#
1908	8	2	5	1		#		#
1909	10	7	4	3		404		7
1910	4	2	3	2		13		6
	37	20	18	10				
1911	4	2	3	2		17		6
1912	6	4	4	2		12		6
1913	4	3	3	2		#		#
1914	1	1	0	0		#		#
1915	5	4	4	3		600		8
	20	14	14	9				
1916	14	8	11	6		107		7
1917	3	1	2	1		5		5
1918	5	2	3	1		34		6
1919	3	2	1	1		287		7
1920	4	3	4	2		2		6
	29	16	21	11				
1921	6	2	4	2		5		6
1922	4	1	2	0		0		#
1923	7	4	3	2		0		4
1924	8	3	5	2		2		3
1925	2	2	1	1		6		3
	27	12	15	7				
1926	11	4	8	4		269		8
1927	7	1	4	0		0		#
1928	6	3	4	2		1836		7
1929	3	2	3	2		3		6
1930	2	1	2	0		0		2
	29	11	21	8				
1931	9	2	2	0		0		#
1932	11	5	6	2		0		#
1933	21	7	9	5		63		7
1934	11	5	6	3		17		6
1935	6	2	5	2		414		7
	58	21	28	12				
1936	16	7	7	3		9		6
1937	9	4	3	0		0		4
1938	8	4	3	2		600		8
1939	5	3	3	1		3		3
1940	8	3	4	2		51		6
	46	21	20	8				
1941	6	4	4	2		10		7
1942	10	3	4	2	17	8	7	7
1943	10	4	5	1	19	16	7	7
1944	11	4	7	3	1076	64	8	8
1945	10	5	4	3	29	7	8	8
	47	20	24	11				
1946	6	4	3	1	5	0	7	7
1947	9	7	5	3	72	53	8	8
1948	9	4	6	3	24	3	7	7
1949	13	3	7	2	4	4	8	8
1950	13	4	11	3	27	19	7	7
	50	22	32	12				
1951	10	1	8	0	244	0	7	6
1952	7	2	6	1	16	3	6	6
1953	14	6	6	2	3	2	7	7
1954	11	4	8	3	720+	193	9	9
1955	12	5	9	3	1518+	218	9	9
	54	18	37	9				
1956	8	2	4	1	76	21	8	7
1957	8	5	3	1	475	395	8	8
1958	10	1	7	0	49	2	7	7
1959	11	7	7	3	57	24	7	7
1960	7	5	4	2	185	65	8	8
	44	20	25	7				
1961	11	3	8	2	299	46	8	8
1962	5	1	3	0	4	4	6	6
Total	615	278	361	150				
Median	[illegible]	4	4	2				

** The Weather Bureau has for some time recognized the fact that without detailed expert appraisal of damage all figures published are merely approximations to fact. Since errors in dollar estimates vary in proportion to the total damage, storms are placed in categories varying from 1 to 9 as follows:

1 Less than $50
2 $50 to $500
3 $500 to $5000
4 $5000 to $50,000
5 $50,000 to $500,000
6 $500,000 to $5,000,000
7 $5,000,000 to $50,000,000
8 $50,000,000 to $500,000,000
9 $500,000,000 to $5,000,000,000

Blank spaces indicate no figures available.

* Including hurricanes.
# Not reported in literature, believed minor.
+ Additional deaths for which figures are not available.

TROPICAL CYCLONES IN THE EASTERN NORTH PACIFIC, 1962

Walter E. Benkman
U. S. Weather Bureau, San Francisco, California

Eight tropical cyclones were known to have occurred in the eastern North Pacific Ocean during the 1962 season. This is about the seasonal average number of storms. Five of these cyclones, including Valerie, Willa, Bernice, and Claudia, were detected and quite likely formed along or near the intertropical convergence zone between 15° and 20° N., and 104° and 111°W. Two of the storms attained hurricane intensity, the first of the season in June and the last in October. The two hurricanes had quite similar characteristics in that they recurved northward near or into the Gulf of California and were the only storms to move into Mexico.

Since Bernice posed a potential threat to the southern California coast, there was one survey flight of this storm by the 9th Weather Reconnaissance Group of the Air Force. In addition, 11 other flights were made during the period but not specifically on tropical cyclone reconnaissance.

TIROS weather satellite pictures were again very helpful, this being the second season that they have scanned this area. Fourteen photographs of vortices were received with only short-lived Valerie escaping TIROS' surveillence. In some cases TIROS was more helpful than others, depending primarily upon whether the picture was "definite" or not and whether or not surface ship reports were received in the suspected area.

Two excellent but much delayed reports were received later by mail and revealed the existence of tropical storms where synoptic data were inconclusive. One was from the GOLDEN STATE on August 20, the other from the RICHFIELD on September 30. It cannot be emphasized too strongly how important it is that significant weather reports be relayed immediately when they are of their greatest value.

The season ended with a vengeance as hurricane Doreen, detected October 1, developed into the year's most severe cyclone. Enough ship reports were received during this hurricane's intense stage to further confirm the viciousness of these relatively small eastern North Pacific tropical cyclones. The SANTA ADELA reported winds of 90 kt. with gusts of 100-110 kt. and high seas as she passed close to Doreen. The captain and second mate reported this storm as the worst they had ever encountered in some 30 years at sea. Aside from reports of small boats in trouble, no definite information was received of damage or casualties either at sea or on land. All dates and times in the test are given for the Greenwich meridian, and all distances are in nautical miles.

HURRICANE VALERIE, JUNE 24-25

The intertropical convergence zone with a low pressure area was located southwest of Acapulco, Mexico, on the 23d. The usual rain squalls and seas of 9-10 ft. were widespread. The first indications that a tropical storm had formed were the appearance of several reports of south to southeast winds of 30-40 kt. along the Mexican coast near and north of Acapulco. A TIROS weather satellite passed over the area at this time but gave no substantiating evidence of a tropical vortex. About 100 mi. west of Mazatlan at 2100 on the 24th a report from the MORMACSURF of southeast winds of 60 kt., squalls, a falling pressure tendency, and 11-ft. seas led to a change of storm to hurricane warnings. No further reports were received to indicate cyclonic circulation but it is very likely that rapid weakening of the hurricane took place as it moved inland near Mazatlan where the pressure had been falling steadily to near 1000 mb.

TROPICAL STORM WILLA, JULY 7-10

For 2 days there was a low pressure area on the intertropical convergence zone some 250 mi. southwest of Mazatlan, Mexico. At 2100 on the 7th, the SHORT HILLS reported southeast winds of 45 kt., 14-ft. seas, and 1007.8 mb. pressure at 19.8°N, 109.8°W. This was the highest reported wind in Willa's brief history. Three hours later the SHORT HILLS' wind was south 35 kt., 14-ft. seas, heavy rain, and a rising pressure tendency indicating Willa passed to the southwest. No other reports were received until 1800 on the 9th when a TIROS satellite located a "well defined center with cloud mass 300 mi. most northwest quadrant." Twenty-four hours later, 1800 on the 10th, TIROS again reported a vortex with the "center not as definite as yesterday due to high nadir" (camera looking toward horizon). With the trend as indicated by this report and subsequent ships reporting east winds some 200 mi. north of the extrapolated storm positions, it was concluded that the storm weakened rapidly and dissipated as it moved over cooler waters.

TROPICAL STORM AVA, AUGUST 16-20

A report from the NAESS CLARION of southeast winds of 40 kt., rough seas, rain squalls, and a low barometer of 1002 mb. at 1200 on the 16th marked the first known location of Ava. This was near 15°N., 113°W. or about 250 mi. southwest of Socorro Isle. There had been a complete lack of data in the area prior to this report. A TIROS satellite picture at 2100 on the 17th and a report from the STEEL EXECUTIVE at 0000 on the 18th located and revealed Ava moving to the northwest at 8 kt. Another TIROS fix at 2000 on the 19th showed Ava tracking more to the north-northwest, and again a fair fix by TIROS at 2100 on the 20th showed little movement. No further reports were received and rapid dissipation was assumed.

TROPICAL STORM, AUGUST 20-22

At 2116 on the 20th a definite vortex appeared at the edge of a TIROS photograph near 19°N., 133°W. and a second photograph of a "well defined vortex at 2036 on the 21st, central overcast area 5 degrees in diameter and a tail about 5 degrees to the east." There had been no ship reports within 200 mi. of the first TIROS location so no separate advisory was issued, but the suspicious area was mentioned in the last advisory on tropical storm Ava. In the subsequent 36 hr. the KAICHANG and the GOLDEN STATE moved through the suspect area and passed within 30 or 40 mi. of each other, traveling west and east, respectively. The reports received from these ships gave no indication of a tropical storm so an advisory was withheld. Some time later a letter was received from the 3d mate of the GOLDEN STATE saying that the advisory describing TIROS' observation had been received and included the following remarks:

"On the midwatch 8/21/62 passed through a very low pressure area. Barometer dropped from 29.82 to 29.60 in a period of 1 hour. Winds encountered reached a maximum of force 8. This was predicted by satellite TIROS indicating a low pressure circulation in that area. Position of which was highly accurate. Force 8 winds lasted for a period of about 1 hour. Would estimate that the depression was of a width of approximately 20 mi. as winds resumed a normal trade aspect after passing through the area."

Although the direction of the force 8 winds was missing, a re-evaluation of this information, in conjunction with the reports from the GOLDEN STATE and the HAICHANG, is in definite agreement with the 3d mate's estimate of the storm's size.

TROPICAL STORM BERNICE, SEPTEMBER 1-6

During the last days of August a large area, extending from the Mexican coast westward some 1,000 mi., had suspiciously low pressures. The intertropical convergence zone bisected this area near Acapulco and Socorro Isle. At 1800 on the 1st several ships reported winds, pressures, and weather locating tropical storm Bernice at 19.2°N., 107.5°W., some 180 mi. west of Manzanillo, Mexico. The PRESIDENT McKINLEY reported highest winds of 40 kt. and the MATHILDA reported lowest pressure of 998.6 mb. An unusually good data coverage plus the presence of the intertropical convergence zone indicates that this was quite likely Bernice's birthday. An excellent sequence of reports from the TEXAN, giving a lowest pressure of 991.5 mb. and winds of force 10, combined with a TIROS picture placed Bernice some 100 to 150 mi. south of the southern tip of Baja California on the morning of the 2d. The highest wind reported was 60 kt. by the EBERHART ESSBERGER and the lowest pressure was 985.5 mb. by the HAMBURG MARU. At 1700 on the 3d an Air Force Reconnaissance flight reported a "circulation eye 20 mi. diameter, wall cloud open east to south and 60 kt. winds south quad" 140 mi. west-southwest of La Paz. Soon thereafter Bernice began recurving from a northwest course to a northerly one, and slowed and weakened to finally dissipate about 50 mi. west-northwest of Magdalena Bay, Baja California, on the 6th.

TROPICAL STORM CLAUDIA, SEPTEMBER 20-24

For 4 days there was a weather pattern off the Mexican coast similar to that which prevailed before tropical storm Bernice's appearance; i.e., low pressures, intertropical convergence zone, and thunderstorms. At 2200 on the 19th a TIROS satellite indicated a large cloud mass with an indefinite center at 15°N., 106°W. At 1800 of the 20th a report of heavy rain, 35-kt. winds from the southeast, and 999.7 mb. pressure from the MAUMEE, plus other peripherial data, located Claudia at 19.8°N., and 109.6°W., about 280 mi. west of Manzanillo. A northwest track was maintained west of Baja California with another TIROS picture locating the storm at 26°N., 114.5°W. It was near here that Claudia weakened and slowed as she recurved northward passing east of Point San Eugenia and dying.

YEAR 1962

TROPICAL STORM, SEPTEMBER 26-30

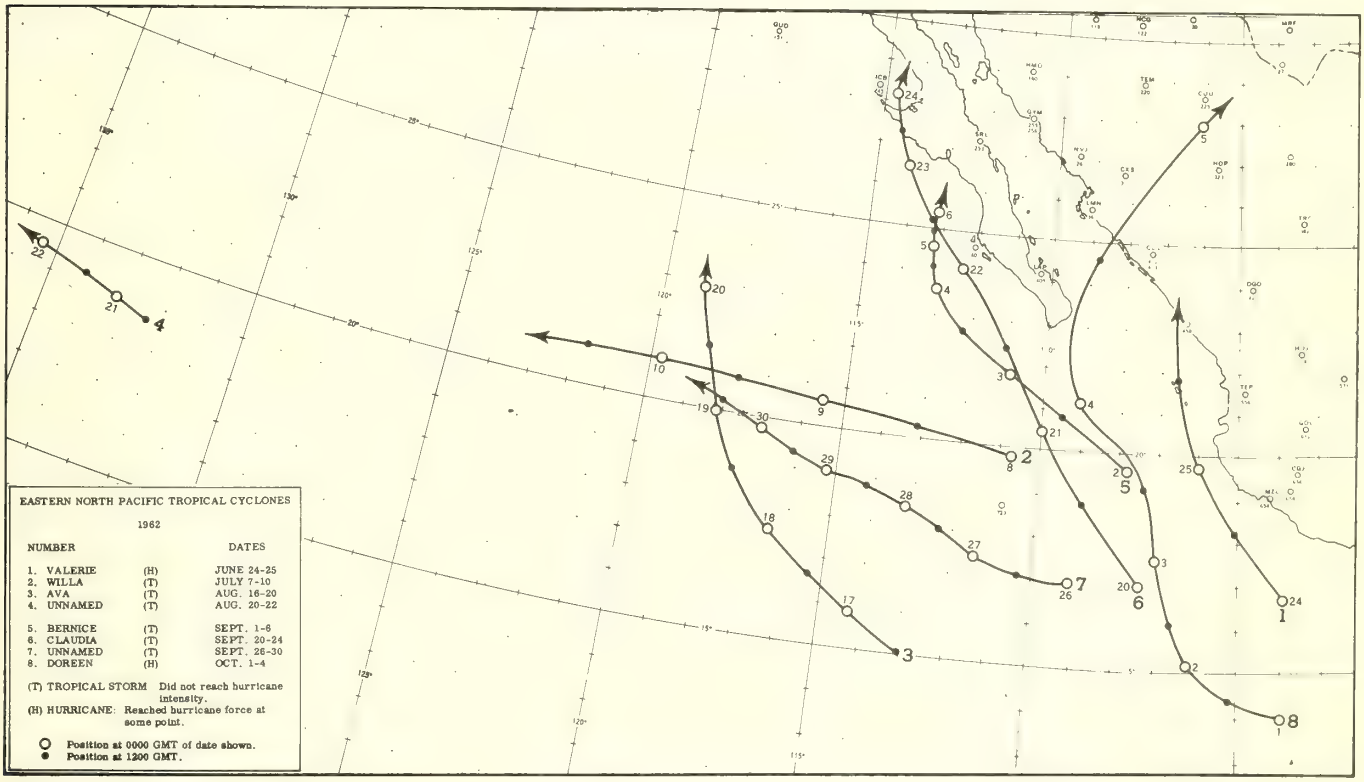
A westward moving area of low pressure passed south of Socorro Isle on the 26th and 27th. At 0000 of the 28th an Air Force reconnaissance located a weak cyclonic wind field at the 300 mb. level near 17°N., 113°W. At 1800 of the 28th TIROS weather satellite reported an eye at 18.3°N., 115.3°W., and at 1702 of the 29th another photograph of "pinwheeling bands" at 18°N., 117°W. An Air Force reconnaissance revealed a weak cyclonic circulation of 10-kt. winds near 18°N., 118°W. at 2000 of the 29th. Again TIROS located a vortex at 20°N., 119°W. at 1740 of the 30th. During the above sequence of reports a request for special reports from shipping in the area was in effect. Surface reports received were few, at times 12 hr. without a single report, and those that did report gave no further indication of the intensity of the depression. Mention of the area was included in the Marine broadcast. At a later date a report was received by mail from the RICHFIELD of sustained 60-kt. winds and 24-ft. seas from the north-northeast, heavy rain and pressure of 1001.4 mb. near 20.4°N., 117.7°W. This storm appeared to have formed some 250 to 300 mi. southeast of Socorro Isle and moved west-northwest to northwest at 5 kt. It is likely that as a depression it intensified into a storm southwest or west of Socorro Isle and dissipated as it moved over colder waters west of 120°W.

HURRICANE DOREEN, OCTOBER 1-4

A report of northeast winds 30 kt., 1003-mb. pressure, and rough easterly seas from the LA ESTANCIA at 14.6°N., 104.3°W. at 0000 of the 1st, gave the first indication of tropical storm Doreen. An excellent series of four reports from the BJORGHEIM near 14°N., 104°W. to 106°W. were received at 0700 through 1630 on the 1st. The 1630 report at 14.3°N., 105.9°W. showed west winds 40 kt., 989.9-mb. pressure. A TIROS weather satellite then reported a vortex at 16°N., 107°W. at 1600 of the 2d. No further pinpointing reports were received except that generally a north to northwest movement was taking place as evidenced by Mexican coastal shipping reports with southeast winds of 35-40 kt. and low pressures. As Doreen neared the Gulf of California reports of 50-kt. winds and still lower pressures suggested intensification and this was confirmed at 2100 of the 3d when the storm warnings were increased to hurricane warnings upon receipt of a report from the SANTA ADELA of east winds of 90 kt. and a pressure of 985.4 mb. The SANTA ADELA's lowest pressure of 980.4 mb. was reached at 21.3°N., 109°W. at 2200 and then rose to 984.4 mb. with northeast winds of 90 kt. at 0000 of the 4th. Doreen was moving to the northwest at the time but recurved to the north as it approached the southern tip of Baja California at 0600 of the 4th. It continued recurving to the northeast while accelerating to about 18 kt. and crossed the Mexican coast between Los Mochis and Culiacan about 1500 of the 4th. As Doreen weakened over Mexico it was still identifiable at 0000 of the 5th near Chihuahua, Mexico, and probably dissipated in the area north of there. Rain carried at least as far as Amarillo, Texas, at 1200 of the 5th.

EASTERN NORTH PACIFIC TROPICAL CYCLONES, 1962

Storm Name	Date	Area Where First Reported	Coast Lines Crossed	Highest Wind Speed Reported	Lowest Pressure Reported	Place of Dissipation	Intensity	Remarks
1. VALERIE	JUNE 24-25	15.5°N., 104°W.	Near Mazatlan, Mexico	MORMACSURF, 60 kt., 242100Z	1003.4 mb.	Near Mazatlan	Hurricane	
2. WILLA	JULY 7-10	19.6°N., 110.3°W.	None	SHORT HILLS, 45 kt., 072100Z	1007.8 mb.	Near 21°N., 123°W.	Tropical Storm	2 TIROS
3. AVA	AUGUST 16-20	15°N., 113°W.	None	NAESS CLARION, 40 kt., 161200Z	1002.0 mb.	23°N., 119°W.	Tropical Storm	3 TIROS
4. TROPICAL STORM	AUGUST 20-22	19°N., 133°W.	None	GOLDEN STATE, 34-40 kt.	1002.4 mb.	Near 19.5°N., 135°W.	Tropical Storm	First located by TIROS. Again 24 hr. later.
5. BERNICE	SEPTEMBER 1-6	19.2°N., 107.5°W.	None	EBERHART ESSBERGER, 60 kt., 030000Z	HAMBURG MARU, 985.5 mb.	20.2°N., 113.1°W.	Tropical Storm	1 TIROS, 1 reconnaissance
6. CLAUDIA	SEPTEMBER 20-24	19.8°N., 109.6°W.	Near Pt. San Eugenia	ESTELLA, 55 kt., 211800Z	STROMGUNHILD, 992.9 mb.	Near Pt. San Eugenia	Tropical Storm	2 TIROS
7. TROPICAL STORM	SEPTEMBER 26-30	20.4°N., 117.7°W.	None	RICHFIELD, 60 kt.	1001.4 mb.	Near 21°N., 120°W.	Tropical Storm	3 TIROS 2 reconnaissance
8. DOREEN	OCTOBER 1-4	14°N., 104°W.	Between Los Mochis and Culiacan	SANTA ADELA, 90 kt., gusts 100-110 kt., 032100Z 040000Z	980.4 mb. 032200Z	North Central Mexico	Hurricane	1 TIROS, most severe of season


EASTERN NORTH PACIFIC TROPICAL CYCLONES
1962
NUMBER DATES
1. VALERIE (H) JUNE 24-25
2. WILLA (T) JULY 7-10
3. AVA (T) AUG. 16-20
4. UNNAMED (T) AUG. 20-22
5. BERNICE (T) SEPT. 1-6
6. CLAUDIA (T) SEPT. 20-24
7. UNNAMED (T) SEPT. 26-30
8. DOREEN (H) OCT. 1-4
(T) TROPICAL STORM Did not reach hurricane intensity.
(H) HURRICANE: Reached hurricane force at some point.
○ Position at 0000 GMT of date shown.
● Position at 1200 GMT.
25°
20°
15°
130°
125°
120°
115°

TYPHOONS OF THE WESTERN NORTH PACIFIC, 1962

Based on Material Prepared by the Joint Typhoon Warning Center,
Fleet Weather Central, Guam, Mariana Islands

During 1962 warnings were issued by the Joint Typhoon Warning Center, Fleet Weather Central for 39 tropical cyclones in the western North Pacific from 180° longitude to the Asiatic mainland, north of the equator. Of these 39 cyclones, 24 were of typhoon intensity, 6 became tropical storms, and 9 required tropical depression warnings. The tracks of the typhoons are shown in figure 1, and pertinent information for each typhoon is given in the table. Tracks of tropical storms and tropical depressions are shown in figure 2. In the narrative summary and in the accompanying table and figures, typhoon intensity indicates wind speeds equal to or greater than 64 kt.; tropical storm intensity, wind speeds from 34 to 63 kt.; and tropical depression intensity, wind speed less than 34 kt. All distances are in nautical miles and all times in Greenwich Mean Time.

The extent of property damage and loss of life due to these tropical cyclones in the western North Pacific in 1962 is unknown. However, at least 1,700 persons are known dead, and over $325,000,000 damage to property has been reported. A large portion of the fatalities occurred in tropical storm Harriet which struck the Thailand coast in late October.

The 24 typhoons occurring in 1962 is the largest number of record for the western North Pacific for a calendar year, exceeding the previous record of 21 typhoons in 1952. The annual average in the past 10 years is about 18 typhoons.

The two most intense typhoons were Ruth and Karen both with 160-kt. maximum sustained winds. Karen was also the most destructive, striking a devastating blow at Guam. Wanda, although not as intense as many of the other typhoons, caused 434 deaths (plus 41 persons missing) when it hit the heavily-populated area of southeast China around Hong Kong. Harriet, a tropical cyclone of storm intensity, caused about twice that many fatalities along the Thailand coast of the Malay Peninsula. Emma and Karen persisted for the longest period, each being accompanied by typhoon winds for a period of 9 1/2 days. Short summaries of the individual typhoons based on the table and the preliminary advisories follow:

GEORGIA, APRIL 16-24

Typhoon Georgia developed tropical depression strength near 10°N., 140°E. on the 16th. During the following day the depression remained nearly stationary while intensifying to the tropical storm stage. Georgia reached typhoon strength early on the 18th near 10°N., 142°E. It intensified to a sustained wind of 130 kt. on the 20th while moving northward and later northeastward. On the 23d the intensity of the cyclone dropped to tropical storm strength when near 37°N., 153°E., and a weaker secondary LOW developed within the circulation south of the primary center. Still carrying gale force winds, but now considered extratropical, the storm continued north-northeastward passing southeast of the Kuril Islands to near 48°N., 158°E. by noon on the 25th. Here it encountered blocking and became quasi-stationary while filling slowly during the next 3 to 4 days. The following vessels were among those reporting gale force winds within Georgia's circulation: BLACKHAW (42 kt.), CONSTITUTION STATE (40 kt.), and KENAI PENINSULA (50 kt.).

HOPE, MAY 16-22

Typhoon Hope had its first advisory issued early on the 16th when located near 10°N., 128°E. with winds already at tropical storm strength. Winds were in the 40-50 kt. range as the storm curved northwestward and northward crossing Samar and Leyte on the 17th and southeastern Luzon on the 18th. Late on the 19th Hope intensified to typhoon strength near 20°N., 125°E. By now the typhoon was moving northeastward, and early on the 21st near 23°N., 131°E. maximum intensity of 85-kt. winds was reached. The cyclone now began slowly losing strength, dropping to tropical storm stage later on the 21st and tropical depression stage at noon of the 22d near 29°N., 134°E. On the 24th it became an extratropical LOW near the south coast of Honshu. Much needed rain fell over Japan from this storm. The vessel LESLIE LYKES reported 35-kt. winds near 20°N., 127°E. on the 20th.

IRIS, MAY 26-30

Typhoon Iris appeared at noon of the 26th near 10°N., 129°E. as a tropical depression. Early on the 27th a reconnaissance flight into the storm, then located at 13°N., 126°E., determined that Iris had reached the typhoon stage with maximum sustained winds estimated at 65 kt. Iris weakened rapidly thereafter, and the reconnaissance flight, late on the 28th located the storm at 17°N., 125°E. with winds of only 25 kt. The final advisory was issued early on the 30th placing Iris at 18°N., 125°E. as a dissipating tropical depression.

JOAN, JULY 7-11

Typhoon Joan formed off an easterly wave on the 7th near 21°N., 130°E. Winds were already of tropical storm strength at this time. The storm was moving in a generally northwestward direction. Around noon of the 8th typhoon stage was reached near 23°N., 128°E., and a maximum intensity of 80 kt. was estimated during reconnaissance flights into the storm on the 9th. Joan recurved late on the 9th off the China coast near Shanghai, but being a storm of small diameter, its effects were not felt over land. Now moving northeastward, Joan weakened and crossed Korea on the 10th as a tropical storm. The final warning was issued in the morning hours on the 11th giving the now extratropical storm's position as 41°N., 136°E.

KATE, JULY 18-24

Typhoon Kate, first noted as a tropical depression northeast of Luzon on the 18th, became a tropical storm early on the 19th. Kate moved west-northwestward about 50 mi. off the north coast of Luzon. Heavy rains drenched Luzon as far south as Manila causing extensive flooding in many areas. Early on the 20th Kate became a typhoon. It completed a small loop northwest of Luzon and headed generally northward toward Taiwan with the winds reaching a peak intensity of 85 kt. on the 22d as Kate approached the island. Torrential rains flooded large areas of the southern and southeastern portions of Taiwan including the island's second largest city, Kaohsiung. Kate weakened to tropical storm intensity on crossing Taiwan and curved northwestward over northern Taiwan Strait, crossing inland north of Foochow. Over land the storm weakened rapidly and the last advisory was issued early on the 24th placing the depression near 29°N., 119°E. The NETTLE and the SMITH ADVENTURER were within the area of gale force winds from the 20th through the 22d off the north coast of Luzon.

LOUISE, JULY 20-28

Typhoon Louise's existence was first suspected early on the 20th based among other things on reports of 45-kt. winds from the FLYING DRAGON at 20°N., 161°E. in the waters between Wake Island and the Marianas. It was positioned by a reconnaissance aircraft early on the 21st near 23°N., 157°E. with winds of tropical storm strength. Louise moved northward to near 26°N., 155°E. by early on the 22d and then turned westward while intensifying to typhoon strength. The maximum intensity of the cyclone was reached on the 22d, 23d, and 24th as sustained winds were 80 kt. while Louise was heading westward and northwestward toward southern Japan. On the 27th the storm entered southern Honshu and recurved northeastward along the interior of the island while weakening rapidly. A dredge sank and a smaller cargo vessel was damaged at Kobe. Minor flooding and landslides occurred elsewhere. The vessels FLYING DRAGON and CUYAMA VALLEY recorded 40-50-kt. winds near Louise on the 21st and 22d.

NORA, JULY 26-AUGUST 4

Typhoon Nora was tracked as a tropical depression from the 26th to the 28th as it was moving north-northwestward from 15°N., 135°E. to 18°N., 132°E. Near this latter location early on the 29th it was upgraded to a tropical storm with winds estimated at 35 kt. Although a weak storm Nora, nevertheless, was very extensive in area and the oval-shaped eye measured 60 by 150 mi. Early on the 30th near 22°N., 130°E. the typhoon stage was reached. Continuing northwestward and passing south of Okinawa around noon on the 31st, Nora moved into the Yellow Sea, buffeting the Shanghai area with gale force winds on the 1st. Maximum sustained winds were then clocked at 75 kt. near the center of this large storm. The heavier rains fell to the northeast of the center over the Korean Peninsula. Recurving off Shanghai, Nora moved northeastward across central Korea late on the 2d while weakening. Late on the 3d it was considered extratropical over southern Hokkaido. Vessels which reported gale force winds in the fringes of this large cyclone from the 29th through the 2d include the BARRETT (37 kt.), ESSO JACKSONVILLE (40 kt.), HAROLD H. HELM (50 kt.), EFFIE MAERSK (55 kt.), PRESIDENT JEFFERSON (50 kt.), PETROLENE (40 kt.), PIONEER VALLEY (35 kt.), and SUNNY LADY (60 kt.).

OPAL, JULY 30-AUGUST 6

Typhoon Opal began as a tropical depression early on July 30 near 9°N., 151°W. It drifted slowly west-northwestward with winds in the 20-30-kt. range, until at 12°N., 138°E. early on the 2d it intensified rapidly to typhoon strength. Opal turned to a slightly more northwesterly course aimed at Taiwan while continuing to gain intensity. At noon on the 5th the typhoon was just off the east coast of northern Taiwan with maximum sustained winds of 150 kt. in a narrow band near the center. Heavy damage was sustained with 75 people killed in Ilan County on the northeast coast. This was in the same general area hit by Pamela last year. Taipei also was buffeted with strong winds but damage here was mostly light. Opal continued northwestward across the Taiwan Strait still carrying typhoon winds and crossed inland north of Foochow. Over land it weakened and became extratropical. It recurved northward and northeastward over the Shantung Peninsula and the Yellow Sea on the 7th and over northern Korea and the Siberian coast near Vladivostok to Hokkaido by the 9th. Vessels encountering gales near Opal from the 3d through the 5th include the BONNEVILLE (70 kt.), HOEGH CAIRN (40 kt.), P & T EXPLORER (35 kt.), SUNNY LADY (40 kt.), and WORLD TONQUIL (40 kt.).

PATSY, AUGUST 6-11

Typhoon Patsy was tracked as a tropical depression from early on the 6th when a reconnaissance aircraft reported it near 10°N., 137°E. Late this same date another reconnaissance flight determined that winds had now increased to tropical storm strength when near 11°N., 132°E. Patsy continued to intensify while moving mostly eastward, and late on the 7th it was classified as a typhoon when near 11°N., 125°E. Moving across the central Philippines with maximum sustained winds reaching 60 kt., Patsy emerged in the South China Sea curving west-northwestward toward Hainan. Maximum intensity was reached late on the 8th and on the 9th west of Luzon when winds reached 65 kt. Early on the 10th near the Hainan coast, Patsy was downgraded to a tropical storm, and early on the 11th it was dissipating in the Gulf of Tonkin. The GEN. HUGH J. GAFFEY and the CALIFORNIA reported 45-50-kt. winds in Philippine waters on the 8th and the South China Sea on the 10th, respectively.

RUTH, AUGUST 13-22

Typhoon Ruth had its first advisory issued during the evening hours of the 13th while it was still a tropical depression near 14°N., 147°E. Approaching Saipan in the Marianas it reached tropical storm strength later that night and curved northward and later north-northwestward along a course taking it up along the Marianas and just east of the chain of minor islands stretching toward Tokyo Bay. Typhoon intensity was reached late on the 14th while near 17°N., 146°E. and the maximum intensity of 160-kt. sustained winds was recorded on the 16th and 17th east of Iwo and Chichi Jima. Ruth now slowly lost strength and recurved along a northeasterly course about 150 mi. southeast of Tokyo early on the 20th with winds down to 85 kt. The tropical storm stage was again reached late on the 22d near 41°N., 160°E., and on the following day it was considered extratropical. Reports of gales within the circulation of Ruth were received from vessels during the period from the 14th through the 23d. These vessels include the CONTEST (38 kt.), GEN. EDWIN D. PATRICK (58 kt.), LESLIE LYKES (38 kt.), MANILA (40 kt.), PRESIDENT MADISON (35 kt.), and WASHINGTON

BEAR (40 kt.).

SARAH, AUGUST 15-22

Typhoon Sarah developed in a squally area about 300 mi. east of Taiwan. Early on the 15th the circulation was of tropical storm strength centered near 23°N., 127°E. Sarah did not move much during the first 24 hr., and when a reconnaissance aircraft checked the storm late on the 15th it was found near 24°N., 126°E. Wind speeds now increased and they were clocked at 75 kt. on the 16th and 17th, the maximum intensity Sarah obtained during its life as a tropical cyclone. The typhoon remained about stationary until late on the 18th, then it started moving northward toward western Kyushu. On approaching the Kyushu coast at noon on the 20th, Sarah lost intensity and was downgraded to a tropical storm and passing over that island the following day, winds had dropped to the 30-50-kt. range. Ruth and Sarah were only 750-1,000 mi. apart with their circulations linked as they moved northward on nearly parallel tracks toward Japan from the 19th to the 21st. Sarah turned extratropical off northern Honshu on the 23d.

THELMA, AUGUST 21-27

Typhoon Thelma, a tropical storm near 18°N., 147°E. at the time the first advisory was issued at midnight of the 21st, reached typhoon intensity around noon the same day. It moved on a northwesterly course while increasing in intensity, reaching maximum strength on the 25th when winds were 120 kt. near the center. At this time Thelma had curved more northward and was approaching southern Honshu. Late on the 25th it moved inland near Nagoya and the intensity dropped quickly to tropical storm strength. The weakened storm reappeared in the Sea of Japan on the 26th and then recurved toward the northeast through the Tsugaru Strait between Honshu and Hokkaido after midnight of the 27th. Reaching the northern latitudes, Thelma was losing its tropical characteristics. It developed into a fairly deep extratropical LOW which remained south of Kamchatka near 45°N. from the 28th through the 30th. The CHINA BEAR encountered 40-kt. winds just off the Honshu coast in Thelma on the 25th.

VERA, AUGUST 25-28

Typhoon Vera was detected in a low pressure area which was earlier photographed by the TIROS weather satellite. The first advisory was issued during the morning hours of the 25th placing a cyclone of tropical storm strength near 22°N., 133°E. Vera was very small in size and just managed to reach typhoon strength based on data received from reconnaissance flights into the storm on the 26th which recorded maximum sustained winds of 75 kt. near 24°N., 133°E. On the 27th Vera was downgraded to a tropical storm when near 28°N., 131°E., and early the next day it was dissipating over the Japanese island of Shikoku.

WANDA, AUGUST 27-SEPTEMBER 1

Typhoon Wanda formed in a low pressure area which had traveled westward through the Marianas on the 25th. TIROS photographed this cloud system around midnight of the 27th, and based on surface reports, a tropical depression warning was issued around noon of the 27th placing the depression near 15°N., 135°E. A reconnaissance flight into the area early on the 28th located Wanda near 16°N., 132°E. with winds of tropical storm strength. The track took the storm west-northwestward while it was slowly intensifying. Typhoon strength was reached early on the 29th near 18°N., 128°E. Wanda moved just north of Luzon early on the 30th attended with 80-kt. winds, and its large circulation extended over large portions of both the Philippines and Taiwan. The greatest intensity was reached at the time it approached the China coast near Hong Kong late on the 31st. Winds were then estimated at 95 kt. by reconnaissance aircraft penetrating the storm. Considerable damage was done in Hong Kong and well over 400 persons lost their lives and more than 10,000 were left homeless as storm surges flooded low-lying areas. Wanda churned Hong Kong's usually placid harbor into a raging cauldron that sent 3 oceangoing freighters aground, tore 7 others loose from their moorings, and swamped and sank uncounted sampans, junks, and other small craft. Wanda dissipated quickly on moving inland over China. Vessels encountering strong winds along Wanda's approach to Hong Kong include the COEUR D'ALENE VICTORY (60 kt.), FLYING ENTERPRISE II (120 kt.), JULESBURG (65 kt.), and PRESIDENT HARRISON (35 kt.).

AMY, AUGUST 29-SEPTEMBER 8

Typhoon Amy, a tropical depression near 15°N., 149°E. when the first warning was issued early on the 29th, reached typhoon intensity at noon of the 30th. At this time the storm was passing through the Marianas about 250 mi. north of Guam. Amy first moved northwestward and later generally westward toward Taiwan while intensifying. Maximum intensity was reached on the 1st and 2d, when reconnaissance aircraft measured sustained winds of 140 kt. near the center. During the early morning hours of the 5th, Amy roared across Taiwan with maximum winds above typhoon strength. Casualties were light on Taiwan with four people reported killed in Taipei. Amy battered the general area of northern Taiwan which was hit by Opal a month earlier. The tracks of these two typhoons were similar in many respects. Late on the 5th, Amy, as a tropical storm, crossed inland over the China mainland northeast of Foochow. Over land it weakened still further while moving northward over the coastal provinces. The storm entered the Yellow Sea on the 7th, crossed Korea later that day while assuming extratropical characteristics, and moved into the Sea of Japan. By the 9th the LOW was weakening over Sakhalin. Heavy rains from the 7th through the 9th caused considerable damage over portions of the southern maritime provinces of the U.S.S.R. as overflowing rivers washed out bridges, tore up highways and disrupted communications. Among the vessels encountering gale force winds along Amy's track were the FERNSTATE (40 kt.), MARYLAND TRADER (35 kt.), PALMETTO STATE (50 kt.), and PRESIDENT GRANT (38 kt.).

CARLA, SEPTEMBER 19-23

Typhoon Carla was reported as a tropical depression in the South China Sea off the west coast of Luzon near 17°N., 118°E. early on the 19th. The depression was moving west-northwestward toward Hainan while intensifying. On the 20th the depression was upgraded to tropical storm strength near 17°N., 116°E., and on the 21st just before striking Hainan, Carla was considered a typhoon with wind speeds reaching 70 kt. near the center. After crossing Hainan into the Gulf of Tonkin, Carla's intensity dropped to tropical storm strength, and on moving inland over the delta region near Haiphong and Hanoi on the 22d, the storm dissipated rapidly.

DINAH, SEPTEMBER 25-OCTOBER 4

Typhoon Dinah formed from a tropical depression which during the 25th-28th was present in the general area near 15°N., 140°E. Early on the 29th the tropical storm stage was reached near 17°N., 138°E., and Dinah became a typhoon based on data taken during a reconnaissance flight into the storm when it was located near 20°N., 135°E. on the 30th. From this point Dinah followed a track similar to that of typhoon Wanda of about a month earlier, moving generally westward between the Philippines and Taiwan toward Hong Kong. Dinah reached an intensity of about 100 kt. as it passed south of Taiwan on October 2, and it remained near this peak intensity until crossing the China coast near Swatow on the 3d and continuing toward Canton. Fringe winds were felt in Hong Kong, but less than an inch of rain was recorded in the water-short crown colony. Once over land Dinah dissipated rapidly. The SANSINENA and the SAN JUAN TRAVELER reported 35- and 48-kt. winds, respectively, near Dinah's track to the northeast of the Philippines.

EMMA, SEPTEMBER 1-11

Typhoon Emma developed in the Mariana Islands as the month began. It remained nearly stationary near 16°N., 147°E. to the northeast of Guam on the 1st and 2d while getting organized with the speeds of its maximum winds increasing above typhoon strength. Emma moved very slowly north-northwestward to near 23°N., 144°E. by late on the 5th, and sustained winds had by then increased to 145 kt. near the center. At this point Emma started moving east-northeastward while decreasing slightly in intensity. Early on the 9th it moved close to Marcus Isle with winds well above typhoon intensity. Emma now curved along a more northeasterly course, becoming extratropical around noon of the 11th near 38°N., 169°E. At this time winds were down to near 60 kt. As often happens to tropical cyclones after their transformation into extratropical cyclones, the remains of Emma redeveloped into an intense LOW with central pressure around 950 mb. and winds increased again above typhoon intensity. The storm crossed the Aleutians near 175°E. into the Bering Sea early on the 13th, and while losing strength it moved toward the Alaska Peninsula where it dissipated on the 16th. Numerous ships came close enough to this large and intense typhoon, along its track across the shipping lanes, to encounter hurricane force winds. The following vessels all reported winds force 12 and above: The Coast Guard Cutter BERING STRAIT, 105 kt. on the 10th; IBERVILLE, 90 kt. on the 11th; JESPER MAERSK, 90 kt. on the 11th; HAROLD H. HELM, 64 kt. on the 9th; and the OREGON MAIL, 65 kt. during the extratropical stage on the 13th.

FREDA, SEPTEMBER 3-10

Typhoon Freda formed on the 3d in the area to the east of Emma near 20°N., 160°E. Freda's location was within the fringes of Emma's large circulation, and the forward movement of these two cyclones therefore was to a considerable extent interrelated. Freda became a typhoon early on the 4th when near 22°N., 164°E. The maximum intensity was reached on the 5th and 6th when sustained winds were estimated at 100 kt. by reconnaissance aircraft. Freda moved mostly northward and later northeastward picking up forward speed on the 9th. The intensity diminished below the typhoon stage at this time when near 35°N., 170°E. On the 10th it was considered extratropical. The circulation of Freda now merged with another LOW and the new system was carried rapidly by the upper westerlies as a weak, open wave east-southeastward toward the northern California coast. Late on the 12th the wave intensified to a deep LOW which struck coastal areas of the Pacific Northwest with damaging winds (see article on Pacific Coast Storm on page 16 of the January 1963 issue). Vessels reporting winds 60 kt. or above during the period from the 11th through the 13th off the North American coast include the BODENSTEIN, CHOCKTAW, and GULFSOLAR.

GILDA, OCTOBER 19-30

Typhoon Gilda had its first advisory issued early on the 19th when a tropical depression near 11°N., 136°E. Early on the 22d a reconnaissance flight into the area found that Gilda had reached the tropical storm stage. Twenty-four hours later it became a typhoon. Gilda moved slowly northwestward toward Luzon reaching maximum strength on the 26th and 27th with sustained winds of 115 kt. near 17°N., 125°E. At this point about 150 mi. east of Luzon the cyclone started recurving northward and later northeastward moving well south and east of the Ryukyus and Japan. On the 30th, when near 35°N., 150°E., Gilda weakened to a tropical storm and later that day was considered extratropical. The DOCTOR LYKES and the ZAMBOANGA both recorded 35-kt. winds in the periphery of Gilda's circulation on the 23d and 26th, respectively.

IVY, OCTOBER 28-29

Typhoon Ivy was detected near 17°N., 138°E. on the 28th in the periphery of typhoon Gilda's circulation. Ivy's winds were reported as 100 kt. at this time. Ivy moved to within 300 mi. of the center of Gilda on the 29th and quickly merged into Gilda's large circulation.

JEAN, NOVEMBER 6-12

Typhoon Jean had its first advisory issued early on the 6th while still of tropical storm strength. Jean crossed the central Philippines from northern Samar to southern Mindoro on the 6th with winds around 50 kt. Upon entering the South China Sea early on the 7th, winds increased to typhoon intensity. Jean moved in a west-northwesterly direction, reaching its maximum intensity late on the 8th and early on the 9th near 16°N., 113°E. at which time winds were estimated at 90 kt. On approaching the Viet Nam coast, Jean lost intensity and became quasi-stationary. At noon on the 12th, it had dropped to tropical depression strength and was dissipating near 17°N., 111°E. The vessel TELEMACHUS was within the range of gale force winds on the 8th, 9th and 10th.

KAREN, NOVEMBER 7-18

Typhoon Karen was spotted near Truk on the 7th with winds of tropical storm intensity. During the following 48 hr. it moved slowly north-northeastward while intensifying. Typhoon intensity was reached near 9°N., 152°E. early on the 8th, and the intensity increased to 150 kt. early on the 9th near 11°N., 153°E. At this time Karen changed course, turning 90 degrees to the west and heading for Guam with winds still well above 100 kt. On Sunday the 11th at about noon (GMT) the center of Karen crossed Guam. Severe damage ranging to total destruction was inflicted on many civilian and military installations on the island. Of the island's 40,000 natives and 30,000 military personnel and dependents, 9,000 were left homeless. Adequate warnings kept the death toll low. Eleven were known dead and more than 100 injured, and damage has been estimated at about $250,000,000. From Guam, Karen continued west-northwestward still a large and intense typhoon. Sea level pressure on the 12th measured at 897 mb., and the sustained winds reached speeds of 160 kt. on the following day. On the 14th it curved northward and passed about 400 mi. east of Taiwan early on the 15th with winds down to 85 kt. Now recurving toward the east-northeast and still losing strength, the center of Karen passed within 150 mi. of Okinawa later on the 15th, and that island was briefly within the range of gale force winds. Continuing to pick up forward speed, it moved about 250 mi. off southern Honshu on the 16th. The effects felt over the Japanese Islands were light, and winds near the center now barely exceeded the typhoon criteria. During the forenoon of the 17th, it was downgraded to a tropical storm, and on the 18th the last advisory was issued, placing the decaying storm center near 33°N., 163°E. Vessels encountering winds of 50 kt. or more near Karen include the RAN ANNIM with 70 kt. on the 11th and the NAECO and SGT. ANDREW MILLER both 50 kt. on the 12th and 16th, respectively. For a more detailed description of Karen's devastating blow to Guam, see "Letters to the Editor" on page 52 of the March 1963 issue.

LUCY, NOVEMBER 25-DECEMBER 1

Typhoon Lucy had its first advisory issued when still a tropical depression early on the 25th near 6°N., 141°E. A few hours later near 7°N., 137°E. it had intensified to tropical storm strength, and late on the 26th it was classified a typhoon at 10°N., 126°E. as sustained winds reached 65 kt. near the center. Continuing along a generally westerly course with only little change in intensity it crossed the south-central Philippine islands of Leyte, Cebu, Negros, and Panay and the northern Sulu Sea on the 27th and Palawan Island into the South China Sea on the 28th. Lucy reached its maximum strength upon approaching the extreme southern coast of Viet Nam at 10°N., 111°E. on the 29th when maximum sustained winds were measured at 100 kt. The center of Lucy passed about 50 mi. south of Saigon across the Mekong Delta on the 30th with winds quickly dropping below typhoon intensity. Five persons were reported killed as their fishing boats were swamped off the coast. Upon entering the Gulf of Siam, Lucy became a harmless tropical depression, and the final warning was issued late on the 1st, placing the decaying center near the upper Thailand coast of the Malay Peninsula. The PETROQUEEN was among the vessels recording gale force winds off the Viet Nam coast on the 29th.

TABLE I

TYPHOONS OF THE WESTERN NORTH PACIFIC, 1962

Name	Date of Initial Surface Vortex (GMT)	Dates During Period of Typhoon Winds (GMT)	Calendar Days of Typhoon Intensity	Values and Dates (GMT) of:				Total Lives Lost	Total Estimated Damage	Land Areas Affected
				Highest Surface Wind Speed (kt.)	Lowest Surface Pressure^1 (mb.)	Lowest 700-mb. Height^1 (ft.)	Maximum Vertical Development of Typhoon (Hundred of feet)			
GEORGIA	4/13	4/17-22	5-3/4	130/20	936/21	8210/20	350/20	None reported	$28,000	
HOPE	5/13	5/19-21	1-3/4	85/20	978/20	9530/20	250/20	None reported	None reported	Philippines
IRIS	5/26	5/27	1/4	65/27	991/27	10,000/27	350/27	5	Crops damaged No estimate	Philippines
JOAN	7/06	7/08-09	1-3/4	80/09	985/08	9770/08	300/08	None	$500,000	Okinawa and Japan
KATE	7/18	7/20-22	2-3/4	85/22	964/22	9060/22	350/21	110	$25,000,000	Philippines, Taiwan and China
LOUISE	7/19	7/21-26	5-1/4	80/22-23-24	958/24	9000/23	300/25	15	$7,500,000	Japan
NORA	7/26	7/30-8/01	3	75/7/31-8/01	968/30	9340/01	300/31	4	$1,000,000	Okinawa, Korea and Japan
OPAL	7/28	8/02-06	4	150/05	910/05	7590/05	350/05	75	$25,000,000	Taiwan, China, Korea, U.S.S.R., and Japan
PATSY	8/05	8/08-09	1-1/2	65/08-09	980/08	9900/08	300/09	23	$2,500,000	Philippines and China
RUTH	8/11	8/14-22	8	160/16-17	916/16	7830/16	450/17	No reports	No reports	
SARAH	8/08	8/15-19	4	75/16-17	978/18	9480/18	300/18	No reports	No reports	Japan
THELMA	8/20	8/21-26	4-1/4	120/25	946/23	8540/25	350/25	No reports	No reports	Japan
VERA	8/23	8/25-26	1-1/4	75/26	983/26	9730/26	300/26	No reports	No reports	Japan
WANDA	8/23	8/29-9/01	3-1/4	95/30-31	949/31	8840/31	350/31	434 Dead 41 Missing	Millions	Hong Kong and China
AMY	8/27	8/30-9/05	6-1/4	140/01-02	935/03	8210/03	400/04	24	Millions	Taiwan, China, Korea, and U.S.S.R.
CARLA	9/14	9/21	1/4	75/21	983/21	9650/21	300/21	No reports	No reports	Philippines, China and Viet Nam
DINAH	9/24	9/30-10/03	3-1/2	100/02	953/01	8880/01	350/02	No reports	No reports	Taiwan and China
EMMA	9/30	10/02-11	9-1/2	145/05	903/04	7070/05	400/05	None reported	$250,000	Marcus Island
FREDA	9/28	10/03-08	5-1/4	100/05-06	948/05	8730/05	300/05	No reports	No reports	
GILDA	10/18	10/23-30	7-1/4	115/26-27	933/28	8700/27	300/27	No reports	No reports	
IVY	10/26	10/28-29	1	100/28	997/28	10,130/28	250/28	No reports	No reports	
JEAN	11/03	11/07-10	3-1/4	90/08-09	960/10	9380/10	250/10	No reports	No reports	Philippines
KAREN	11/06	11/08-17	9-1/2	160/13	897/12	7220/09	450/13	11	$250,000,000	Guam
LUCY	11/22	11/26-30	3-1/2	100/29	974/29	9340/29	300/29	5	$5,000,000	Philippines and Viet Nam

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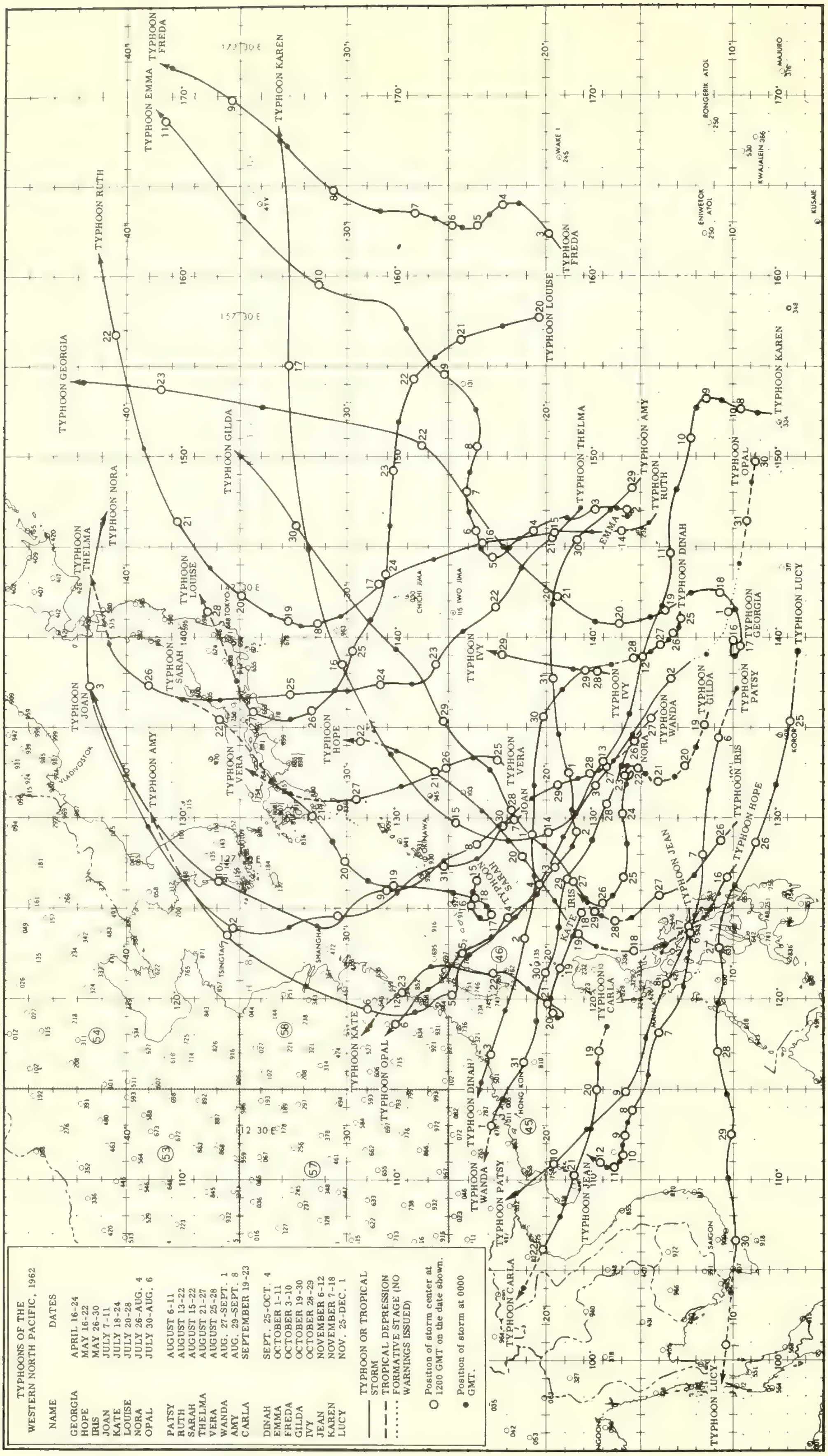
[1] Values reported by reconnaissance aircraft.



TYPHOONS OF THE
WESTERN NORTH PACIFIC, 1962

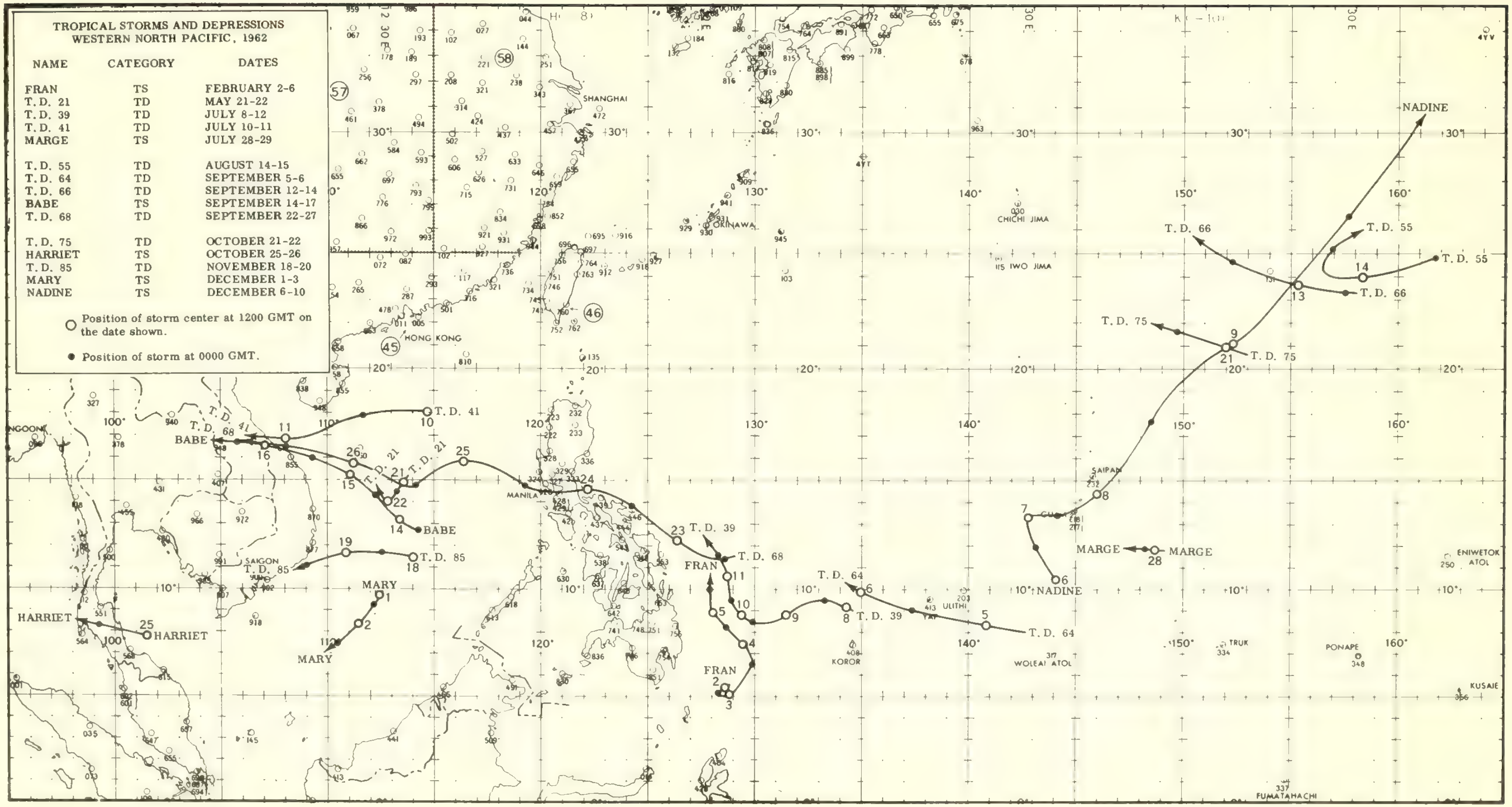
NAME	DATES
GEORGIA	APRIL 16-24
HOPE	MAY 16-22
IRIS	MAY 26-30
JOAN	JULY 7-11
KATE	JULY 18-24
LOUISE	JULY 20-28
NORA	JULY 26-AUG. 4
OPAL	JULY 30-AUG. 6
PATSY	AUGUST 6-11
RUTH	AUGUST 13-22
SARAH	AUGUST 15-22
THELMA	AUGUST 21-27
VERA	AUGUST 25-28
WANDA	AUG. 27-SEPT. 1
AMY	AUG. 29-SEPT. 8
CARLA	SEPTEMBER 19-23
DINAH	SEPT. 25-OCT. 4
EMMA	OCTOBER 1-11
FREDA	OCTOBER 3-10
GILDA	OCTOBER 19-30
IVY	OCTOBER 28-29
JEAN	NOVEMBER 6-12
KAREN	NOVEMBER 7-18
LUCY	NOV. 25-DEC. 1

— TYPHOON OR TROPICAL STORM
– – – TROPICAL DEPRESSION
.... FORMATIVE STAGE (NO WARNINGS ISSUED)

○ Position of storm center at 1200 GMT on the date shown.

● Position of storm at 0000 GMT.

Fig. 1 Typhoons of the Western North Pacific, 1962



TROPICAL STORMS AND DEPRESSIONS
WESTERN NORTH PACIFIC, 1962

NAME	CATEGORY	DATES
FRAN	TS	FEBRUARY 2-6
T.D. 21	TD	MAY 21-22
T.D. 39	TD	JULY 8-12
T.D. 41	TD	JULY 10-11
MARGE	TS	JULY 28-29
T.D. 55	TD	AUGUST 14-15
T.D. 64	TD	SEPTEMBER 5-6
T.D. 66	TD	SEPTEMBER 12-14
BABE	TS	SEPTEMBER 14-17
T.D. 68	TD	SEPTEMBER 22-27
T.D. 75	TD	OCTOBER 21-22
HARRIET	TS	OCTOBER 25-26
T.D. 85	TD	NOVEMBER 18-20
MARY	TS	DECEMBER 1-3
NADINE	TS	DECEMBER 6-10

○ Position of storm center at 1200 GMT on the date shown.

● Position of storm at 0000 GMT.

Fig. 2 Tropical Storms and Depressions of the Western North Pacific, 1962

GENERAL SUMMARY OF FLOOD LOSSES FOR 1961

Monetary losses from floods in the United States during 1961, estimated at $154, 033, 000 was 40 percent greater than in 1960. It was slightly higher than the $141,255, 000 damages reported in 1959. In comparison with the national average of $350, 000, 000, based on the 10-year period 1949 to 1958 (adjusted to the 1958 price index) the flood loss in 1961 was about 45 percent.

The total loss of life in 1961 was 52, compared to 32 in 1960, and 25 in 1959. However, it was considerably smaller than the national average of 81 lives during the last 37 years (1925-1961).

The savings resulting from the flood forecasting and warning service were, as compiled from fragmentary information, approximated $9,000,000. This figure represents only about 10 percent of the river systems where flooding was reported during the year.

The most damaging floods during 1961 were the record to near record floods in the Upper Mississippi Basin in March and the hurricane Carla floods in September. Heavy rains were associated with the hurricane as it moved along a northerly course across eastern Texas, then northeastward across southeastern Oklahoma, northwestern Arkansas, southeastern Missouri, central Illinois, and through the upper Great Lakes region. The resulting floods were especially severe in north-central and eastern Kansas and in western and northern Missouri. The flooding in the Marais des Cygnes Basin was the most severe and widespread since the record flood of July 1951. Some tributaries experienced the greatest flood of record.

ANNUAL FLOOD LOSSES FOR U. S.

Annual Flood Losses and Savings for years 1933 to 1947, inclusive, have been published in the Monthly Weather Review as follows:

Year	Issue of Review	Pages
1933	Vol. 62, No. 1, Jan. 1934	25-27
1934	Vol. 62, No. 12, Dec. 1934	465-467
1935	Vol. 63, No. 12, Dec. 1935	362-365
1936	Vol. 65, No. 1, Jan. 1937	28-31
1937	Vol. 66, No. 12, Dec. 1938	426-430
1938	Vol. 68, No. 9, Sep. 1940	262-263
1939	Vol. 68, No. 11, Nov. 1940	329-330
1940	Vol. 69, No. 7, Jul. 1941	217-218
1941	Vol. 71, No. 11, Nov. 1943	185-186
1942 & 1943	Vol. 73, No. 8, Aug. 1945	137-139
1944 & 1945	Vol. 76, No. 6, Jun. 1948	113-116
1946	Vol. 76, No. 9, Sep. 1948	208-210
1947	Vol. 77, No. 9, Sep. 1949	262-265

Beginning with flood losses for the year 1948, annual flood loss data are published in Climatological Data, National Summary, as follows:

Year	Issue of Climatological Data
1948	August 1950
1949	Annual 1950
1950) 1951)	Annual 1951
1952	Annual 1952
1953	Annual 1953

GENERAL SUMMARY OF FLOOD LOSSES FOR 1961-Continued

Year	Issue of Climatological Data
1954	Annual 1955
1955	Annual 1956
1956	Annual 1957
1957	Annual 1958
1958	Annual 1959
1959	Annual 1960
1960	Annual 1961

Prior to 1933 Flood Losses and Savings were published monthly, as a rule, in the *Monthly Weather Review*.

ESTIMATED FLOOD LOSSES FOR 1961

PROPERTY LOSSES IN THOUSANDS OF DOLLARS

River and drainage	Urban Property					Rural Property					Other Property		Miscellaneous	Unclassified	Total Loss	Lives Lost
	Residential		Commercial		Public	Crops		Livestock	Other		RR's, bridges, Highways, etc.	Public Utilities				
	Fixed	Movable	Fixed	Movable		Growing	Stored		Fixed	Movable						
ST. LAWRENCE DRAINAGE																
Lake Ontario																
Summerville Valley Creek	....	....	....	....	....	....	....	....	....	....	....	....	....	5.0	5.0	1
Canaseraga Creek	....	....	....	....	....	10.0	....	....	....	....	200.0	....	1.0	....	211.0	....
Total	....	....	....	....	....	10.0	....	....	....	....	200.0	....	1.0	5.0	216.0	1
ATLANTIC SLOPE DRAINAGE																
St. John River in Maine	....	....	....	....	....	....	....	....	....	....	....	....	....	300.0	300.0	....
St. Croix River in Maine	....	....	....	....	....	....	....	....	....	....	....	....	....	500.0	500.0	....
Susquehanna and Chemung Rivers in New York	14.0	....	4.0	....	6.4	6.0	....	....	....	....	211.5	5.5	....	....	247.4	....
West Branch Susquehanna	12.8	4.0	10.0	5.0	10.0	....	....	....	....	....	5.0	5.0	17.0	....	68.8	....
Juniata River	1.5	....	....	....	....	....	....	....	....	....	....	....	....	....	1.5	....
Susquehanna River in Pennsylvania	15.5	1.0	2.4	0.2	2.0	....	....	....	....	....	....	....	3.8	....	24.9	....
James River	....	....	....	....	....	....	....	....	....	....	....	....	....	25.0	25.0	....
Waccamaw River	....	....	3.0	....	....	40.0	....	0.5	1.5	....	5.0	....	35.0	....	85.0	....
Pee Dee River	....	....	....	....	....	5.0	....	....	....	....	....	....	48.0	....	53.0	....
Santee River	....	....	....	....	....	222.0	....	1.0	....	....	....	3.0	5.0	....	231.0	....
Savannah and Ogeechee Rivers	....	....	....	....	....	....	....	1.0	....	....	....	....	76.3	....	77.3	....
Oconee River	11.0	....	135.0	....	7.0	....	....	....	....	....	....	....	0.8	....	153.8	....
Total	54.8	5.0	154.4	5.2	25.4	273.0	....	2.5	1.5	....	221.5	13.5	185.9	825.0	1,767.7	....
EAST GULF OF MEXICO DRAINAGE																
Flint River	E 63.1	....	....	....	....	F 178.4	....	....	....	....	G 19.6	....	....	....	D 261.1	....
Chattahoochee River	E 3,209.8	....	....	....	....	F 683.0	....	....	....	....	G 40.1	....	....	....	D 3,932.9	....
Apalachicola River	E 107.5	....	....	....	....	F 8.1	....	....	....	....	G 83.0	....	....	....	D 198.6	....
Pea River	....	....	....	....	....	F 6.6	....	....	....	....	....	....	....	....	D 6.6	....
Choctawhatchee River	E 10.0	....	....	....	....	F 47.6	....	....	....	....	G 32.6	....	....	....	D 90.2	....
Etowah River	E 137.5	....	....	....	....	F 187.9	....	....	....	....	G 13.1	....	....	....	D 338.5	....
Coosawattee River	....	....	....	....	....	F 17.4	....	....	....	....	G 0.6	....	....	....	D 18.0	....
Conasauga River	....	....	....	....	....	F 54.9	....	....	....	....	G 5.2	....	....	....	D 60.1	....
Oostanaula River	E 4.8	....	....	....	....	F 540.3	....	....	....	....	G 67.6	....	....	....	D 612.7	....
Tallapoosa River	....	....	....	....	....	F 467.7	....	....	....	....	G 34.8	....	....	....	D 502.5	....
Coosa River	E 138.8	....	....	....	....	F 1,335.1	....	....	....	....	G 50.7	....	....	....	D 1,524.6	....
Cahaba River	....	....	....	....	....	F 262.9	....	....	....	....	G 43.4	....	....	....	D 306.3	....
Alabama River	E 2,353.9	....	....	....	....	F 2,212.9	....	....	....	....	G 219.4	....	....	....	D 4,786.2	....
Valley and Village Creeks near Birmingham and Bessemer, Ala.	....	....	....	....	....	....	....	....	....	....	....	....	....	750.0	750.0	....
Black Warrior River	E 886.0	....	....	....	....	846.0	....	....	680.0	....	20.0	59.0	....	....	D 2,491.0	....
Tombigbee River	E 613.0	....	....	....	....	2,002.0	....	....	800.0	....	171.0	160.0	....	....	D 3,746.0	....
Mobile River	....	....	....	....	....	....	....	....	....	....	....	....	....	120.0	120.0	....
Sowashee Creek	12.1	....	....	....	....	1.2	....	....	....	....	....	....	....	....	13.3	....
Chickasawhay River	E 452.0	....	....	....	....	F 450.4	....	....	....	....	53.1	77.3	26.3	....	D 1,059.1	....
Leaf River	E 1,270.8	....	....	....	....	F 266.9	....	....	....	....	83.7	61.8	368.5	....	D 2,051.7	3
Pascagoula River	....	....	....	....	....	F 24.5	....	....	....	....	....	....	....	....	D 24.5	....
Bogue Chitto River	....	....	....	....	....	F 116.5	....	....	....	....	11.3	18.5	....	....	D 146.3	....
Pearl River	A 4,782.3	....	....	....	268.8	F 1,618.9	....	....	....	....	637.5	2.1	35.9	....	D 7,345.5	....
Total	14,041.6	....	....	....	268.8	11,329.2	....	....	1,480.0	....	1,586.7	378.7	430.7	870.0	30,385.7	3
MISSISSIPPI SYSTEM																
Upper Mississippi Basin																
Zumbro River	....	....	....	....	....	....	....	....	....	....	....	....	....	34.0	D 34.0	....
Whitewater River	EF 15.0	....	....	....	....	....	....	....	....	....	2.5	....	....	....	D 17.5	....
Black River	....	....	....	....	....	....	....	....	....	....	....	....	....	5.0	D 5.0	....
Root River	....	....	....	....	....	....	....	....	....	....	....	....	....	500.0	D 500.0	....
Upper Iowa River	....	....	....	....	....	....	....	....	....	....	....	....	....	100.0	D 100.0	....
Kickapoo River	EF1,160.0	....	....	....	....	....	....	....	....	....	240.0	....	....	....	D 1,400.0	....
Turkey River	....	....	....	....	....	150.0	....	....	....	....	12.0	....	....	....	D 162.0	....
Maquoketa River	....	....	....	....	5.0	35.0	....	....	....	....	....	....	....	....	D 40.0	....
Pecatonica River	....	....	....	....	13.0	60.0	....	....	....	....	....	....	....	....	D 73.0	....
Rock River	....	....	....	....	12.0	125.0	....	....	....	....	....	....	....	....	D 137.0	....
Cedar River	....	....	....	....	....	....	....	....	....	....	....	....	....	5,442.3	5,442.3	....
Mad Creek	13.0	....	644.0	....	263.0	....	....	....	....	....	....	....	....	....	D 920.0	3
Salt River	....	....	....	....	....	655.0	....	....	6.0	....	80.0	....	....	....	741.0	....
Illinois River and Tributaries	22.0	8.0	2.5	1.0	0.5	524.0	30.0	....	14.0	0.2	32.0	3.0	6.0	....	643.2	....
Cuivre River	....	....	....	....	....	80.0	....	....	9.0	....	22.0	....	....	....	D 111.0	....
Meramec River	100.0	....	....	....	....	350.0	....	....	....	....	150.0	....	309.0	....	D 909.0	....
Kaskaskia River	610.0	....	....	....	....	2,663.0	....	....	80.0	....	294.0	....	113.0	....	D 3,760.0	....
Big Muddy River	870.0	....	....	....	....	1,403.0	....	....	84.0	....	465.0	290.0	295.0	....	D 3,407.0	....
Cache River	....	....	....	....	....	122.0	....	....	7.0	....	96.0	....	....	....	D 225.0	....
Upper Mississippi River	770.0	10.0	....	....	500.0	4,214.0	....	....	104.0	27.0	794.0	5.0	269.0	....	D 6,693.0	1
Total	3,560.0	18.0	646.5	1.0	793.5	10,381.0	30.0	....	304.0	27.2	2,187.5	298.0	992.0	6,081.3	25,320.0	4

See reference notes at end of table.

ESTIMATED FLOOD LOSSES FOR 1961

PROPERTY LOSSES IN THOUSANDS OF DOLLARS

River and drainage	Urban Property					Rural Property					Other Property		Miscellaneous	Unclassified	Total Loss	Lives Lost
	Residential		Commercial		Public	Crops		Livestock	Other		RR's, bridges, Highways, etc.	Public Utilities				
	Fixed	Movable	Fixed	Movable		Growing	Stored		Fixed	Movable						
Missouri Basin																
Bad River								1.0							1.0	....
Little Sioux River	0.5				6.0	10.0					55.2		1.0		72.7	2
Nemaha River						20.0			2.0						D 22.0	....
Nodaway River						2.9					0.3			52.0	55.2	....
Platte River of Missouri	19.1		4.5		17.9	150.6			23.5		18.1	3.0	32.3		D 269.0	....
Saline River			0.5			1,077.6			15.1		2.5				1,095.7	....
Solomon River			0.5		0.8	1,828.8			47.5		43.2		9.5		D 1,930.3	....
Turkey Creek of Kansas	69.0		415.0								24.0				D 508.0	....
Smoky Hill River						133.2			9.0		7.1				D 149.3	....
Republican River						277.0			26.5		37.6		28.3		D 369.4	....
Little Blue River						85.9	7.5		4.0		14.7				D 112.1	....
Big Blue River						20.5			3.5		1.5				D 25.5	....
Stranger Creek	2.0	1.0	4.0	3.0	35.0	217.0	10.0	2.0	10.5	1.8	8.0		2.0		296.3	....
Kansas River						275.4			16.7		9.2		10.0		D 311.3	....
Blue River of Missouri	615.0		6,871.4		236.8	30.8		0.6	44.8		200.5	104.1	20.2		D 8,124.2	....
Little Blue River of Missouri	46.0		240.0		194.0	184.0		9.0	45.0		150.3		4.0		D 872.3	....
Crooked River														20.0	20.0	....
Wakenda River	E 9.0					F 68.0					10.0				D 87.0	....
Thompson Fork														22.5	22.5	....
Grand River	40.8				1.0	3,857.4			76.9		96.0		11.2		D 4,083.3	....
Chariton River						697.7			11.9		25.4		19.0		D 754.0	....
Lamine River						825.6			26.1		26.2				D 877.9	....
Blackwater River						448.6			21.8						D 470.4	....
Little Osage River						214.1			15.0		0.9		6.2		D 236.2	....
Marmaton River	13.1		31.8		10.5	258.4			28.5		9.5		13.4		D 365.2	....
Sac River						49.0			4.5		0.7				D 54.2	....
Pomme de Terre River	4.5		3.6			5.0			1.0		2.7				D 16.8	....
South Grand River	17.7		131.9		5.8	766.4		1.5	40.4		176.9		57.9		D 1,198.5	....
Niangua River	5.0	15.0			75.2	151.5	50.0	5.0	17.5	80.0	140.0				D 539.2	....
Marais Des Cygnes River	226.8		72.8		23.5	1,623.7		0.8	73.1		80.3		58.1		D 2,159.1	4
Osage River	136.9	5.0	33.0		52.9	1,189.8	3.0	1.5	77.8		38.9		91.4		D 1,630.2	1
Gasconade River						48.5			25.0		2.4		0.5		D 76.4	....
Missouri River	23.6		48.1		5.7	6,706.8			160.0		64.1		176.9		D 7,185.2	....
Total	1,229.0	21.0	7,857.1	3.0	665.1	21,224.2	70.5	21.4	827.6	81.8	1,246.2	107.1	541.9	94.5	33,990.4	7
Ohio Basin																
Allegheny River	77.9	28.3	9.8	10.4	30.6	53.5			43.1		173.4	2.0	125.6		554.6	....
Flash Flooding of Wolfe and Salt Lick Creeks in Preston County, W.Va.	10.0		40.0								41.9		1.1		93.0	....
Hocking River	E 95.0					F 85.0									180.0	....
Little River in Vicinity of Sparta, N. C.	10.0	1.0	1.0	1.0	5.0	1.0			1.0						20.0	....
Small Streams in Charleston, W.Va.														3,238.2	D 3,238.2	22
Prater and Bartlett Creeks and Other Small Streams near Elkhorn City, Ky. and Haysi, Va.	110.5	10.0	35.0	5.0	73.1	6.0			12.4		150.0	3.0	7.0		D 412.0	3
Paint Creek and Other Creeks Near Paintsville, Ky.	96.8			128.8	17.8	500.0					4.0				D 747.4	....
Little Sinking Creek	E 26.0										25.0				51.0	....
Licking River and Tributaries														250.0	250.0	....
Small Streams in Waveland, Ind.	7.5	6.5			3.0	3.0	7.5				200.0				227.5	....
Wabash and White Rivers	74.6	1.1	90.0		216.5	1,508.0	50.0	5.0	75.0	0.5	501.6	0.5	26.3		2,549.1	2
Streams in Warren County, Tenn.	E 49.0					230.0			50.0		170.0				499.0	....
Cumberland River											2.0				2.0	....
Upper French Broad River and Tributaries	2.5		36.5		5.4	1,171.0			16.2		23.4		125.2		H 1,380.2	1
Pistol Creek in Blount County, Tenn.											35.0	2.0			37.0	....
Ohio River and Lesser Tributaries	432.0	505.6	3,174.0	641.7	3,559.1	2,201.1	173.5	44.0	422.5	1,921.6	3,598.0	266.8	6,567.4		23,507.3	3
Total	991.8	552.5	3,386.3	786.9	3,910.5	5,758.6	231.0	49.0	620.2	1,922.1	4,924.3	274.3	6,852.6	3,488.2	33,748.3	31
White Basin																
Black River		10.0	55.0		30.0	85.0					55.0		10.0		245.0	....
Little Red River	7.0	4.0	8.0		20.0	9.0		3.5	2.8	11.0	60.0		3.0		128.3	....
White River	5.0	4.0	7.5	3.0	25.0	859.5		66.0	35.0		170.0	4.5	89.5		1,269.0	....
Total	12.0	18.0	70.5	3.0	75.0	953.5		69.5	37.8	11.0	285.0	4.5	102.5		1,642.3	....
Arkansas Basin																
Chikaskia River						50.0			5.0		10.0				65.0	....
Uncle John and Kingfisher Creeks	167.0	7.5	60.0	6.0	6.2							21.6	18.0		286.3	....
Hominy and Bird Creeks, Tulsa, Okla. and Vicinity	12.5	0.5			25.0	40.0			2.2				44.2		124.4	....
Fall River						77.0			31.0						D 108.0	....
Elk River	E 37.0					355.0			358.0						D 750.0	....
Verdigris and Caney Rivers	314.0		5.0		47.0	1,144.0			580.0		100.0		0.5		D 2,190.5	....
Cottonwood River	E 11.0					118.0			52.0						D 181.0	....
Neosho River	324.0	10.0	10.0	25.0	20.0	1,620.0			731.0		20.0				D 2,760.0	....
Illinois River and Tributaries						20.0		1.0	5.0	1.0					27.0	....
Arkansas River	16.0	6.5			22.0	595.0			76.0	5.0	253.2	20.0	45.0		1,038.7	1
Total	881.5	24.5	75.0	31.0	120.2	4,019.0		1.0	1,840.2	6.0	383.2	41.6	107.7		7,530.9	1

See reference notes at end of table.

ESTIMATED FLOOD LOSSES FOR 1961

PROPERTY LOSSES IN THOUSANDS OF DOLLARS

River and drainage	Urban Property					Rural Property					Other Property		Miscellaneous	Unclassified	Total Loss	Lives Lost
	Residential		Commercial		Public	Crops		Livestock	Other		RR's, bridges, Highways, etc.	Public Utilities				
	Fixed	Movable	Fixed	Movable		Growing	Stored		Fixed	Movable						
Red Basin																
Caddo River	....	....	....	4.0	5.0	15.0	....	82.0	8.0	7.0	37.0	....	....	....	158.0	....
Little Missouri River	....	....	....	....	3.0	0.2	....	0.5	0.1	....	....	....	....	....	3.8	....
Ouachita River	....	....	....	....	....	8.0	....	5.0	2.0	....	6.0	....	....	....	21.0	....
Lower Red River	....	....	....	....	....	1,078.2	....	....	....	....	G 347.6	....	....	....	D 1,425.8	....
Total	....	....	....	4.0	8.0	1,101.4	....	87.5	10.1	7.0	390.6	....	....	....	1,608.6	....
Lower Mississippi Basin																
Big Black River	....	....	....	....	....	....	....	....	....	....	....	....	....	150.0	D 150.0	....
St. Francis River	....	....	....	....	....	32.5	....	....	....	....	5.0	....	12.5	....	D 50.0	....
Mississippi River	20.0	....	....	....	....	3,780.3	....	....	5.0	100.0	413.4	55.0	1,041.0	5,847.0	D 11,261.7	....
Total	20.0	....	....	....	....	3,812.8	....	....	5.0	100.0	418.4	55.0	1,053.4	5,997.0	11,461.7	....
WEST GULF OF MEXICO DRAINAGE																
Sabine River	....	....	....	....	....	....	....	....	....	....	....	....	71.4	....	71.4	....
Neches River	....	....	....	....	....	13.0	....	1.8	12.0	....	....	....	1.0	....	27.8	....
Trinity River and Tributaries	500.0	400.0	50.0	....	50.0	202.0	....	....	131.5	....	6.0	....	77.0	....	1,416.5	....
Little River	....	....	....	....	....	226.0	....	....	127.0	....	....	....	1.0	....	354.0	....
Colorado River of Texas	....	....	....	....	....	....	....	....	....	....	5.0	....	....	....	5.0	....
Lavaca and Navidad Rivers	....	....	....	....	5.0	80.0	....	....	24.0	4.0	40.0	....	....	....	153.0	....
Guadalupe and San Antonio Rivers	15.0	10.0	5.0	2.0	25.0	507.5	....	4.0	10.0	....	15.0	1.0	3.0	....	597.5	1
Atascosa and Frio Rivers in Medina, Frio, Atascosa and Zavalla Counties, Texas	4.0	2.0	....	0.5	5.0	20.0	....	4.0	15.0	5.0	20.0	1.0	4.0	....	80.5	....
Rio Grande and Tributaries	85.5	18.3	7.0	5.0	70.0	0.5	....	8.0	....	0.8	8.5	4.0	31.8	....	239.4	....
Total	604.5	430.3	62.0	7.5	155.0	1,049.0	....	17.8	319.5	9.8	94.5	6.0	189.2	....	2,945.1	1
GULF OF CALIFORNIA DRAINAGE																
Colorado Basin																
Mill and Pack Creeks Near Moab, Utah	....	....	....	....	....	....	....	....	....	....	....	....	....	50.0	D 50.0	....
Freemont River and South Desert Wash	....	....	....	....	....	....	....	....	....	....	60.0	....	....	....	60.0	....
Henrieville Creek and Wash	....	....	....	....	....	....	....	....	....	....	12.0	....	....	....	12.0	....
North Virgin River and Tributaries	....	....	....	....	....	....	12.0	2.0	1.0	....	25.0	....	....	....	40.0	....
Santa Crus River, Tucson, Arizona and Vicinity	....	25.0	....	....	100.0	....	....	....	....	....	200.0	....	....	....	325.0	3
Colorado River	55.0	....	....	....	....	....	....	....	....	....	10.0	....	....	....	D 65.0	....
Total	55.0	25.0	....	....	100.0	....	12.0	2.0	1.0	....	307.0	....	....	50.0	552.0	3
GREAT BASIN																
Mill Creek (Nr) Bountiful, Utah	100.0	....	....	....	....	....	....	....	....	....	....	....	....	....	100.0	....
Dry Creek (Nr) Alpine, Utah	....	....	0.2	....	0.5	0.9	....	....	....	....	5.0	1.7	0.5	....	8.8	....
Humboldt River Basin	....	....	....	....	....	....	....	....	....	....	24.2	....	....	....	24.2	....
Truckee River Basin	....	....	....	....	....	....	....	....	....	....	702.3	....	....	....	702.3	....
Bar and Dry Creeks (Nr) Ibapah, Utah	....	....	....	....	....	....	....	....	....	....	10.0	....	....	....	10.0	....
Small Streams in Vicinity of Ely, Nevada	....	....	....	....	....	....	....	....	....	....	34.0	....	....	....	34.0	....
Small Streams in Vicinity of Tonopah, Nevada	....	....	....	....	....	....	....	....	....	....	65.0	....	....	....	65.0	....
Small Streams in Vicinity of Quail Canyon, and Forty Nine Palms Washes in California	....	....	....	....	....	....	....	....	....	....	....	....	....	95.0	D 95.0	....
Total	100.0	....	0.2	....	0.5	0.9	....	....	....	....	840.5	1.7	0.5	95.0	1,039.3	....
PACIFIC SLOPE DRAINAGE																
Umpqua Basin																
Elk Creek	38.0	3.9	97.2	40.0	19.7	....	....	....	....	....	45.0	....	2.5	....	246.3	1
Total	38.0	3.9	97.2	40.0	19.7	....	....	....	....	....	45.0	....	2.5	....	246.3	1
Columbia Basin																
Kootenai River	....	....	....	....	....	....	....	....	....	....	936.0	....	....	....	936.0	....
Coeur D'Alene River	2.0	....	....	....	....	....	....	....	....	....	11.0	....	....	....	13.0	....
Willamette River and Tributaries	35.0	51.5	17.5	35.0	140.0	90.0	....	2.5	88.0	8.0	20.0	....	22.5	....	510.0	....
Total	37.0	51.5	17.5	35.0	140.0	90.0	....	2.5	88.0	8.0	967.0	....	22.5	....	1,459.0	....

See reference notes at end of table.

ESTIMATED FLOOD LOSSES FOR 1961

PROPERTY LOSSES IN THOUSANDS OF DOLLARS

River and drainage	Urban Property					Rural Property					Other Property		Miscellaneous	Unclassified	Total Loss	Lives Lost
	Residential		Commercial		Public	Crops		Livestock	Other		RR's, bridges, Highways, etc.	Public Utilities				
	Fixed	Movable	Fixed	Movable		Growing	Stored		Fixed	Movable						
Washington Coastal Basins																
Snohomish River....................	EF 100.0	....	....	....	....	....	....	....	....	....	20.0	....	....	....	120 0	....
Total	100.0	....	....	....	....	....	....	....	....	....	20.0	....	....	....	120.0	....
Grand Total	21,725.2	1,149.7	12,366.7	916.6	6,281.7	60,002.6	343.5	253.2	5,534.9	2,172.9	14,117.4	1,180.4	10,482.5	17,506.0	154,033.3	52

A. Includes all residential
B. Includes all commercial
C. Includes public utilities, public property, streets and highways
D. By U.S. Engineers
E. Includes all urban
F. Includes all rural
G. Includes public utilities
H. By Tennesee Valley Authority

LOSS OF LIFE AND PROPERTY IN THE UNITED STATES FROM FLOODS

Property Losces in Thousands of Dollars
BY DISTRICTS AND YEARS, 1925-1961

District	1925		1926		1927		1928		1929		1930		1931		1932	
	Life	Property	Life	Property	Life	Property	Life	Property	Life	Property	Life	Property	Life	Property	Life	Property
Great Lakes----------	---	--------	---	19	48	15,750	---	--------	---	171	---	36	---	1	---	1
North Atlantic-------	---	50	---	137	40	29,408	3	2,105	---	245	---	--------	---	1,050	---	25
South Atlantic-------	---	2,999	---	--------	---	1	5	8,382	8	10,196	---	--------	---	31	---	191
East Gulf------------	2	615	---	37	8	255	---	2,428	5	8,746	---	466	---	174	---	615
Ohio Valley----------	---	33	2	5,523	94	15,639	4	10,279	34	17,050	---	7,042	---	1	---	288
* Upper Mississippi----	14	3,983	1	5,435	---	19,612	---	1,173	---	3,677	---	15	---	20	---	88
Lower Mississippi----	---	115	---	42	100	133,898	---	7,819	4	9,980	---	530	---	--------	---	1,840
Missouri-------------	---	--------	6	1,434	1	4,880	2	6,714	13	2,118	---	13	---	886	---	451
Arkansas-------------	---	224	6	8,938	132	26,183	1	4,349	12	7,516	---	213	---	6	---	2,528
Red------------------	---	--------	1	155	---	100,908	---	153	1	100	14	3,616	---	19	---	516
West Gulf------------	6	1,436	---	301	---	208	---	75	---	8,124	---	924	---	2	11	3,522
Colorado-------------	---	--------	---	447	---	12	---	100	12	175	---	--------	---	3	---	13
Pacific--------------	14	468	---	--------	---	902	---	1,032	---	--------	---	--------	---	560	---	217
Miscellaneous east of Rockies------------	---	--------	---	1,000	---	--------	---	--------	---	--------	---	2,500	---	--------	---	--------
Miscellaneous west of Rockies------------	---	--------	---	--------	---	--------	---	--------	---	--------	---	495	---	55	---	--------
Total	36	9,923	16	23,468	423	347,656	15	44,611	89	68,098	14	15,850	---	2,808	11	10,295

District	1933		1934		1935		1936		1937		1938		1939		1940	
Great Lakes----------	---	14	---	--------	---	13,185	1	9	---	690	---	240	---	11	2	--------
North Atlantic-------	2	5,418	---	142	52	16,340	24	146,035	---	2,689	8	37,068	2	56	4	2,519
South Atlantic-------	---	19	---	240	---	77	2	2,391	---	989	---	455	---	454	12	5,034
East Gulf------------	---	444	---	13	---	719	---	1,240	---	357	---	1,655	1	6,680	---	5,497
Ohio Valley----------	5	7,725	2	928	5	8,536	82	122,296	65	413,936	8	4,481	80	3,773	28	8,077
* Upper Mississippi----	4	1,157	12	1,023	---	1,506	---	313	3	1,127	2	3,659	---	228	---	199
Lower Mississippi----	---	6,933	---	--------	17	6,631	---	55	72	6,657	---	1	---	1,448	---	--------
Missouri-------------	2	1,391	6	1,906	125	38,959	---	109	2	1,367	71	4,333	---	610	5	1,759
Arkansas-------------	---	776	---	18	4	8,344	6	817	---	1,557	---	2,202	---	179	2	1,332
Red------------------	---	38	22	640	8	2,751	---	16	---	24	---	755	---	22	---	12
West Gulf------------	---	1,160	---	422	20	29,522	24	8,376	---	1,830	6	6,003	---	360	7	7,622
Colorado-------------	---	--------	1	22	---	--------	---	--------	---	264	---	256	---	13	---	180
Pacific--------------	20	11,604	45	5,008	5	557	3	892	---	9,245	85	39,990	---	--------	---	8,236
Total	33	36,679	88	10,362	236	127,127	142	282,549	142	440,738	180	101,098	83	13,834	60	40,467

District	1941		1942		1943		1944		1945		1946		1947		1948	
Great Lakes----------	---	--------	---	153	1	9,564	---	130	---	119	---	251	1	5,761	4	20,270
North Atlantic-------	---	--------	35	22,321	4	1	---	--------	3	5,729	14	8,500	---	198	4	12,467
South Atlantic-------	---	89	---	608	---	152	---	1,926	3	1,007	---	172	---	944	1	1,372
East Gulf------------	---	24	2	155	---	773	---	2,660	---	268	---	2,963	2	654	---	3,122
Ohio-----------------	---	1,122	16	16,546	44	31,416	---	806	27	52,887	---	10,914	5	7,812	16	16,871
* Upper Mississippi----	---	3,018	1	5,592	16	42,097	7	27,031	---	9,288	4	8,642	27	87,937	---	2,905
Lower Mississippi----	---	--------	---	475	---	829	---	1,550	---	3,601	---	4,407	1	2,555	---	5,390
Missouri-------------	2	12,019	1	22,511	13	62,630	13	44,616	4	34,403	---	8,305	18	163,176	1	31,490
Arkansas-------------	9	13,346	---	6,577	26	41,850	10	11,171	20	15,068	---	1,791	1	1,424	14	18,721
Red------------------	---	1,855	---	2,205	---	44	---	1,676	6	22,209	---	1,434	---	1,446	---	220
West Gulf------------	34	5,458	2	12,489	---	2,589	3	8,938	4	10,987	10	15,967	---	330	1	4,604
Colorado-------------	2	1,061	---	3	---	310	---	575	10	182	---	--------	---	3	---	1
Pacific--------------	---	1,532	11	8,872	3	7,477	---	--------	14	9,530	---	7,367	---	88	37	111,826
Great Basin----------	---	--------	---	--------	---	--------	---	--------	---	520	---	100	---	--------	---	--------
Total	47	39,524	68	98,507	107	199,732	33	101,079	91	165,798	28	70,813	55	272,328	82	229,959

District	1949		1950		1951		1952		1953		1954		1955		1956	
Great Lakes----------	---	1,619	9	33,542	---	131	---	2,350	1	2,654	---	15,000	---	2,596	---	1,327
North Atlantic-------	11	9,273	2	7,149	1	916	5	1,222	1	10,637	11	7,337	211	761,303	11	1,453
South Atlantic-------	3	291	---	1,203	---	9	---	236	---	109	1	546	2	902	3	2,720
East Gulf------------	---	1,747	---	1,435	---	4,310	---	347	2	2,444	---	543	6	5,300	1	1,379
Ohio-----------------	7	4,754	50	25,195	1	4,889	14	4,940	5	778	9	18,594	15	14,645	12	17,836
*Upper Mississippi----	---	406	2	11,060	6	71,799	7	22,439	2	5,602	4	24,656	---	85	---	388
Lower Mississippi----	---	10,020	6	10,071	---	5,996	---	444	12	7,857	---	490	---	1,352	---	865
Missouri-------------	6	33,503	18	35,090	31	889,872	8	181,335	14	44,255	---	11,999	1	2,753	1	6,360
Arkansas-------------	---	6,696	---	8,294	10	44,331	---	5	2	2,020	---	296	2	5,362	---	24
Red------------------	2	365	1	1,105	---	2,101	---	836	---	2,061	---	923	---	2,003	1	250
West Gulf------------	18	22,462	---	417	---	238	10	9,584	1	34,849	29	21,639	2	4,286	3	3,714
Colorado-------------	---	155	---	--------	---	889	---	76	---	7	---	1,890	---	2,173	---	--------
Pacific--------------	1	2,640	5	37,362	2	3,260	10	20,251	---	8,931	1	2,929	63	186,785	6	27,930
Great Basin----------	---	--------	---	4,127	---	--------	---	9,999	---	--------	---	--------	---	5,946	4	442
Total	48	93,931	93	176,050	51	1,028,741	54	254,064	40	122,204	55	106,842	302	995,491	42	64,688

District	1957		1958		1959		1960		1961	
Great Lakes----------	1	1	---	10	---	12,746	2	1,942	1	216
North Atlantic-------	---	11	---	167	---	6,952	2	15,274	---	1,168
South Atlantic-------	---	166	---	3,917	---	631	---	172	---	600
East Gulf------------	---	4,526	---	3,434	---	241	---	13,780	3	30,386
Ohio-----------------	25	135,972	10	68,248	8	82,503	1	7,519	31	33,748
*Upper Mississippi----	8	14,648	---	20,770	8	3,427	2	12,901	4	25,320
Lower Mississippi----	6	15,608	---	11,979	---	199	---	496	---	11,462
Missouri-------------	15	26,057	21	45,819	3	12,162	8	28,105	7	33,990
Arkansas-------------	5	50,082	---	360	2	12,886	1	3,480	1	9,173
Red------------------	6	16,037	---	11,768	---	880	---	226	---	1,609
West Gulf------------	16	73,057	6	18,127	4	2,886	14	8,205	1	2,945
Colorado-------------	---	741	---	240	---	100	---	--------	3	552
Pacific--------------	---	23,397	10	33,404	---	5,638	2	876	1	1,825
Great Basin----------	---	--------	---	12	---	4	---	--------	1	1,039
Total	82	360,303	47	218,255	25	141,255	32	92,976	52	154,033

* Including Red River of the North

LOSS OF LIFE AND PROPERTY IN THE UNITED STATES FROM FLOODS

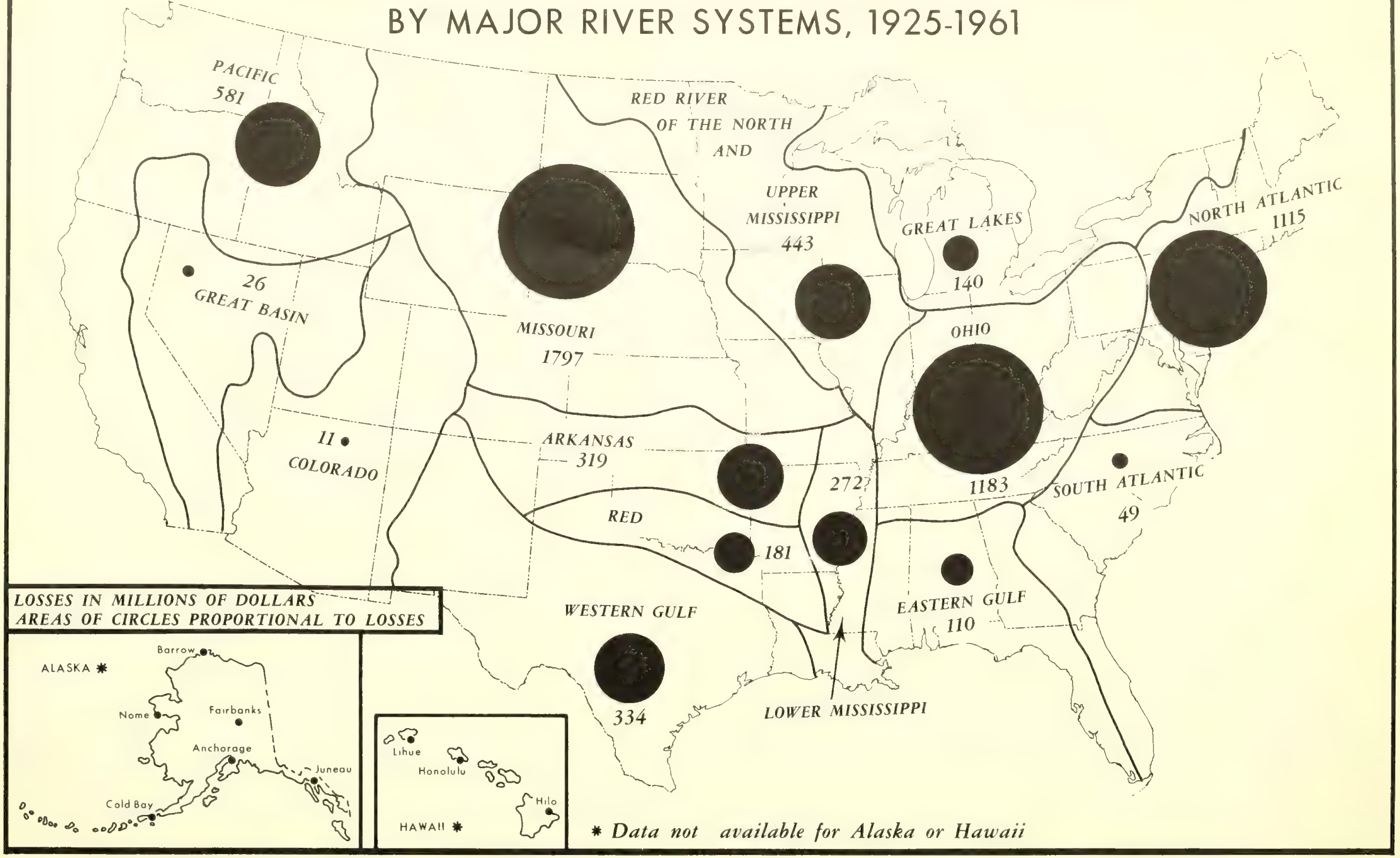
Property Losses in Thousands of Dollars
BY MONTHS AND YEARS, 1925-1961

	January		February		March		April		May		June	
Year	Property	Life	Property	Life	Property	Life	Property	Life	Property	Life	Property	Life
1925	3,614	2	141	0	74	0	-	0	65	6	3,980	14
1926	19	0	600	0	77	0	293	0	-	0	-	1
1927	2,626	8	1,867	0	407	0	283,207	232	7,566	95	1,125	0
1928	4	0	9	0	758	0	1,168	0	105	0	12,296	1
1929	122	0	2,964	0	21,947	47	1,937	0	15,668	5	10,268	5
1930	7,110	0	7	0	146	0	-	0	5,021	14	3,042	0
1931	-	0	30	0	572	0	-	0	8	0	13	0
1932	1,207	0	-	0	165	0	373	0	1,552	0	1,245	0
1933	308	0	87	0	2,008	1	2,709	4	10,785	4	2,650	4
1934	5,002	45	9	0	706	0	1,693	34	-	0	899	0
1935	297	0	1	0	2,177	4	2,698	5	16,903	40	62,702	122
1936	341	0	2,107	6	145,936	24	124,743	82	1,118	6	124	0
1937	411,481	65	7,691	75	62	0	4,524	0	2,627	0	5,429	0
1938	260	0	3,712	2	27,819	86	3,008	0	12,402	0	3,624	58
1939	3	0	1,657	4	738	0	1,982	0	37	0	4,271	1
1940	58	0	7,246	0	1,048	2	2,185	0	438	0	2,790	12
1941	3	0	516	0	820	2	1,970	4	3,081	7	12,718	12
1942	131	0	1,901	1	327	0	18,369	2	14,837	31	25,586	1
1943	3,579	4	69	5	7,183	8	10,161	5	130,478	57	41,771	0
1944	3	0	35	1	2,633	3	42,646	13	24,103	0	24,535	16
1945	146	0	5,882	0	33,202	14	54,054	36	23,530	0	28,866	8
1946	13,385	0	4,015	0	631	0	2	0	12,587	12	20,343	3
1947	486	3	96	0	1,458	0	56,037	2	18,032	1	193,134	48
1948	6,479	6	11,429	1	17,896	4	28,667	15	107,244	35	22,160	15
1949	9,772	6	5,073	2	11,676	3	9,261	2	18,195	10	32,861	17
1950	4,619	3	6,925	7	3,451	7	14,668	0	51,126	21	22,340	34
1951	884	0	5,823	2	7,264	1	18,287	2	15,166	6	5,383	8
1952	9,139	14	926	1	1,909	9	199,127	10	6,438	3	22,775	2
1953	8,575	1	368	0	10,675	2	-	0	41,656	5	53,572	29
1954	2,554	4	84	0	20	0	557	0	6,213	1	52,076	20
1955	-	0	1,620	4	17,372	17	2,653	4	9,231	2	3,825	1
1956	9,455	0	2,731	3	3,403	2	1,202	0	24,799	10	2,300	4
1957	61,383	15	29,750	2	-	0	106,130	18	44,182	13	101,696	32
1958	273	0	12,501	11	11,193	0	21,145	3	24,884	2	67,537	0
1959	95,601	8	2,448	0	2,031	6	427	0	7,181	8	890	0
1960	534	1	713	2	29,988	4	28,056	0	2,214	3	9,956	13
1961	32	0	13,870	1	14,242	3	5,053	0	67,785	6	4,324	4
Total	659,485	185	134,903	130	382,014	249	1,048,982	473	727,257	403	863,106	485
Average	17,824	5	3,646	4	10,325	7	27,456	13	19,656	11	23,327	13

Year	July		August		September		October		November		December		* Total	
1925	140	0	275	0	1,171	14	380	0	83	0	-	0	9,923	36
1926	55	0	7	0	7,729	6	12,699	6	135	0	1,854	3	23,468	16
1927	241	0	3,460	0	-	0	1,627	0	45,093	88	437	0	347,656	423
1928	13,339	0	9,272	3	4,047	5	-	0	3,567	6	46	0	44,611	15
1929	4,959	32	130	0	92	0	9,379	0	556	0	76	0	68,098	89
1930	244	0	251	0	-	0	29	0	-	0	-	0	15,850	14
1931	1,215	0	201	0	2	0	1	0	744	0	22	0	2,808	0
1932	1,627	0	763	0	2,666	11	335	0	3	0	359	0	10,295	11
1933	1,117	0	6,516	4	489	0	10	0	-	0	10,000	16	36,679	33
1934	178	0	322	9	84	0	28	0	1,287	0	154	0	10,362	88
1935	29,370	52	159	5	7,551	0	2,691	0	61	0	2,517	8	127,127	236
1936	2,428	20	205	0	5,046	4	378	0	118	0	5	0	282,549	142
1937	124	2	760	0	140	0	256	0	97	0	7,546	0	440,738	142
1938	10,373	9	232	8	39,641	17	3	0	5	0	19	0	101 098	180
1939	1,725	78	3,408	0	13	0	-	0	-	0	-	0	13,834	83
1940	5,314	0	18,853	40	2,135	6	88	0	95	0	217	0	40,467	60
1941	314	0	23	0	6,247	15	10,446	7	3,361	0	25	0	39,524	47
1942	13,064	17	267	0	3,234	0	5,678	2	-	0	15,113	14	98,507	68
1943	2,870	3	3,621	25	-	0	-	0	-	0	-	0	199,732	107
1944	3,198	0	928	0	1,708	0	108	0	-	0	1,182	0	101,079	33
1945	8,280	3	2,942	13	1,059	3	1,424	3	-	0	6,413	11	165,798	91
1946	1,636	4	1,148	0	7,346	9	1,965	0	1,314	0	6,441	0	70,813	28
1947	652	1	1,431	0	455	0	248	0	5	0	304	0	272,328	55
1948	17,550	2	1,144	0	590	0	-	0	3,553	0	13,247	4	229,959	82
1949	3,762	5	568	0	618	0	1,551	2	578	1	16	0	93,931	48
1950	19,224	6	1,687	0	3,718	4	5,562	3	6,638	3	36,092	5	176,050	93
1951	972,458	25	2,509	7	621	0	-	0	-	0	346	0	1,028,741	51
1952	3,858	9	296	0	9,376	6	-	0	30	0	190	0	254,064	54
1953	3,873	1	1,926	2	887	0	42	0	300	0	330	0	122,204	40
1953	2,218	2	6,606	3	3,170	8	33,341	17	-	0	3	0	106,842	55
1955	1,071	0	712,085	193	3,471	0	52,442	18	1,168	0	190,553	63	995,491	302
1956	5,849	15	11,671	4	-	0	1,892	0	137	3	1,249	1	64,688	42
1957	4,669	0	722	2	335	0	2,663	0	8,610	0	163	0	360,303	82
1958	42,779	29	18,631	1	14,560	0	2,336	1	2,416	0	-	0	218,255	47
1959	557	0	5,550	0	1,844	0	19,602	3	4,970	0	154	0	141,255	25
1960	9,038	1	677	0	5,266	2	5,818	6	360	0	356	0	92,976	32
1961	5,825	25	3,974	6	26,041	7	580	0	1,641	0	10,666	0	154,033	52
Total	1,195,195	341	823,220	325	161,352	117	173,602	68	86,925	101	306,095	125	6,562,136	3,002
Average	32,303	9	22,249	9	4,361	3	4,692	2	2,345	3	8,273	3	177,355	81

* Not adjusted to present price index

DISTRIBUTION OF ESTIMATED FLOOD LOSSES IN THE UNITED STATES BY MAJOR RIVER SYSTEMS, 1925-1961



LOSSES IN MILLIONS OF DOLLARS
AREAS OF CIRCLES PROPORTIONAL TO LOSSES

✱ *Data not available for Alaska or Hawaii*

LOSSES IN INDIVIDUAL SEVERE FLOODS IN THE UNITED STATES SINCE JULY 1902

Property Losses in Thousands of Dollars

Date	Location	Lives #	Property
May-June 1903	Kansas, Lower Missouri, and Upper Mississippi Rivers	100	$ 40,000
July 1908	Missouri River	---	9,339
	Upper Mississippi River	---	5,600
	Red River	---	16,200
July 1909	Missouri River east of Kansas City	---	5,500
March 1912	Lower Mississippi River	---	70,000
March 1913	Ohio River and tributaries	467	147,000
	Mississippi River	---	7,000
December 1913	Texas rivers	177	9,000
June 1915	Kansas River	---	5,950
August 1916	Rivers of the Carolinas	---	21,700
June 1921	Arkansas River in State of Colorado	120	25,000
September 1921	Texas rivers	215	19,000
April-May, 1922*	Upper Mississippi River	---	4,700
	Ohio Valley	---	4,000
	Lower Mississippi River	---	7,500
October 1923	Lower Arkansas, including the State of Oklahoma	---	15,000
March 1924	Potomac River	---	6,000
Spring of 1927	Mississippi Valley	313	284,118
August 1927	Arkansas River and tributaries	---	3,440
November 1927	New England rivers	88	45,578
June 1928	Ohio Valley	---	7,536
August 1928	South Atlantic drainage	---	4,400
September 1928	South Atlantic drainage	---	4,000
March-June 1929	East Gulf drainage	---	8,000
	Ohio Valley	---	16,500
	Missouri Valley	---	2,000
	Upper Mississippi Valley	---	3,600
	Lower Mississippi Valley	---	10,000
	Arkansas-White Valley	---	2,700
	Rivers in Texas	---	8,000
July 1929	Rivers in Central Kansas	---	4,000
October 1929	Rivers in Southeastern States	---	** 9,000
January 1930	White-Wabash Rivers	---	7,000
May 1930	Red River and tributaries	---	3,000
Sept.-Oct. 1932	Lower Rio Grande	---	2,500
March 1933	Ohio River	---	2,000
December 1933	Columbia River and tributaries	---	10,000
May 1935	Rivers in eastern Colorado	---	6,000
May-June 1935	Republican and Kansas Rivers	110	18,000
	Lower Missouri River	---	10,000
July 1935	Upper Susquehanna tributaries	52	26,000
December 1935	Houston, Texas, area	---	2,500
March-April 1936	Rivers in Eastern United States	107	270,000
July 1936	Rivers in central Texas	---	2,000
September 1936	Rivers in central and northern Texas	---	5,000
Jan.-Feb. 1937	Ohio and lower Mississippi River basins	137	417,685
December 1937	Sacramento Valley	---	7,100
March 1938	Streams in southern California	79	24,500
September 1938	Rivers in New England	---	37,000
July 1939	Licking and Kentucky Rivers	78	1,715
Feb.-Mar. 1940	Sacramento Valley	---	6,700
August 1940	Rivers in southern Virginia, the Carolinas, and eastern Tennessee	40	12,000
Oct.-Nov. 1941	Arkansas River Basin	---	8,500
April-June 1942	Upper Mississippi, Missouri, Arkansas, Red, and Trinity River Basins	---	44,350
May 1942	Delaware & Susquehanna River Basins	33	13,000
July 1942	Upper Allegheny River and Sennemahoning Creek Basins	15	10,000
Nov.-Dec. 1942	Willamette River	10	6,900
Dec.1942-Jan.1943	Ohio River	---	10,540
Apr.-June 1943	Maumee, Wabash, upper Mississippi, Missouri, White, and Arkansas River Basins	60	172,500
August 1943	Little Kanawha	23	1,300

LOSSES IN INDIVIDUAL SEVERE FLOODS IN THE UNITED STATES SINCE JULY 1902-Cont'd

Property Losses in Thousands of Dollars

Date	Location	Lives #	Property
April-June 1944	Upper Mississippi, Missouri, Arkansas, Red, lower Mississippi Basins and east Texas Streams	17	$ 82,000
Feb.-Mar. 1945	Ohio River	18	30,000
Feb.-Apr. 1945	Trinity and Sabine Rivers	---	9,000
Mar.-July 1945	Lower Mississippi River	---	9,500
July 1945	Lake Section of Rensselaer County, N. Y.	---	3,500
December 1945	Willamette River	9	6,000
January 1946	Cumberland River	---	3,925
	Tennessee River and tributaries	---	4,500
May-June 1946	Trinity River	---	4,150
September 1946	San Antonio and Nueces Rivers	9	6,050
December 1946	Willamette River	---	5,525
April 1947	Allegheny	---	4,319
May-July 1947	Rivers in Middle West in the lower Missouri and middle Mississippi River Basins	29	235,000
June 1947	East Creek at Rutland, Vt.	---	2,000
March 1948	Susquehanna River and tributaries	---	4,300
Apr.-May 1948	Red River of North and tributaries	---	18,700
May-June 1948	[1] Columbia Basin	35	101,725
June-July 1948	Arkansas River and minor tributaries	---	14,500
December 1948	Housatonic River	---	4,200
April 1949	Rio Grande	---	3,300
May 1949	Trinity River	10	14,000
June 1949	Shenandoah and Potomac Rivers	11	8,850
Apr.-May 1950	[2] Red River of North	9	33,000
June 1950	Central West Virginia	31	4,020
Nov.-Dec. 1950	Central Valleys of California and Western Nevada	---	23,000
February 1951	Western Washington	---	2,688
Mar.-Apr. 1951	Alabama-Georgia	---	3,292
April 1951	Upper Mississippi Basin	---	18,622
June-July 1951	[3] Kansas-Missouri	28	935,224
Jan.-Feb. 1952	Ohio River	---	1,898
April 1952	[4] Red River of the North-Upper Mississippi-Missouri River Basins	11	198,000
May 1952	Great Basin	---	8,373
September 1952	West Gulf of Mexico Drainage	---	7,762
January 1953	Northern California, Oregon, and Washington	---	5,971
March 1953	New England States	---	10,000
Apr.-May 1953	Louisiana-Texas	12	38,959
June 1953	Northwestern Iowa	14	32,950
June 1954	Middle Rio Grande and lower Pecos	16	19,079
October 1954	Pecos River in New Mexico	13	1,783
March 1955	Ohio Basin	15	14,396
August 1955	[5] Hurricane floods in Northeast	187	714,079
December 1955	[6] West Coast	61	154,532
May-June 1956	[7] Columbia and Kootenai Rivers	---	14,025
Jan.-Feb. 1957	[8] Streams in Southeastern Kentucky, Southwestern West Virginia, adjoining portions of Tennessee and Virginia	14	58,000
February 1957	Snake River and tributaries	---	20,500
Apr.-June 1957	Streams in Texas, Arkansas, Kansas, Louisiana, Missouri and Oklahoma	18	105,000
June-July 1957	Wabash River and tributaries	9	63,000
June 1958	White and Wabash Rivers	---	57,000
July 1958	Flash flood on East Nishnabotna River in Iowa	19	5,850
January 1959	Ohio River Basin	8	81,921
January 1959	Lake Erie Drainage in Ohio and New York	---	11,265

LOSSES IN INDIVIDUAL SEVERE FLOODS IN THE UNITED STATES SINCE JULY 1902-Cont'd

Property Losses in Thousands of Dollars

Date	Location	Lives #	Property
Mar.-Apr. 1960-----	[9]Snowmelt Floods in the Missouri and Upper Mississippi Basins------------	7	$ 34,466
March 1961----------	Upper Mississippi Basin--------------------	---	7,499
July 1961-----------	Flash Flood on Small Streams in Charleston, W. Va.-----------------------	22	3,238
September 1961------	Kansas-Missouri----------------------------	---	23,557

# Loss of Life Carried Only Where Considerable
* No Lives Lost in Mississippi Valley Floods of 1922
** Partly Storm Damage Caused by Tropical Disturbance

References

1. Monthly Weather Review, January 1949
2. Monthly Weather Review, September 1951
3. Technical Paper No. 17
4. Technical Paper No. 23
5. Technical Paper No. 26
6. Climatological Data, National Summary, December 1955
7. Climatological Data, National Summary, Annual 1956
8. Climatological Data, National Summary, January 1957
9. Technical Paper No. 45

FLOOD DAMAGE ESTIMATES BY STATES

1955-61

Flood Damages in Thousands of Dollars

States	1955	1956	1957	1958	1959	1960	1961
Alabama	3,379	720	2,324	872	-	670	12,625
Alaska	-	*	-	-	-	-	**
Arizona	226	-	-	-	100	-	325
Arkansas	61	255	27,938	6,202	3,090	580	3,503
California	165,767	8,745	13	33,063	4	516	95
Colorado	2,567	5,135	2,901	240	-	-	-
Connecticut	379,360	-	-	-	-	750	-
Delaware	117	-	-	-	-	-	-
District of Columbia	-	51	-	60	-	-	-
Florida	105	1,891	-	-	150	12,047	317
Georgia	1	212	1,068	323	-	392	5,236
Hawaii	-	-	-	400	-	-	-
Idaho	1,371	6,222	20,896	3	500	-	939
Illinois	102	1,026	1,206	17,970	1,506	7,503	11,553
Indiana	1,003	4,021	66,748	52,302	12,958	2,649	13,306
Iowa	35	51	1,543	7,508	128	7,612	9,389
Kansas	474	33	9,164	4,606	4,061	1,947	13,397
Kentucky	6,629	568	55,233	3,817	2,480	3	12,969
Louisiana	30	-	4,147	2,842	-	112	6,074
Maine	-	-	-	-	61	-	800
Maryland	5,450	837	-	40	-	-	-
Massachusetts	155,982	-	-	-	-	6,400	-
Michigan	-	1,278	-	-	-	1,181	-
Minnesota	-	11	9,128	17	50	212	552
Mississippi	3,132	1,270	2,693	13,826	280	744	15,918
Missouri	666	167	9,618	38,718	6,018	13,506	27,375
Montana	63	317	33	1	82	57	-
Nebraska	1,500	865	5,983	3,064	3,753	8,884	674
Nevada	7,398	237	-	-	-	-	891
New Hampshire	-	-	-	-	4,500	100	-
New Jersey	23,102	-	-	3	-	-	-
New Mexico	1,066	-	-	-	-	-	-
New York	30,072	1,089	166	42	5,667	7,229	608
North Carolina	625	831	788	3,201	506	100	1,400
North Dakota	2	-	100	-	28	136	-
Ohio	753	1,056	7	4,867	54,840	191	1,217
Oklahoma	977	-	35,665	169	8,907	2,638	2,483
Oregon	9,515	6,376	310	363	20	360	757
Pennsylvania	141,381	7,199	1,048	3,582	21,109	3,072	612
Rhode Island	28,830	-	-	-	-	-	-
South Carolina	74	-	60	680	123	72	369
South Dakota	11	10	3,969	-	-	3,417	1
Tennessee	977	279	5,118	128	-	226	2,263
Texas	5,165	3,715	78,881	18,101	2,886	8,093	2,846
Utah	226	210	169	10	4	-	281
Vermont	-	-	3	-	-	-	-
Virginia	10,695	-	139	-	28	211	231
Washington	1,165	6,472	1,664	50	4,914	-	130
West Virginia	5,187	3,185	11,052	1,170	709	370	3,455
Wisconsin	50	335	-	-	1,791	996	1,442
Wyoming	200	11	526	3	-	-	-
TOTAL	995,491	64,688	360,303	218,255	141,255	92,976	154,033

* Major Flood in May

** Major Flood in June

GENERAL SUMMARY OF RIVER AND FLOOD CONDITIONS

YEAR 1962

The most damaging floods during 1962 occurred during the latter part of February and the first part of March. The flooding was especially severe in Kentucky and in southeastern Idaho. Many streams in those areas reached record proportions.

The severe flooding which began in the East Gulf of Mexico Drainage during December 1961 continued into January 1962. Additional rains toward the end of January caused additional flooding on the Tombigbee and Warrior Rivers, but the flooding was not as severe as in December. Record flooding occurred on the Rocky River at Norwood, N. C. One of the worst ice jams of recent years occurred on the Kansas River in Kansas, causing considerable damage. Numerous ice jams were reported on widely scattered streams from the Continental Divide eastward to the Atlantic coast. Flooding reported elsewhere was mostly light to moderate.

Severe flooding occurred in Kentucky and southeastern Idaho during February. Flooding along the Red River in Kentucky was of record proportions. A few cities were isolated or inundated by the rising waters. Severe flash flooding occurred in the headwaters of the Licking River and on creeks flowing into the North Fork of the Kentucky River. The highest stages of record occurred along the upper Green River in Kentucky. Maximum floods of record occurred in southeastern Idaho in the Portneuf, Blackfoot, and Henrys Fork Basins. Damage in this area was heavy and was estimated at $7.5 million. Many families were driven from their homes.

During March and April, the Floyd and the Big Sioux Rivers in Iowa produced the largest snowmelt floods in this century, breaking the record set by the 1960 floods. Flooding on the Vermillion and James Rivers in South Dakota was slightly above the 1960 flood levels. Road and bridge damage was heavy along the Vermillion and the Big Sioux Rivers. The Ohio River flood at Cincinnati, Ohio, during March was the highest since 1948 and the third highest since 1937. Flooding on the Green River was the highest since 1937 at Brownsville, Ky., and since 1950 at Calhoun, Ky. Serious flooding occurred on streams in southeastern Minnesota.

Several villages and towns in Alaska were flooded during May due to ice jams on the Tanana, Kuskokwim, and Yukon Rivers. Residents of Minto Village on the Tanana River, Aniak on Kuskokwim, and Fort Yukon on the Yukon River were evacuated to higher ground and many homes were inundated. Flooding reported in the forty-eight contiguous states was mostly minor.

Near record stages for recent times occurred on the North Fork of the Smoky Hill River in northwest Kansas during June. Heavy tributary flooding was reported in this area on Beaver and Sappa Creeks. Severe flash floods occurred in Oklahoma. Serious flooding occurred in some areas of Alaska during June. Most of the flooding resulted from runoff along the main stem of the Yukon. Most of the residents of Stevens Village and Chalkyitsik were evacuated.

Severe thunderstorms during July caused numerous flash floods along small creeks in the Missouri and Ohio Basins. One of the most destructive of these occurred along Rapid Creek and its tributaries west of Rapid City, S. Dak. More than 1,200 persons were forced to leave their homes. Another severe flash flood occurred on Banklick Creek in the Sanfordville, Ky., area where one woman was drowned when her home was washed downstream. Severe flooding occurred on Indian Creek in the upper Republican Basin in Nebraska. Flooding reported along main streams was mostly light.

Heavy flood-producing rains occurred in Puerto Rico during August, causing floods in the La Plata, Bayamon, upper tributaries of the Rio Grande de Loiza, Guamani, and the smaller streams along the southeastern coastal area. Many families were evacuated along the La Plata, Bayamon, and Valenciano Rivers. Flooding reported in continental United States was mostly minor.

Comparatively heavy damages resulted from the tributary overflows in the lower Smoky Hill River Valley in Kansas during September. Lyon Creek in Kansas crested 11 feet over flood stage, or within 2 feet of the record stage of 1951. Flash floods occurred on smaller streams in the West Gulf of Mexico Drainage. This was the third flash flood on Fossil Creek in 6 weeks. Flooding reported along main streams was mostly minor.

Flooding occurred on streams in the south-central coastal sections of Puerto Rico during October. Some people were evacuated from low areas along the rivers near Ponce and Santa Isabel. Flood waters covered the roads and bridges from Ponce to Santa Isabel and in the Salinas-Guayama areas. Many small communities in the Ponce Salinas area were isolated. Flooding reported in continental United States was mostly minor. A major storm system moved through northern California during October, causing record amounts of rainfall at many stations. Peak river crests in the Sacramento Basin were unprecedented for so early in the season. It was the first time that flow has occurred in October over Freemont Weir into Yolo Bypass.

Considerable damage resulted from the flooding in the Columbia Basin during November. There was no other significant flooding reported in continental United States.

Major flooding occurred along small creeks in the Rogue River Basin in Oregon during December. Bear Creek reached the highest flow ever recorded. The Rogue River reached the third highest stage of record. Very little flooding was reported elsewhere in continental United States.

SOLAR RADIATION DATA

Average daily values (direct and diffuse) received
on a horizontal surface, tabulated in langleys.

YEAR 1962

Station	January	February	March	April	May	June	July	August	September	October	November	December	Annual
Albuquerque, N. Mex.	307	394	505	633	774	762	651	666	485	473	328	290	522
Ames, Iowa	199	214	404	410	512	554	509	462	385	246	169	152	351
Annette, Alaska	46	159	236	291	526	467	496	329	248	99	50	32	248
Apalachicola, Fla.	290	361	433	589	646	586	567	555	416	457	322	269	458
Astoria, Oreg.	115	202	279	379	433	528	494	458	340	195	99	84	301
Atlanta, Ga.	185	306	388	---	626	584	567	547	442	413	254	218	---
Barrow, Alaska	---	43	198	409	573	636	453	237	131	55	#10	---	---
Bethel, Alaska	55	103	285	471	402	505	500	277	203	108	41	32	249
Bismarck, N. Dak.	147	234	352	479	392	591	572	604	423	273	149	115	361
Blue Hill Obs., Mass.	171	208	363	429	514	536	449	428	359	252	181	169	338
Boise, Idaho	175	184	342	525	561	689	691	594	492	300	170	121	404
Boston, Mass.	172	208	370	423	496	545	521	424	370	244	162	145	340
Brownsville, Texas	279	363	410	530	589	611	699	602	469	413	330	204	458
Canton Island, Pacific	661	659	637	590	589	---	‡470	529	608	645	654	648	---
Caribou, Me.	150	236	347	382	386	488	423	407	268	172	120	105	290
Charleston, S. C.	226	320	393	571	606	498	547	520	440	414	259	250	420
Cleveland, Ohio	---	148	252	384	473	520	482	479	297	199	101	99	---
Columbia, Mo.	216	244	353	474	579	564	596	583	381	299	199	183	389
Corvallis, Oreg.	116	173	308	455	534	†654	696	514	418	---	119	81	---
Davis, Calif.	226	246	429	593	685	765	746	680	539	330	267	159	472
Dodge City, Kans.	240	---	458	513	582	601	631	612	385	350	239	---	---
El Paso, Texas	342	451	536	666	768	750	642	668	485	474	342	298	535
Ely, Nev.	264	270	476	597	556	732	681	671	556	416	288	252	480
Fairbanks, Alaska	19	63	228	374	481	559	498	340	189	84	30	7	239
Flaming Gorge, Utah	249	312	468	527	555	628	588	550	484	383	259	203	434
Ft. Worth, Texas	270	355	442	443	628	591	611	610	453	365	239	227	436
Fresno, Calif.	161	194	397	537	572	723	756	687	573	392	260	166	452
Gainesville, Fla.	281	381	414	589	599	---	---	---	376	420	332	---	---
Glasgow, Mont.	166	227	389	457	445	624	607	544	399	265	144	107	365
Grand Junction, Colo.	293	279	460	607	610	737	710	685	555	443	294	251	494
Great Falls, Mont.	127	213	353	443	444	604	553	501	380	242	155	109	344
Greensboro, N. C.	179	254	373	528	571	519	558	546	407	358	236	208	395
Griffin, Ga.	237	346	409	561	689	621	597	579	492	453	304	256	462
Cape Hatteras, N. C.	---	285	352	596	627	584	657	571	451	346	207	203	---
Hilo, Hawaii	344	402	406	514	417	510	---	---	---	---	---	---	---
Indianapolis, Ind.	166	196	261	432	526	581	531	509	405	290	165	182	354
Inyokern China Lake, Calif.	352	413	601	778	857	912	873	811	680	516	368	317	623
Ithaca, N. Y.	---	---	295	374	534	520	517	453	280	206	116	110	---
Lake Charles, La.	228	290	346	428	579	462	543	455	427	367	298	208	386
Lander, Wyo.	239	303	446	523	528	642	596	568	468	352	225	195	424
East Lansing, Mich.	147	214	340	---	---	581	516	493	395	226	135	141	---
Laramie, Wyo. (U. of Wyoming)	226	294	433	501	512	544	551	525	442	313	216	170	394
Las Vegas, Nev.	308	364	529	670	705	757	728	678	566	426	314	264	526
Lemont, Ill.	174	192	259	462	472	569	465	501	406	263	159	142	339
Lexington, Ky.	202	---	---	---	645	---	---	---	---	---	---	---	---
Little Rock, Ark.	219	278	432	465	580	519	550	502	366	299	190	175	381
Los Angeles, Calif. (U)	271	254	417	545	605	544	674	647	507	349	260	238	443
Los Angeles, Calif.	281	290	462	564	625	526	620	609	482	353	258	233	442
Madison, Wis.	184	240	382	482	511	589	522	538	---	---	---	---	---
Manhattan, Kans.	209	238	376	505	560	540	535	541	339	294	192	155	374
Matanuska, Alaska	31	96	229	353	389	488	460	306	218	111	51	16	229
Mauna Loa Obs., Hawaii	469	538	549	588	596	678	696	---	575	548	499	459	---
Medford, Oreg.	131	215	316	509	512	727	718	573	468	236	145	94	387
Miami, Fla.	328	444	486	543	599	---	499	460	440	425	334	328	---
Midland, Texas.	270	402	456	538	589	642	587	632	523	416	317	288	472
Nashville, Tenn.	162	221	260	426	568	504	533	485	343	294	155	---	---
Newport, R. I.	174	203	377	431	491	522	510	446	372	246	180	146	342
North Omaha, Nebr.	218	230	363	491	520	554	603	525	407	288	184	169	379
Oak Ridge, Tenn.	168	229	285	426	545	512	510	502	378	302	179	---	---
Oklahoma City, Okla.	243	323	466	435	586	576	564	569	356	329	230	202	407
Page, Ariz.	284	335	486	603	657	693	659	581	506	440	276	229	479
Phoenix, Ariz.	307	369	505	630	696	654	679	623	488	450	321	268	499
Portland, Me.	180	---	---	---	515	---	---	444	385	215	144	---	---
Prosser 4 NE, Wash.	134	240	619	518	556	646	676	519	452	258	133	85	403
Pullman, Wash.	134	213	323	513	555	716	711	549	427	238	118	92	382
Rapid City, S. Dak.	190	274	395	492	450	548	532	543	406	283	183	---	---
Riverside, Calif.	276	289	446	606	646	661	725	681	563	426	313	282	493
St. Cloud, Minn.	168	237	339	476	412	---	---	510	389	253	135	126	---
Salt Lake City, Utah	186	219	474	559	608	728	725	658	564	395	228	178	460
San Antonio, Texas	232	336	398	447	538	582	648	584	458	391	303	232	429
Santa Maria, Calif.	295	297	445	665	705	666	683	647	503	407	297	247	488
Sault Ste. Marie, Mich.	125	229	359	405	496	652	593	472	321	198	127	112	341
Sayville, N. Y.	144	164	354	385	488	470	457	408	314	211	140	113	304
Seattle, Wash. (U. of Wash.)	92	170	251	353	347	514	521	505	328	178	80	62	283
Seattle-Tacoma, Wash.	102	179	284	395	443	569	575	437	350	193	96	82	309
Shreveport, La.	197	259	365	372	558	439	503	520	410	---	---	209	---
Spokane, Wash.	118	196	313	494	507	685	673	474	412	190	93	66	352
State College, Pa.	158	214	376	432	538	563	559	509	336	246	159	149	353
Sterling, Va.	178	217	407	453	512	547	512	486	349	329	197	179	364
Stillwater, Okla.	205	267	400	413	573	---	---	541	345	---	176	170	---
Swan Island, W. I.	---	450	511	474	516	489	531	563	428	376	319	375	---
Tampa, Fla.	315	411	448	572	601	561	555	451	430	452	318	289	450
Tucson, Ariz. (U. of Ariz.)	333	395	510	643	714	729	602	612	491	461	338	280	509

Note: Langley is the unit to denote one gram calorie per square centimeter.
(U) Indicates Urban sites.
† 3 observations.
‡ 10 observations.
# Sun below horizon Nov. 19 through 30, inclusive.

Chart I. Departure from Normal of Annual Temperature (°F) at Surface, 1962.

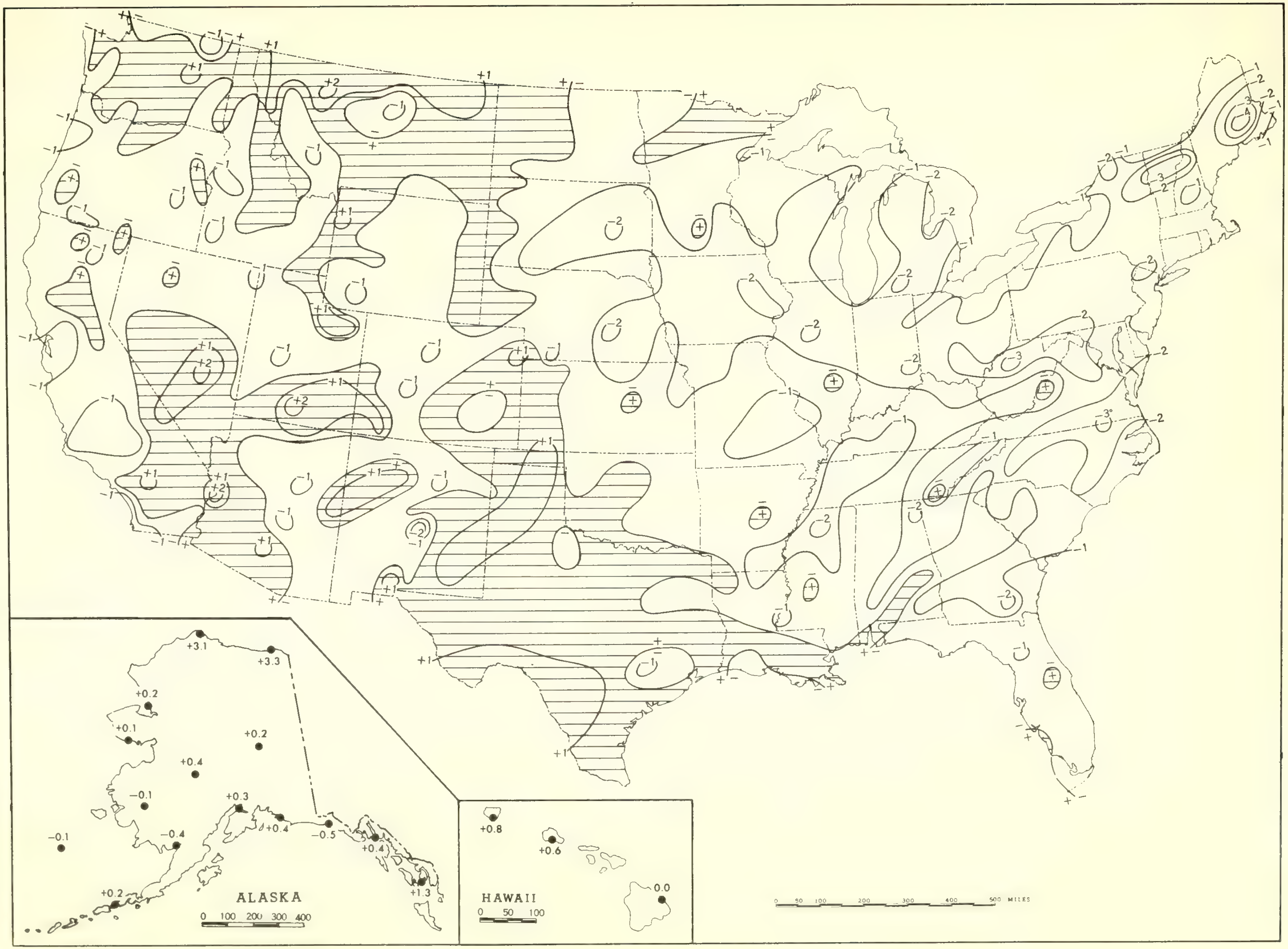


Chart II. Total Annual Precipitation (Inches), 1962.

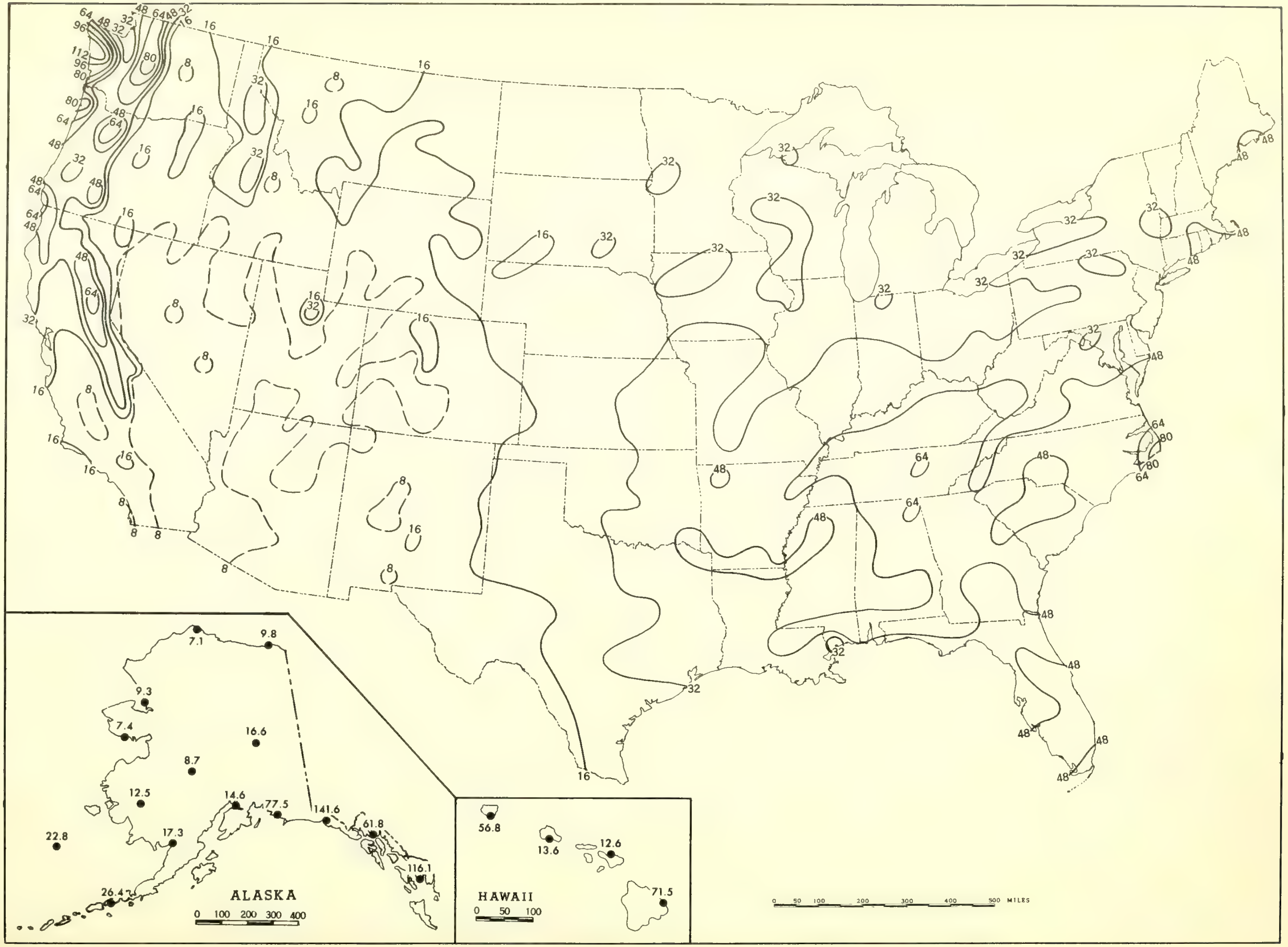


Chart III. Percentage of Normal Annual Precipitation, 1962.

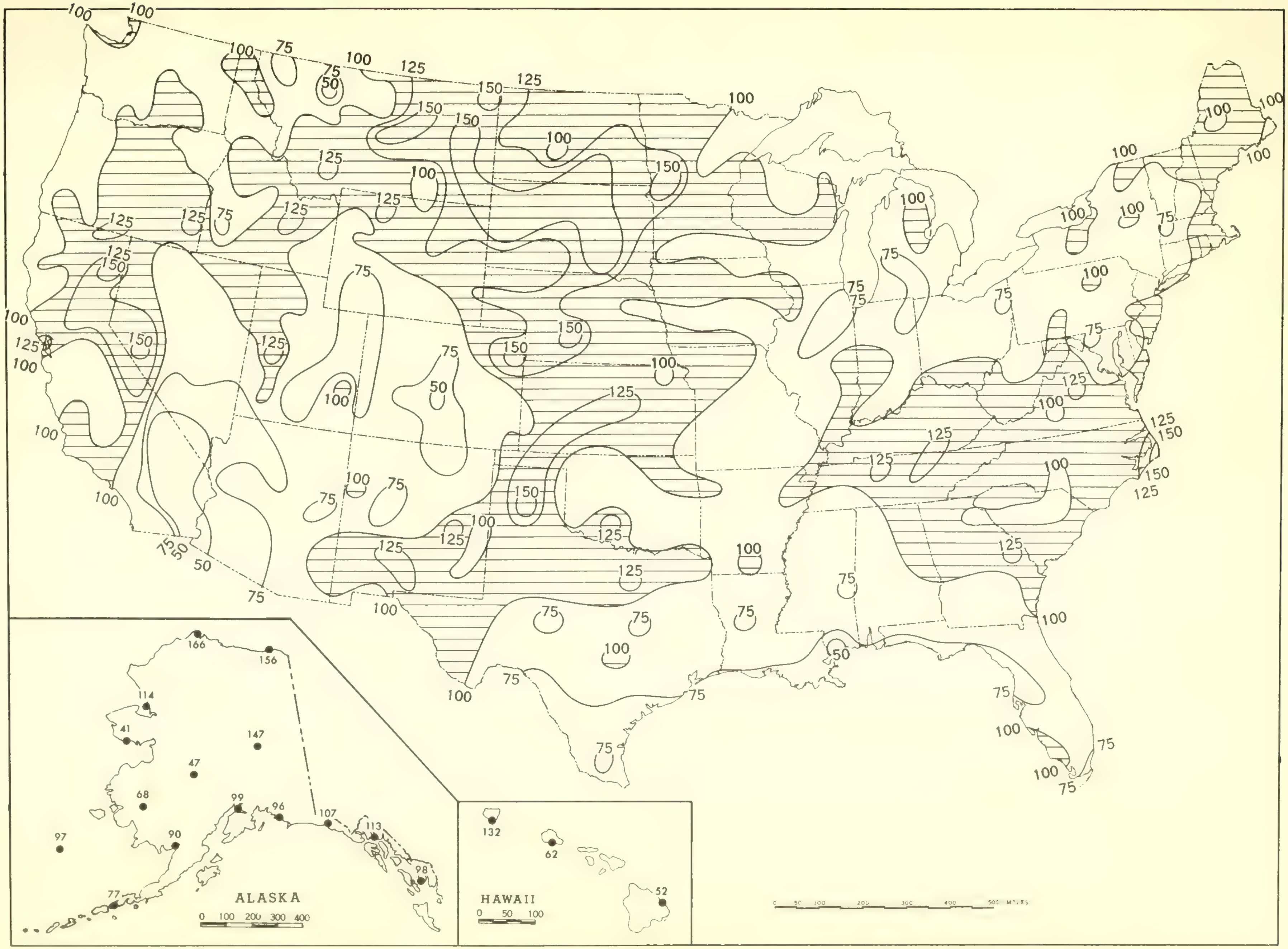
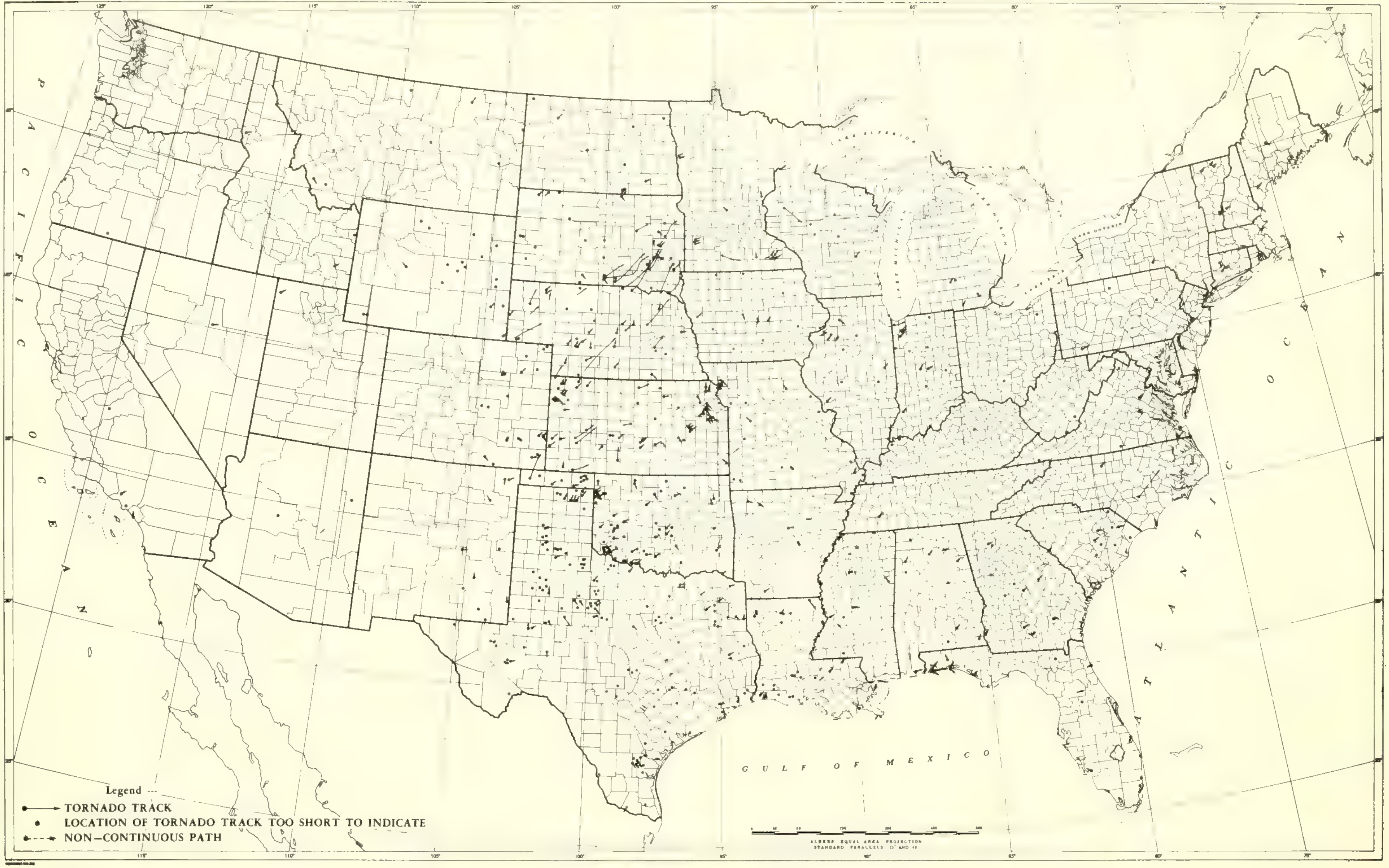


CHART IV

TRACKS OF TORNADOES, 1962



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